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ABSTRACT

The American Council on Rural Special Education (ACRES) conference is the only national conference devoted entirely to rural special education issues; sessions encompass theoretical discussion, current research findings, and promising practices based on sound evidence. This proceedings contains 47 conference papers and poster presentations. Following an introduction and keynote address, the papers are arranged in eight strands covering at-risk students, collaborative education models, early childhood and early intervention, inservice education and training, preservice teacher education, technology, transition to work or postsecondary education, and other. The papers provide a rural perspective on various topics, including issues related to specific learning disabilities; discipline and behavior management; classroom inclusion practices; needs of rural caregivers of young children with disabilities; role and training of paraprofessionals in special education; autism and Asperger syndrome; recruitment and retention of rural special educators; development and delivery of online courses; descriptions and evaluations of various Web-based instructional strategies; teacher collaboration and teamwork; and collaboration between university departments of special education and rural schools. An author index is included. (SV)

American Council on Rural Special Education

2003 Conference Proceedings

Rural Survival

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March 20-22, 2003
Salt Lake City, Utah

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ACRES 2003 Proceedings Introduction

This collection of papers marks the 23rd year that the *American Council on Rural Special Education* (ACRES) has met for its annual national conference. The ACRES Conference is the only national conference devoted entirely to rural special education issues. Our ongoing goal has been to gather and share the most current knowledge, research, experiences, and skills related to rural special education. The *Proceedings* contains an excellent compilation of papers that will be valuable for educators, preservice educators, administrators, service providers, parents, and policy makers.

The *Proceedings* includes paper and poster presentations that were delivered in Salt Lake City, Utah on March 20-22, 2003. The theme for the conference was **Rural Survival**. The conference was planned to include theoretical discussions, current research findings, and promising practices based on sound evidence. The papers are organized into eleven topical strands and represent a wide variety of approaches that address many of the critical issues that affect the delivery of services for individuals with special needs living in rural areas. The strands are: Governmental Policy, At-Risk, Collaborative Education Models, Early Childhood, Multicultural, Parents and Families, Inservice, Preservice, Technology, Transition, and Other. The authors represent professionals from public and private schools; community, state, and national agencies; colleges and universities; and private consulting agencies. We thank each for his or her contribution to rural special education.

We also wish to acknowledge the many individuals who reviewed the abstract proposals for this conference. A review panel of over 50 special education professionals with expertise in specific areas diligently reviewed the proposals and provided valuable feedback to assist presenters in improving the quality of their paper. Each abstract was reviewed by at least three professionals who contributed greatly in helping to maintain the high professional standards of the conference. We are pleased with the overall quality and diversity of the papers that have been submitted, and hope that you will find them informative and useful.

Jack Mayhew, Chair
ACRES Program Committee

Keynote Address

Learning Disabilities Roundtable
Sponsored by the Division of Research to Practice
Office of Special Education Programs
U.S. Department of Education
Washington, DC 20202

Specific Learning Disabilities: Finding Common Ground

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SPECIFIC LEARNING DISABILITIES: FINDING COMMON GROUND

INTRODUCTION

Approximately 2.8 million students have Specific Learning Disabilities (SLD), making up 51 percent of all individuals receiving special education services under the *Individuals with Disabilities Education Act* (IDEA) (22nd Annual Report, 2000). The identification of these individuals, and the system designed to address their needs, is of fundamental concern to a vast spectrum of people, including families, professional educators, and policymakers. In preparation for the reauthorization of IDEA, as well as implementation of the *No Child Left Behind Act*, the Office of Special Education Programs (OSEP) has convened researchers and policy organizations concerned about individuals with SLD in a series of events designed to review the major issues in the field and develop statements of consensus on what is valued and should be promoted to improve programs for these individual students. The goal is to find common ground.

This report summarizes the consensus statements developed by the Learning Disabilities Roundtable, coordinated by the National Center for Learning Disabilities (NCLD), which convened on February 4–5, 2002 and June 17–18, 2002 in Washington, D.C., as part of the OSEP Research to Practice *Learning Disabilities Initiative*. Roundtable participants included member organizations of the National Joint Committee on Learning Disabilities (NJCLD). To understand the context for the statements contained in this report, background leading up to the Roundtable meetings is presented below.

Background

On August 27 and 28, 2001, more than 200 researchers, practitioners, policymakers, and parents of individual students with SLD attended the *Learning Disabilities Summit: Building a Foundation for the Future*, held in Washington, DC. This event was part of the OSEP-sponsored *Learning Disabilities Initiative* on issues related to the identification of individuals with SLD. The Summit showcased a series of research papers prepared by nationally recognized experts in the field. The papers synthesized and organized the most current and reliable research on key issues in the identification and classification of individuals with SLD. Following the Summit, OSEP organized roundtables of key stakeholders. This report represents the work of the learning disabilities organizations that make up the National Joint Committee on Learning Disabilities (NJCLD), in their effort to examine the research papers and find issues on which there exists common ground to all organizations, as well as those that are unique to certain groups.

Roundtable participants worked together to define areas of consensus on essential issues related to the nature of specific learning disabilities, identification, eligibility, intervention, and professional development. The remainder of this report is divided into three sections: 1) description of the methodology used to facilitate the consensus-building process, 2) a narrative description of the statements of consensus developed by the Roundtable participants, and 3) a brief conclusion. Following the conclusion is a report developed by a Roundtable sub-group describing a promising problem-solving approach to identifying individuals with specific learning disabilities (see Exhibit A). Appendices include the list of Roundtable consensus statements and the names of the Learning Disabilities Roundtable participants.

METHODOLOGY

This methodology section outlines the process used by the Learning Disabilities Roundtable to develop their consensus statements and formulate this report. The organizations participating in this event from the *National Joint Committee on Learning Disabilities* (NJCLD) consist of the following:

- Association for Higher Education and Disability, AHEAD
- American Speech-Language-Hearing Association, ASHA
- Council for Exceptional Children's Division for Communicative Disabilities and Deafness, DCDD
- Council for Exceptional Children's Division for Learning Disabilities, DLLD
- Council for Learning Disabilities, CLD
- Learning Disabilities Association of America, LDA
- International Dyslexia Association, IDA
- International Reading Association, IRA
- National Association of School Psychologists, NASP
- National Center for Learning Disabilities, NCLD

The process these organizations employed to develop their consensus statements unfolded through three steps: 1) initial planning and response to "white papers," 2) two-day Roundtable meeting, and 3) developing draft consensus statements.

Initial Planning and Response to "White Papers"

During an organizing meeting that was held in October 2001, the organizations comprising the NJCLD reviewed the process design, established a timeline for the work, defined the scope of work, and selected five working categories that became the focus of the organizations' responses. The five areas include the following: Nature of Learning Disabilities, Identification Process, Eligibility Criteria, Intervention, and Professional Development.

Following this meeting, each participating group reviewed the "white papers" developed on these topics by leading researchers, and produced a written response considered to be representative of their organization's core constituency. A template was developed and used by the organizations to provide consistency in the structure across the papers.

Two-day Meeting

Information from the response papers was converged into a set of charts used to facilitate discussions during a Roundtable meeting held February 4-5, 2002. Each issue was discussed at length and areas of consensus and policy implications were discussed for each of the working categories. Additionally, a working subgroup was formed to study a problem-solving approach related to identification, eligibility criteria, and interventions. They were further charged with developing a problem-solving approach for the group to consider.

Draft Statements

Following the two-day Roundtable meeting, a set of SLD consensus statements was developed by drawing from the following sources:

- Wall notes from the group discussion;
- Specific language from a set of "research group" statements identified by the Roundtable participants during the two-day meeting;
- Specific language from organizational papers identified by Roundtable participants during the two-day meeting;
- Statements from the NJCLD Professional Development for Teachers brochure; and
- The matrix-based statements drawn from the organizational papers, as revised by the group during the two-day meeting.

The Roundtable organizations were asked to respond to these consensus statements by revising or deleting them, adding new ones, and as much as possible, rank ordering them. The organizations edited the statements, and revised statements were sent back to the organizations for another review. Each organization responded with feedback.

This report culminates from the process described above. The body of this report lists the consensus statements with narrative comment seeking to capture the common and diverse set of voices coming together to form these statements.

Final Meeting

A clarification meeting occurred in June 2002 to finalize the consensus statements. Following this meeting a second work group met to analyze and discuss the problem-solving approach for identifying and supporting determination of eligibility. A subgroup report describing this approach, with input from the other Roundtable participants, is included in this document as Exhibit A.

STATEMENTS OF CONSENSUS

Participants in the Learning Disabilities Roundtable engaged in a period of reflection, sharing, and feedback to develop common understanding of the major issues affecting the identification of individuals with SLD, and to establish statements of consensus on what they believe and value. They began their work recognizing that the passage of PL-94-142 in 1975 opened a world of opportunity for individuals with SLD. In the following years reauthorization of IDEA enabled the educational community to deepen its commitment to all individuals with special learning needs by expanding the range of service options to individuals at early stages of development, increasing opportunities for technical support and staff development, and conducting research on effective practices. Individual students throughout the special education continuum have realized enormous benefits from this law. Still, there are improvements that can be made, in both the identification of individuals with SLD, and the determination of eligibility for special education and related services.

Participants expressed concern about inappropriate identification of individuals with SLD, emerging as a problem over the past three decades. They cited issues in the field where repeated concerns have been expressed regarding the manner in which individuals are identified as SLD, the manner in which educational services are

provided once eligibility has been established, and the types of services and interventions that are available to educators and support personnel. The field is concerned about inappropriate referrals to special education resulting from a process that needs to become more accurate, timely, and efficient. Further, Roundtable participants believe classroom teachers are left too often without useful support, even when the referral and identification process is completed in a timely and efficient manner.

Roundtable participants perceive the upcoming reauthorization process as an opportunity to rethink the current models used for identification, determination of eligibility, and service delivery, and to study and consider promising new models that will address more appropriately the needs of all students, particularly those with SLD. They pursued this endeavor through analysis and discussion of issues falling into five categories: 1) the nature of specific learning disabilities, 2) identification of individuals with specific learning disabilities, 3) eligibility for services, 4) interventions, and 5) professional development.

At the heart of their beliefs and recommendations, the Roundtable participants support a comprehensive and coherent system where each of these five categories is aligned along common principles. Significant attention was given to the need for a comprehensive evaluation model that will improve school capacity to identify individuals with SLD and make informed decisions regarding eligibility. Problem-solving approaches were identified as promising practices to consider. Participants believe resources should be allocated to provide opportunities to further study these models and provide additional data, including indicators of outcomes for students with SLD. At the core of a high-quality education is effective delivery of appropriate research-based interventions by teachers and other professionals, and on-going monitoring and assessment coordinated by interdisciplinary teams. Still, participants expressed concern that positive results and improvement will not occur unless teachers and other professionals in the system have the knowledge, skills, and administrative support to implement these new measures within a collaborative system that brings regular and special educators, related services personnel, and administrators together.

For purposes of this process, consensus is defined as statements the organizations could stand by and support. Statements of consensus organized by the five categories are presented below, followed by a brief discussion of each statement.

Nature of Specific Learning Disabilities

Roundtable participants agreed on the following core concepts as basic elements of the nature of SLD: Specific Learning Disabilities are neurologically-based, intrinsic to the individual, persist across an individual's lifespan at varying levels of intensity, and are not due primarily to other disabling conditions.

Consensus statements related to these issues are presented and briefly described below.

- *The concept of Specific Learning Disabilities (SLD) is valid, supported by strong converging evidence.*

Participants draw on converging evidence to support SLD as a distinct disability. There is evidence for heterogeneity of SLD.

There was little support for changing the current definition of SLD, but organizations agreed on the need for changes in current regulations regarding identification and eligibility.

- *Specific learning disabilities are neurologically-based and intrinsic to the individual.*

Participants support the concept that neurological deficits intrinsic to the individual are the basis for SLD. Such disorders result in performance deficits in spite of quality instruction and predict anomalies in the development of adaptive functions. In discussing these relationships several Roundtable papers made reference to "marker variables" and "core cognitive deficits." The identification of a core cognitive deficit, or a disorder in one or more psychological processes, that is predictive of an imperfect ability to learn is a marker for a specific learning disability. Participants suggest this results in the "imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations," as referred to in IDEA. Some participants noted this is an incomplete list of behaviors and should include the concepts of social and emotional development and oral expression.

- *Individuals with specific learning disabilities show intra-individual differences in skills and abilities.*

The concept of "unexpected underachievement" was also considered. Participants believe SLD is characterized by intra-individual variability in cognitive processing, academic achievement, and life activities. This variability results in unexpected areas of underachievement.

- *Specific learning disabilities persist across the life span, though manifestations and intensity may vary as a function of developmental stage and environmental demands.*

Because the disorder resulting in SLD is intrinsic to the individual and has a neurological basis, it does not disappear over time. While Roundtable participants believe it is important to recognize the life-long nature of the disorder, they also acknowledge that manifestations and intensity of the disability may vary for individuals during

different stages of development.

- *Specific learning disabilities may occur in combination with other disabling conditions, but they are not due to other conditions, such as mental retardation, behavioral disturbance, lack of opportunities to learn, primary sensory deficits, or multilingualism.*

A number of participants believe implementation of the current definition and regulations regarding identification of SLD has resulted in a heterogeneous population, often overlapping with other conditions. This has led to the erroneous inclusion of those with other learning and behavioral problems into the learning disability category and excluded others with SLD. Participants support the concept that SLD may occur in combination with other disabilities, but it is not due to these conditions.

- *Specific learning disabilities are evident across ethnic, cultural, language, and economic groups.*

Roundtable participants draw on research to support the concept that students with SLD can differ in terms of ethnic, cultural, language, and economic experiences. Specific learning disabilities occur within each of these groups.

Identification

Improving the process and methods used to identify individuals with SLD was a central issue addressed by the Roundtable. Participants expressed concern about the current process that uses ability-achievement discrepancy formulas as the primary criteria for identifying individuals with learning disabilities. They expressed concern that discrepancy formulas are unreliable and are not a valid marker for SLD. Participants responded by supporting the need for conducting a comprehensive evaluation that draws from multiple sources, including informed clinical judgment, and by suggesting further study and development of an approach schools can use in the future. A problem-solving approach was discussed as a promising process for the field to consider and study in a variety of settings. Finally, participants stressed the need for regular educators to assume a greater role in the identification process through a collaborative relationship with special educators and related service personnel.

Consensus statements related to these issues are presented and briefly described below.

- *Identification should include a student-centered, comprehensive evaluation and problem-solving approach that ensures students who have a specific learning disability are efficiently identified.*

Participants support existing IDEA requirements for a comprehensive evaluation that will use multiple measures, methods, sources of information, and clinical judgment to identify individual students with SLD. Important sources cited by the Roundtable participants include, but are not limited to, interviews with teachers and family members, standardized tests, teacher logs, student products, student records, observations, and continuous progress monitoring of performance. This statement is shaped by the guiding principle that no one particular measure or source is capable of providing sufficient information for accurately and reliably identifying individuals with SLD. A comprehensive evaluation will provide an accurate assessment of student strengths and weaknesses and should assist in identifying needed services and interventions.

Participants also stress the need for interdisciplinary teams to collect, review, and interpret data from these sources using a valid problem-solving approach. Such an approach must be capable of distinguishing between students who have specific learning disabilities and students with mental retardation and other disabilities, as well as those with no disabilities who may experience learning problems due to lack of adequate instruction and other factors.

Participants believe a comprehensive evaluation approach should be designed and validated to guide the identification of students with learning disabilities. Participants expressed frustration with the current emphasis on ability-achievement discrepancy formulas, stating that as practiced in schools they have not proven to be a valid approach to identifying individuals with SLD. In addition, they express concern that the current process provides limited information regarding needed instructional interventions. These participants point to emerging evidence suggesting there may be promising new approaches to strengthen this process.

One example currently being implemented and studied is a problem-solving approach, which has implications for both identification and eligibility decisions. A Roundtable sub-group met to study, discuss and analyze this approach. Their report, *Achieving Better Outcomes - Maintaining Rights: An Approach to Identifying and Serving Students with Specific Learning Disabilities*, follows the concluding section of this document as Exhibit A. This Exhibit reflects input from the various organizations participating in the Roundtable, recognizing the benefits and challenges to such an approach.

- *Regular education must assume active responsibility for delivery of high quality instruction, research-based interventions, and prompt identification of individuals at risk while collaborating with special education and related services personnel*

The vast majority of individuals with SLD will begin their educational experience in a regular education classroom. These teachers are responsible for all students in their classrooms, including those experiencing

difficulty. This involves providing high quality instruction for all students, but it also focuses critical attention on the need for regular education teachers to promptly identify individuals at risk, and the key role they play in providing high quality, scientifically-based interventions as mandated in the No Child Left Behind Act.

The Roundtable participants acknowledge that special educators and related service providers have a special role in working with individuals with SLD who require specialized instruction designed to meet their unique needs. They also believe the capacity of the identification process and delivery of high quality interventions is significantly strengthened as regular and special educators bring their unique knowledge and skills together in collaborative relationships. Participants noted that building these relationships involves co-learning and co-sharing and can result in a common effort to help all students.

Eligibility

Once a child has been identified as having a specific learning disability, decisions need to be made regarding eligibility and appropriate interventions and services. Roundtable participants believe ability-achievement discrepancy formulas should not be used for determining eligibility, and support using multiple sources of information to make strategic decisions on interventions and services needed for each individual. Participants believe an interdisciplinary team should make these decisions, and several participants strongly believe parents must be an integral part of the decision making process. They further stressed the need for these teams to make eligibility decisions in a timely manner to ensure student needs are addressed. Finally, participants support the concept that individual students may need varying levels and types of services.

Consensus statements related to these issues are presented and briefly described below.

- *The ability-achievement discrepancy formula should not be used for determining eligibility.*

Roundtable participants agree there is no evidence that ability-achievement discrepancy formulas can be applied in a consistent and educationally meaningful (i.e., reliable and valid) manner. They believe SLD eligibility should not be operationalized using ability-achievement discrepancy formulas. They also believe alternative approaches to eligibility determination must be developed, validated, and implemented as soon as possible.

- *Decisions regarding eligibility for special education services must draw from information collected from a comprehensive individual evaluation using multiple methods and sources of relevant information.*

This theme is consistent with the guiding principle of conducting a comprehensive evaluation to identify individuals with SLD. Roundtable participants believe that once identification has occurred, decisions regarding eligibility and needed services should draw on several sources of information. Participants believe this will strengthen the ability of the system to make optimal decisions to meet the unique needs of each individual.

- *Decisions on eligibility must be made through an interdisciplinary team, using informed clinical judgments, directed by relevant data, and based on student needs and strengths.*

Participants believe capacity for making optimal eligibility decisions can be enhanced through an interdisciplinary team where members communicate freely across disciplines and have substantial knowledge regarding testing and test results. In this manner, decisions are based on a team assessment of the sources of information that represents an integrated synthesis of different perspectives, rather than drawing on a single voice or loose collection of different, disconnected voices. Participants believe the team should specifically include at least one person qualified to conduct individual diagnostic examinations of children, such as a school psychologist, speech-language pathologist, or remedial reading teacher. Participants stressed the need to include an education professional with identified competencies in SLD. It was pointed out that 80 percent of specific learning disabilities are language-based disorders, and participants believe teams should include personnel with appropriate expertise. Parent participation was also emphasized as critical.

- *Decisions on eligibility must be made in a timely manner.*

Participants believe decisions regarding student eligibility must be made in a timely manner. Roundtable participants were sensitive to the timeliness of these decision processes to ensure that student needs for services are addressed.

- *Based on an individualized evaluation and continuous progress monitoring, a student who has been identified as having a specific learning disability may need different levels of special education and related services under IDEA at various times during the school experience.*

Roundtable participants believe IDEA must continue to provide for the civil rights that enable students with SLD to receive special education and related services. Within this principle is the concept that individuals identified with SLD may need different types and levels of services to meet their needs. Additionally, student needs and services may change at different points in the individual's school experience. According to participants, "different levels" refers to the need to provide a continuum of services and strategies, and with varying intensity of supports. Such decisions should be student-centered by focusing on meeting the needs of each individual.

Intervention

Delivery of effective interventions plays a central role in the concerns discussed by the Roundtable participants. The prelude to any intervention process must be effective instruction in the regular education classroom. Running records, checklists, and other data gathering activities can help teachers and others frame concerns about a student's progress. Participants noted that successful intervention depends on delivery of high quality, scientifically-based interventions by regular and special educators and related service providers, as provided for in the *No Child Left Behind Act*. For this to occur, schools and service providers must have access to information about these interventions. Participants also believe interventions are most effective when they are implemented consistently and with fidelity, with a sufficient level of intensity, and are relevant to student needs. Participants support particular types of interventions for students with SLD, such as explicit instruction, and support a continuum of intervention options. Finally, Roundtable participants envision regular and special educators and related service providers learning and working together as part of a coherent system that is accountable for educational outcomes for students with SLD, a theme that cuts across all areas. Given these considerations, some participants stressed the need for regular education law and regulations to address the key measures regarding regular education activities discussed in this report.

Consensus statements related to these issues are presented and briefly described below.

- *The field should continue to advocate for the use of scientifically-based practices. However in areas where an adequate research base does not exist, data should be gathered on the success of promising practices.*

The NCLB law mandates use of "scientifically-based" practices and interventions to help all individuals learn. Use of such practices is a cornerstone of the problem-solving approach, which builds on the assumption that teachers and other service providers are delivering high quality interventions. Consistent with these issues, Roundtable participants believe it is essential to advocate for the use of scientifically-based practices that have been validated through rigorous, well-designed, objective, and systematic studies, and have been assessed with positive results through some type of peer review. Additionally, in areas where an adequate research base does not exist, participants support the use of promising practices that have been identified by small case studies or other non-experimental designs with positive results. Opportunities should be made available for conducting further research using rigorous methodology to validate the effectiveness of such practices.

- *Schools and educators must have access to information about scientifically-based practices and promising practices that have been validated in the settings where they are to be implemented.*

Schools and educators must be made aware of scientifically-based practices and interventions that work in settings similar to their own. Such practices cannot be implemented unless schools and teachers are sufficiently aware of them. This also requires that teachers and other education personnel have the skills, knowledge, and attitudes to implement the interventions for all individuals. To accomplish this, schools must have a context that supports use of these interventions as a priority through high expectations, relevant professional development, and encouragement from local leaders and colleagues alike. This comes about through a culture of instruction and support involving parents, educators, related service personnel, and administrators who all have a common focus on improving student learning.

- *Students with specific learning disabilities require intensive, iterative (recursive), explicit scientifically-based instruction that is monitored on an on-going basis to achieve academic success.*

Roundtable participants support use of scientifically-based practices for students with SLD such as intense remediation, and instruction that is direct, explicit, cumulative, systematic, and strategic. For example, some students with SLD may require one-on-one tutoring or tutoring in small learning groups with other students. Some participants specifically promote intervention using structured language emphasis for all individuals with language-based learning disabilities. While types of instruction and support may differ depending on individual student needs, on-going monitoring is needed at all levels to achieve academic success.

- *Students with specific learning disabilities require a continuum of intervention options through regular and special education across all grades and ages.*

Participants support a continuum of intervention options through regular and special education. Depending on the student's abilities and needs, this can occur through accommodations, modifications, intense instruction, and remediation. Accommodations allow a student to complete the same assignment or test as other students, but with a change in the timing, formatting, setting, scheduling, response, and/or presentation. The accommodation does not alter what the test or assignment measures, but serves as a support directly related to the student's disability. Modification is an adjustment to an assignment or a test that alters what the assignment or test is designed to measure. This occurs when the reading material assigned to a student is altered or made easier than the material assigned to other students in a regular education class.

Accommodations and modifications are primarily concerned with helping students access the general education curriculum. In contrast, remediation and the development of compensatory strategies are a priority in special education. For example, intense, structured language interventions are employed to remediate severe reading disabilities. Participants believe that for students with severe learning disabilities who need remediation or compensatory strategies, accommodations and modifications are never a substitute for these services.

- *Interventions must be timely and matched to the specific learning and behavioral needs of the student.*

Interventions implemented by schools and teachers must be timely and address the needs of their students. Students have unique learning needs and it is imperative that interventions are relevant and responsive to these needs. If responsive and relevant interventions are not provided in a timely fashion, the student's problems are likely to intensify and become more complex.

- *An intervention is most effective when it is implemented consistently, with fidelity to its design, and at a sufficient level of intensity and duration.*

Roundtable participants believe interventions are most effective in helping individual students when they are implemented consistently and at the level of intensity and fidelity appropriate to the intervention design. Interventions and practices will often be adapted to fit local circumstances and needs, and this can increase ownership and responsiveness, but the integrity of the core defining elements of an intervention must be maintained while it is put into practice.

- *Regular and special education must be coordinated as part of a coherent system which is held accountable for the educational outcomes of students with specific learning disabilities.*

Roundtable participants recognize and value the need for regular and special educators and related service providers to work collaboratively as part of a coherent system in planning and delivering interventions. Coherence occurs when there is alignment of principles defining all aspects of the system, including instructional goals, delivery of instruction and services, assessments, pre-service training, and professional development. All levers are pulling together in the same direction, and reinforcing each other. Participants envision a future where regular and special education and related service providers know and respect each other, and depend on each other in collaborative relationships to best serve their students within a well-aligned system. In this system, regular and special educators and related service personnel share basic assumptions and espouse common beliefs about teaching and learning. In turn, these shared assumptions and beliefs are manifested in activities that can be seen, such as a shared professional community that includes planning, team teaching and projects, and professional development. With regular and special educators and related service providers bringing distinct knowledge and skills into this relationship, the strengths of each player are appreciated and used to make the whole school or system greater than the sum of its parts.

Participants believe that holding regular and special education entities accountable for the educational outcomes of all students with SLD will encourage coherence, collaboration, and joint responsibility for all individual students with SLD. Participants believe the goals of the regular education accountability system must reflect these priorities.

Professional Development

Roundtable participants recognize that all the best intentions and new designs for improving the identification process and delivery of scientifically-based interventions will fall short if the professional educators, administrators, and related and support personnel responsible for implementing these designs do not have the knowledge, skill, or will to implement and sustain them. The Roundtable participants recommend changes in professional development that will reinforce the knowledge, skills, and attitudes needed to implement critical structures and processes, such as comprehensive evaluation, interdisciplinary team problem-solving, quality delivery of scientifically-based interventions, and collaboration among regular and special educators and related service personnel. To achieve this, participants believe professional development practices must meet recognized standards for professional development articulated by the standards for beginning and experienced teachers and related service providers through relevant professional groups. Standards relate to important issues of content, process, and context. Additionally, participants raised concerns about the need for greater coherence and alignment in the systems that provide pre and in service training for professional educators based on effective principles for teaching and learning.

Consensus statements related to these issues are presented and briefly described below.

- *The content of professional development must address the knowledge, skills, and attitudes needed to increase staff and school capacity to implement effective interventions for diverse learners.*

Roundtable participants believe the *content* of professional development must be driven by the knowledge and skills needed to implement high quality instruction, and a comprehensive, coherent system that provides for accurate identification of individuals with SLD, effective eligibility decisions, and delivery of high quality

instruction. Participants believe information from databases on performance aligned with these needs can appropriately focus the content of professional development on expected competencies and areas that need to be addressed. They recommend collection and analysis of data on student learning in a timely fashion and in a manner that maximizes use by school administrators, teachers, and related service providers.

- *Professional development must address the organizational and cultural context needed to ensure on-going professional learning and development for all service providers.*

Participants support the concept that professional development must address contextual issues needed to ensure that professional learning occurs and is sustained. There is a need for an administrative commitment to developing a positive school climate that results in increased collaboration among regular and special educators, related service providers, administrators, staff, family, and community; and the allocation of adequate resources necessary to ensure continuous professional growth.

- *Professional development must be structured to fit the way adults acquire knowledge, skills, and attitudes.*

Participants believe the processes used in professional development must be structured in a way that respects the adult learner. All educators need to be directly taught the knowledge and skills needed to implement the activities called for in this report, including high quality instruction in regular and special education. They also need on-going opportunities for practice, critical feedback and sharing, observation of effective practice, and learning through application under the guidance of a mentor and supportive professional community. Educators need to engage in sustained study of what they teach, how they teach it, and student results. Participants believe professional development is not a single event, but a continuum of integrated, on-going learning opportunities.

- *An on-going, coherent, integrated system of pre-service and in-service education must be provided.*

Participants expressed concern about the lack of alignment between pre- and in- service education for professional educators, and the degree to which these structures have not been responsive to the critical needs of students, teachers, and other related service providers. Roundtable participants support the concept of an integrated and coherent system of professional learning that consistently reinforces and enhances the skills, knowledge, and attitudes for regular and special educators, administrators, as well as related and services personnel. Roundtable participants specifically noted that such a system should include school-based professional development combined with on-site induction and mentoring.

- *Alignment is needed across the agencies and structures that shape professional development and communicate what is valued and expected in schools.*

Consistent with the last recommendation, Roundtable participants recommend alignment and coherence across the entire system of agencies and processes responsible for communicating what is valued for professional learning. This includes, among others, accreditation agencies, textbook publishers, certification authorities, school districts, teacher unions, professional organizations, institutions of higher education, standards and accountability systems, and state and Federal law. Each of these structures and processes sends powerful signals on what is valued for teaching and learning, and the knowledge, skills and processes needed to accomplish this. As part of a coherent system, participants believe articulation of consistent goals and priorities across all relevant agencies and entities is very important.

CONCLUSION

The consensus statements summarized in this report reflect the critical issues and major priorities of the Learning Disabilities Roundtable. This report will be used as a tool for working through the many issues and activities involved in the reauthorization of IDEA and other policy initiatives of interest to OSEP decision-makers. It should also assist the OSEP Division of Research to Practice (RTP) in their mission to bring scientifically-based practices and high quality instruction to individuals with SLD across the nation. Issues such as problem-solving models, interdisciplinary problem-solving, collaborative relationships, policy coherence, and effective professional development represent exciting opportunities for rethinking educational processes affecting all individual students, including individuals with SLD. The Learning Disabilities Roundtable participants look forward to an exciting future where new, high quality practices and approaches are responsive to the most critical needs of individuals with SLD disabilities and their families, are used by practitioners, and result in improved student learning and outcomes.

EXHIBIT A

Achieving Better Outcomes - Maintaining Rights: An Approach to Identifying and Serving Students with Specific Learning Disabilities

Background

Following the August 2002 Learning Disabilities Summit: Building a Foundation for the Future, The Office of Special Education Programs, U.S. Department of Education, provided funding to the National Center for Learning Disabilities to conduct an LD Roundtable gathering of groups that comprise the National Joint Committee on Learning Disabilities. The goal of the Finding Common Ground Roundtable was for key organizations in the learning disabilities community to find a common voice on issues of greatest importance, and to articulate recommendations for policy and systemic changes that reflect the latest science in teaching and learning, are responsive to the realities of personnel preparation, and can bridge the gap between research and practice in schools and individual classrooms across the country. This background paper was prepared for Roundtable members for information purposes and to generate discussion.

INTRODUCTION

As the 107th Congress begins its deliberations about the renewal and revision of the Individuals with Disabilities Education Act (IDEA), the special education community is faced with a unique set of challenges and opportunities. The unprecedented growth of the specific learning disabilities (SLD) category, the manner in which children are identified as being eligible for classification under the category of SLD, the types of educational services that are provided once eligibility has been established, and the expertise needed by educators and support personnel to ensure student learning will all be subject to scrutiny during this period of public debate.

Through the Roundtable process, consensus was achieved regarding the lack of scientific evidence to support an IQ-achievement discrepancy formula as the basis for identification, classification and providing special education and related services to students with specific learning disabilities. There was also agreement that, the concept of discrepancy or intra-individual differences remains a hallmark of SLD, and that new approaches are needed to capture relevant instructional data and afford students targeted, meaningful and early instruction to circumvent and prevent learning failure. A multi-tiered, collaborative problem-solving approach, which incorporates early intervention, trial teaching, progress monitoring, and a inter-disciplinary evaluation, was named as a promising alternative.

Collaboration among regular and special education teachers and related service providers was highlighted as an essential aspect of the problem-solving approach recommended for consideration. Features of this approach include:

- All students receive high quality general education using on-going screening, progress monitoring, and assessments to design differentiated instruction and inform decision-making. This includes identifying those children at greatest risk for learning difficulties (e.g., children with spoken and written language impairments).
- Targeted services are provided to specific students who fail to make adequate progress within general education. This would involve collaborative efforts of regular and special educators and related services personnel, especially those already providing services to these children (e.g., speech-language pathologists).
- Special individualized services are provided to students with intensive needs who are not adequately responding to high quality interventions in the first two phases of this approach.
- Students determined to be at risk for academic failure are afforded scientifically-based general education interventions for a fixed period of time. During the course of this intervention, their progress is evaluated on a frequent basis using a variety of curriculum-based measures (CBM). Students who do not display meaningful gains and who appear to be unresponsive to intervention during this period, as measured by level of performance and rate of learning, are candidates for referral for special education evaluation.

Participants in the Roundtable process cited evidence that problem-solving approaches currently in use show promise as ways to improve high quality instruction for all students. There was, however, general consensus for the need to expand and replicate these pilots, and to explore a variety of alternative identification approaches, as well as to propose ways to accomplish large-scale implementation. Participants also indicated the need for studies to determine whether this model will result in fewer students inappropriately identified as SLD, fewer students of color inappropriately identified as SLD, and timely identification of students who have learning disabilities.

The Issue

Despite decades of research, there remains considerable controversy about the nature of learning disabilities. The current model for identifying, determining eligibility, and providing services to students with SLD has served as a good faith attempt to functionally define and operationalize programs and services for this group of students who, by federal definition, demonstrate unexpected underachievement in school. It has also resulted in an unshaken commitment to guarantee and protect the rights of all students to a free and appropriate public education. It has not, however, fully realized the promise to reach and teach students with SLD in ways that anticipate and prevent student failure, promote sustained student progress once intervention services are provided, and make efficient use of fiscal and personnel resources.

The upcoming reauthorization process is an opportunity to rethink the current "wait-to-fail" models of identification, eligibility and service delivery, and to recommend alternative approaches, or enhancements to current models, that address the needs of all students who are failing to thrive academically and socially, including those with learning disabilities.

The Challenge

While current IDEA statute allows states flexibility in how to implement services and programs for students with SLD, it provides limited incentives to improve upon current models of identification, determining eligibility and service delivery, and no guidance about how more student outcome-driven models might be structured. Core issues that need to be addressed by regular and special education in order to better serve students include:

- over referral (and often inappropriate referral) for special education evaluation
- limited emphasis on identification and early intervention for students at risk for learning failure
- delay in the onset of specialized instruction and/or intervention services
- unintentional alienation of regular and special education personnel
- inefficient use of support and pupil services personnel and related service providers

Compounding these challenges is the troubling reality that all too often, educators are ill-prepared to address the needs of students with SLD. Through a combination of pre-service and in-service training, certification, and portfolios of ongoing professional development, teachers and administrators must embrace the need for change and work with diligence and optimism to:

- ensure that teachers and other school personnel are prepared to deliver high quality instruction to address the needs of students with SLD, and that they have the kinds of assistance, support and resources they need to address the learning and emotional needs of all students
- provide systematic and systemic administrative support for interdisciplinary collaboration at the school building and district level, and
- facilitate educators' access to research-based strategies (and strategies for which there is limited but convincing clinical evidence) that are essential for building and sustaining learning environments that result in improved student learning across the grades

A Proposed Solution

The preamble to the 1997 amendments of IDEA encourages the use of targeted intervention as part of a comprehensive problem-solving process to assure that students with disabilities are provided special education services. Such an approach could simplify the path from concern to action, calling upon parents and school personnel to act quickly and with purpose and precision in order to address students' learning difficulties.

One solution being proposed is not based on a single model, but rather reflects a service delivery approach that guides educators to anticipate, recognize, and document students' learning needs and to provide timely and well-targeted, effective instruction. It is designed to encourage flexibility and collaboration among regular and special education and related services personnel, and reduce the lengthy cycles of school failure many students experience before getting the help they need. This approach is based on a multi-tiered process that improves upon current models of special education service delivery, emphasizing effective instruction and response to treatment rather than test scores and discrepancy formulae as the gateway to better learning outcomes.

Incorporated into this approach are the protections and procedural safeguards provided under IDEA, leaving open the option for parents and educators to initiate referral for special education evaluation in instances where, for example, intervention services are not provided in a timely manner, school personnel lack sufficient knowledge and resources to provide research-based intervention, or insufficient information is available to determine how best to address a student's particular instructional needs. It is particularly sensitive to meeting the needs of young school-age children, and should result in the added benefit of careful documentation and shared responsibility for student learning, both in general and special education settings. It is expected that these benefits will extend across the grades and throughout a student's K-12 academic career. This flexible, collaborative problem-solving approach seeks to minimize the risk of students being overlooked or caught in a system where delay in classification allows students to continue to fail to learn. In addition, it could ensure that students identified for

special education and related services are those truly in need of specialized instruction, and not those whose instructional needs could be adequately addressed by re-focused regular education efforts or remedial and supplementary educational programs.

An intervention-oriented approach is compatible with features of the current IQ-achievement discrepancy model, and seeks to improve upon it in ways that are closely aligned with good teaching practice. Since it is based upon the student's response to intervention, the approach continues to recognize unexpected underachievement at the core of the eligibility process. Such an approach is also consistent with existing exclusionary factors, and allows for clinical judgement to be part of the identification process.

The process of determining student eligibility for special education services can be enhanced by the use of effective response-to-intervention procedures. IQ test scores alone, popularly reported as part of the IQ-achievement discrepancy formula used by most school systems, are of little value to parents and teachers, because they lack the treatment validity necessary to inform the teaching process. While IQ tests do not measure or predict a student's response to instruction, measures of neuropsychological functioning and information processing could be included in evaluation protocols in ways that document the areas of strength and vulnerability needed to make informed decisions about eligibility for services. An essential characteristic of SLD is failure to achieve at a level of expected performance based upon the student's other abilities. IQ testing would still be used at the discretion of interdisciplinary evaluation teams, and may be particularly useful when questions of cognitive level arise. In fact, when there is a question about the possibility of mental retardation being the primary reason for lack of response to intervention, such screening and assessment devices would need to be used to rule out this condition.

Proponents of this approach suggest the following positive aspects:

- Decisions about students' specific instructional needs are based primarily on a student's lack of responsiveness to effective instruction. This means that a first step toward identifying students who might need special education services is to determine whether the instructional environment is adequately individualized, structured and supportive to facilitate learning for all capable students.
- Targeted interventions are implemented with fidelity, and data are collected on student performance. The effects of interventions are monitored and decisions about types (and intensity) of ongoing instruction and support are made for individual students at the classroom level.
- Student progress is carefully documented within clear timelines, and response to instruction provides additional validation of students' specific instructional needs, as well as informs decisions about how each student could best be served by special and regular education and related services personnel.
- Instructional interventions are formulated and implemented to ensure that students have access to general education curricula, and to provide support needed for mastery of literacy, learning strategies and social skills critical for school success.
- Students in need of special education services are provided relevant instruction and support, with ongoing collaboration among regular and special education and related services personnel.
- Students exit special education services as soon as objective data indicate that they have made sufficient progress to achieve independently in the general education classroom without special education services. The decision to end special education services does not mean that the student no longer has a disability or that a decision to re-enter the system could not be made at a later date. The option to retain, exit or re-enter students would be made on an individual basis and be reflected in an IEP or transitional IEP process.

Potential Administrative Benefits of this Approach

Models for early identification and intervention prior to special education referral have been in operation for over 20 years. Terms used to describe this approach have included: Teacher Assistance Team Model, Pre-Referral Intervention Model, Mainstreaming Assistance Team Model, School-Based Consultation Team Model, and Problem-Solving Model.¹ Successful demonstration projects have been implemented at individual school, school district, inter-district, and statewide levels in various parts of the country. Anecdotal and program evaluation data, while limited and largely unpublished, have demonstrated the benefits of empirically-proven instructional practices in general education classrooms², curriculum-based assessment linked to instruction³, preventative and remedial supports and consultation services in general education⁴, data-based problem solving implemented by intervention assistance teams and other collaborative mechanisms⁵, and multi-tiered systems for using response to intervention to

¹ Chalfant & Pysh, 1989; Chalfant, Pysh & Moultrie, 1979; Knackendoffel, Robinson, Deshler & Schumacker, 1992; Elksnin & Elksnin, 1989; Fuchs & Fuchs, 1988; House, Zimmer & McInerney, 1991; Rosenfeld, 1991.

² Beck, 1993; King & Torgesen, 2002

³ Deno, Fuchs, Marston & Shin, 2001; Kaminski & Good, 1998; Knoff & Batsche, 1995

⁴ Graden, Casy & Bonstrom, 1985; Illinois State Board of Education, 1997; Lennon & Slesinski, 1999; Slavin & Madden, 1999; Smith, Ross & Casey, 1994

⁵ Carroll & Carroll, 2000; Chalfant, Pysh & Moultrie, 1979; Conway & Kovaleski, 1998; Graden, 1988; Hartman & Fay, 1996; Jenkins, 2001; Papandrea, Walkley, DeLorme & McNamara, 2001; Potter, 2002

determine eligibility⁶. Data from these projects and reform initiatives have indicated such benefits as:

- increased accountability for student learning in general and special education
- decreased numbers of students placed in high incidence special education categories
- potential for reduction in disproportionate referrals of minority students for special education evaluation
- reduction in the number of evaluations conducted that do not result in either special education classification or improved learning outcomes for students who are experiencing school failure
- improved problem solving efforts by regular education personnel
- positive reactions of participants and stakeholders

These efforts have also provided data to suggest that intervention-based models can result in improved accountability and allocation of personnel resources as exemplified by:

- increased time for collaboration among regular and special education teachers, administrators and related service providers
- increased opportunities for related service providers (e.g. psychologists, speech-language pathologists) to engage in activities that relate directly to students' lack of success and that support efforts to provide targeted instruction and monitor ongoing progress

Personnel Requirements for Implementation

Questions remain about the conditions under which this service delivery approach can be successfully implemented, and efforts need to be made to identify the specific resources necessary to take such a model to scale. It is clear, however, that a number of conditions will need to be met and challenges overcome, particularly with regard to bolstering building-level leadership and providing adequate support, resources and expertise through expanded roles and responsibilities for all personnel involved in the educational process. Examples include:

Building principals will need to:

- develop and oversee school-based instructional support team efforts
- provide supportive school environment that encourages collaboration
- provide ongoing, high-quality professional development to all instructional and support personnel
- ensure adherence to timelines and cost controls
- provide caseloads and schedules that facilitate individualized instruction, documentation of response to instruction, and collaboration among regular and special educators, related services, and support personnel

Regular education teachers will need to:

- gain access, training, and support in the use of research-based instructional interventions that address students' deficits in areas such as reading, math and written language, throughout the grades
- become proficient in the administration and scoring of progress-monitoring procedures such as pre- and post- tests on appropriate assessments, curriculum-based assessment measures (CBM), and other means for documenting rates of learning and overall progress
- design and implement classroom environments that promote optimal use of instructional time and responsive instructional techniques, collaboration among professionals, and ongoing data collection to determine student's response to treatment

Special educators and related service providers (including school psychologists and speech-language pathologists) will need to:

- access training and gain proficiency needed to assist regular educators with activities such as selecting appropriate materials, conducting assessments, and evaluating progress
- provide consultation regarding behavioral and instructional problems, with decreased demand for traditional routine and repeated comprehensive assessments
- provide expertise and guidance to parents, educators and administrative faculty as members of the school-based support team

Parents will need to:

- be apprised of information regarding specific expectations concerning academic progress and research-based interventions (as well as strategies that have limited convincing clinical evidence) that are most likely to contribute to their child's educational success
- continue to refer their children for screening or evaluation when learning difficulties are suspected or observed
- continue to function as essential members of the school-based team
- give their signed permission prior to formal evaluation for special education assessment or services
- continue to have participatory and approval roles in developing and reviewing IEPs

Specific roles and responsibilities will need to be identified for other stakeholders as well, including university faculty and state and local education agencies.

⁶ Deno, Grimes, Reschly & Schrag, 2001; Harley & Prasse, 2002; Marston, in press; Reschly, Tilly & Grimes, 1999

Questions, Concerns and Resources Needed to Support this Approach

Successful projects have provided promising evidence that response-to-treatment (or intervention-oriented) approaches to identifying and serving students with specific learning disabilities are viable alternatives to the current system of serving children with SLD. For this approach to be embraced and operationalized by the education community on a large scale, a number of questions and concerns must be addressed, resources be made available, and activities put in place, including:

1. While data indicate that this approach results in fewer numbers of students being referred for special education evaluation, insufficient data are available regarding the effects of this approach upon student outcomes. Large scale evaluations need to be conducted to determine in what ways this approach improves system-wide change (i.e. prevalence rates), how these approaches effect student learning, and whether student gains are sustained over time.
2. Before moving toward widespread adoption of alternative approaches to identifying students as eligible for the specific learning disability classification, further study is needed to clearly describe students, professional competencies, settings, services, and interventions so the most effective features of the alternatives can be replicated and moved into large scale settings. Efforts should be made to identify required or optional components, their sequence and timelines for implementation, as well as to detail the staffing and the roles and responsibilities of different personnel. Evaluation is also needed to address whether this approach will result in more timely service delivery and will safeguard against it becoming another wait-to-fail model.
3. A multi-tiered approach to serving students is sufficiently flexible that it can be personalized to classrooms and school communities. However, the implication of a student's status and movement to and from different tiers is not well understood. Clarification is needed to explain and demonstrate how students qualify for and are provided services in each tier of a response-to-treatment approach.
4. There needs to be a well-coordinated and sustained effort to begin systematically implementing this approach in the early grades, and concurrently, to studying the applicability of this approach for students at later grade levels and in different types of school settings, in preparation for more wide spread implementation over the next few years. Information is also needed about specific criteria for classification and transition to and from different levels and types of programs and supports.
5. The infrastructure needed to deliver services to students using this approach will vary greatly, as will the effort and resources needed to implement the necessary staff training. Considerable thought and planning needs to be invested in understanding how such an approach can be brought to scale in different geographic locations and in communities with unique demographic, socioeconomic and cultural-linguistic characteristics and needs.
6. Further specificity is needed with regard to the eligibility criteria for inclusion in the SLD category, including external factors that might be the primary reason for underachievement.
7. Concerns have been expressed regarding the potential for exacerbating the already difficult process of identifying students who are both gifted and have specific learning disabilities using this approach. Further research is needed to understand how the unique challenges presented by this sub-set of students with special needs can be met via problem-solving models.
8. Teachers and parents continue to express concerns about students who are functioning at lower academic levels but who do not qualify for an SLD classification. Efforts must be made to both understand how the needs of these students will be addressed by this approach, and how assistance will be provided to classroom teachers so that the needs of these students can be met.
9. Concerns have been expressed that this approach risks diminishing specially-designed, individualized instruction for students with SLD. The scope and purpose of special education services needs to be explicitly defined and exemplified as part of any alternative approach for identification, eligibility and intervention.
10. Successful implementation of this approach means that classroom teachers will need to administer repeated measures of student progress and interpret progress monitoring data to identify students who are not performing commensurate with their typically-achieving peers. It also means that special educators and related service providers will need to engage in a range of targeted activities that assist regular educators to select and effectively implement instructional materials and strategies that result in improved student performance. Formal training and ongoing technical assistance and support will be necessary for classroom teachers and related service providers to perform these tasks with fidelity and to use performance data in ways that inform classroom instruction.
11. States would need to be given additional incentives to pilot or more fully implement such approaches, to document effectiveness for students with SLD, and to identify funding sources (such as IDEA and No Child Left Behind) and new paradigms that utilize federal, state and local dollars for large scale implementation with integrity.

12. Success of this approach is predicated upon effective instruction in general education classrooms and a commitment by regular educators to a tier delivery system of instruction and support. Regular and special education teachers and support personnel will need to be encouraged and supported in collaborative problem-solving efforts, ongoing progress monitoring, and in activities that provide targeted instruction for all students who experience learning failure.
13. Pre-service education and ongoing professional development programs need to have access to and readily promote the use of research-based effective practices, especially in the area of early reading instruction and behavior.
14. Concerns have been expressed that such an approach depends upon developing and maintaining a cadre of well-qualified teachers, administrators and support personnel. Decisions will need to be made about specific standards and competencies for teaching and support personnel who work with students with SLD. Sufficient funding and time will need to be allocated for ongoing professional development and collaborative opportunities among teachers and support personnel in all content areas and grades, as well as for administrators who shape service delivery systems and school communities as a whole.
15. Schools will need to clarify the types of services available to students through compensatory education and IDEA, as well as those accessed through Section 504 of the Rehabilitation Act. Avenues of information must be created so parents and educators can understand and access unique and sometimes overlapping systems of instruction and support.
16. Procedural safeguards and parent participation must continue to be seen as crucial to the successful implementation of an alternative approach. Parents must continue to be recognized as full partners with schools, especially as these approaches involve instructional and support personnel in different ways. Parents and professionals must continue to be bound by specific requirements that ensure mutual awareness of educational goals and outcomes, changes in settings or support services, and adjustments in instruction and interventions.
17. Further clarification is needed to understand how this approach will better differentiate between students across disability categories (i.e. specific learning disabilities, mental retardation, emotional disturbance, speech/language impaired, other health impaired) and improve decision making about appropriate instructional and behavioral needs and supports.

Moving Forward

The current IDEA reauthorization process has provided a unique opportunity for members of the advocacy, teaching, research and parent communities to come together and articulate specific thoughts about ways to improve outcomes for students with SLD. Lawmakers and policy officials are listening for a common voice that calls for action to be taken in several areas to more effectively address the needs of students with SLD through the IDEA. Adequate instruction and documentation of progress should be the cornerstone of effective education for students with SLD, and the practical application of this approach is worthy of careful attention as it holds great promise for overcoming some of the barriers to success faced by the general and educational communities during the past 25 years.

There is little doubt that IDEA reauthorization will take place, and that the provision of special education services will be protected under the law. What is less clear are the ways in which the benefits of our vastly improved knowledge about teaching and research-based instruction will be reflected in the law, regulations and practice. Our hope is that we can contribute to a reauthorization process in ways that:

- empower educational personnel to work as co-equals, tapping their different and complementary sets of skills for the benefit of students with SLD
- enhance the efficiency of general and special education systems of instruction and support
- ensure improved educational outcomes through more effective approaches to identification, eligibility and intervention, and through more effective professional development

In keeping with the first federal special education legislation in 1975, the tenets of this approach are not grounded solely in research. They also emanate from the ideals of the society in which policy change are advocated. Progress toward better education practice begins with acknowledgement that the current system of service delivery is not serving all students with SLD effectively, and that current models requiring reliance on a discrepancy between IQ and achievement can prevent students from receiving assistance in a timely and efficient manner. There also needs to be agreement, in concept, that better models must be created for serving the educational and behavioral needs of students with SLD. One such approach, based on a student's response to effective instruction, should be considered as it is highly regarded by researchers and policy officials as a promising alternative to current practice.

Recommending changes to a system that provides a lifeline of services and supports to millions of children nationwide demands extraordinary precision and care. The willingness to challenge the status quo in the face of this daunting reality demands not only cooperation and trust among stakeholders but also a commitment to using both clinical judgment and data in decision making about models for identification, eligibility, and intervention. It further demands that we fine tune and configure policy and practice so that our models for service delivery reflect our best knowledge about effective instruction and how to bring these models to scale.

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At-Risk

AT-RISK: DONE DIRT CHEAP

“IMMORTAL ROME WAS AT FIRST AN INSIGNIFICANT VILLAGE”

The starting point for improvement in serving students who are at-risk is more efficient and effective use of current resources and finding creative ways to redeploy existing resources including personnel for supports implementation. It is possible to adapt school programs according to simple yet comprehensive and systematic procedures to focus on individual needs of students. But, due to budget cuts, the light at the end of the tunnel has been turned off.

The At-Risk program perspective includes the philosophy that students need four basic elements from their school:

- ⊗ Relevant schoolwork
- ⊗ Nurturing, supportive environment
- ⊗ Opportunities for academic success
- ⊗ Help with personal problems

(Susan Talley, National Institute on the Education of At-Risk Students)

Comprehensive School Reform (CRS) is a nation wide initiative that focuses on reorganizing and revitalizing entire schools, rather than on implementing individual programs. The US Department of Education defines CSR models as including the following:

- * Strong literacy curriculum
- * Extra help for students
- * Focus on smallness (feeling of personal involvement)
- * Parental outreach and community building
- * Social skills development
- * Sustained staff development

With significant numbers of students performing below grade level in many subjects, an effective school reform model must incorporate opportunities for students who are behind to catch up to grade level. Creative scheduling, innovative use of technology, and offering a rigorous standards-based curriculum while providing opportunities for extra help will ensure that students succeed. These components can be offered through the existing school framework rather than “over building” independent programs.

The Master Plan for Students At Risk (USOE) in its original format was published in 1988. The USOE plan is to focus on the student rather than the process, allowing latitude for an individualized response to a particular child’s problem; a commitment not to allow even one student to “slip through the cracks”. This reflects a concern for a student’s education as well as a long-range goal of productive citizenship.

Recent research (*Search Institute, 2000*) has noted building blocks of healthy development that help young people grow up healthy, caring, and responsible. The list includes *Support, Empowerment, Boundaries and Expectations, Constructive Use of Time, Commitment to Learning, Positive Values, Social Competencies, and Positive Identity.* These are excellent guidelines to use in the development of at-risk programs.

The following are specific skills/ideals that a student can learn while working on academic and personal success:

- | | | | |
|----------------------------------|-----------|------------------------------------|-----------------------------|
| * Integrity | * Honesty | * Responsibility | * Restraint |
| * Planning and decision making | | * Interpersonal competence | * Personal power |
| * School engagement | | * Reading for pleasure | * Self-esteem (from within) |
| * Sense of purpose | | * Positive view of personal future | * Service to others |
| * Personal and school boundaries | | * Achievement motivation | |

An ongoing, school wide program of social skills development benefits all students. School programs that focus on improving or enhancing social skills help children adjust to the demands of the school environment. Schools must provide explicit and consistent instruction in how to get along with others, resolve conflicts peacefully, and develop other life skills.

Students need to gain a commitment to learning, positive values (strong values that guide their choices), social competencies (that equip them to make positive choices, to build relationships, and to succeed in life), positive identity (strong sense of their own power, purpose, worth, and promise).

At-Risk program premise: A program designed to improve and enhance the regular education program for students in at-risk situations. The purpose is to increase the achievement and reduce the dropout rate of identified students in at-risk situations.

A student is not “at-risk”, rather, is *in a situation of at-risk*. Students in any grade are identified as students in at-risk situations if they are not disabled and reside in a residential placement facility, emergency shelter, psychiatric hospital, halfway house, group home, are undergoing undue emotional/physical distress due to situations in life, qualify for Section 504 support, are in temporary medical need, exhibit failure to succeed over their educational history but do not qualify for IDEA support, and student’s identified by the school at-risk team as requiring extra support. At-risk programs provide a continuum of support that leads to student self-determination, self-advocacy, and self-responsibility.

“Engagement in school” is often cited as an essential component of dropout prevention programs or other interventions for students at risk. The primary objective of instructional practice should be to maximize the engagement of individual students in the learning process. Student engagement, having both behavioral and affective elements, is essential to learning.

Disengagement from learning – in both behavioral and affective forms – is especially problematic among students at risk. Participation includes basic behaviors such as the student’s acquiescence to school and class rules, arriving at school and class on time, attending to the teacher, and responding to teacher-initiated directions and questions. Noncompliant behavior represents a student’s failure to meet these basic requisites. Other levels of participation include initiative taking on the part of the student. Identification (the affective component) refers to the student’s feelings of belonging in the school setting and valuing the outcomes that school will provide. It may be impossible for some students to see any advantage to school participation when the immediate rewards are few and relationships with school staff are adversarial. Poor engagement behaviors are more common among students at risk. (Finn, Pannozzo, & Voelkl, 1995). Inattentive-withdrawn behavior is a problem with special significance because of teachers’ failure to recognize the severity of the problem, even though it has been shown to be related to depressed academic performance.

Class Size issue: “The observation of classroom process variables revealed very few effects of class size. Class size did not affect the amount of time teachers spent talking about course content or classroom routines. Nor did it affect the choice of audience for teachers’ verbal interactions; that is, when they changed class sizes, teachers did not alter the proportion of their time spent interacting with the whole class, with groups, or with individual pupils.” (Shapson, etal. 1980) No differences were found in student satisfaction or affective measures, and no differences were found for most teacher activities, subject emphasis, classroom atmosphere, or the quality measures.

The At-Risk program premise is that students learn in different ways and at varying rates and require different amounts of instructional support. Adaptive instruction tailored to the needs and the learning characteristics of individual students, and specific interventions are used to increase each student’s ability to benefit from the learning environment. The focus is on student self-determination and self-responsibility.

At-risk factors – School intrinsic:

- Expelling students without alternative educational opportunities
- Failure to provide a safe school environment
- Inappropriate disciplinary techniques
- Inflexibility of regulations that do not address the needs of individual students
- Lack of ability or willingness to make accommodations for individual disabilities
- Lack of ability or willingness to deliver core curriculum in a variety of techniques
- Lack of acceptance by schools of parents as working partners in the educational process
- Lack of positive reinforcement
- Narrow vision of acceptability of student behaviors and appearance that do NOT affect learning

Organizing school day and parent involvement in ways that do not accommodate working parents
Poorly prepared lesson plans to accommodate diverse learners
Expelling students for truancy

At Risk factors – Family related:

Change in guardianship or custodial status
Child of an alcohol or drug abuser
Death in family
Divorce/separation
Dysfunctional family management
Family illiteracy
Mobility
Physical/sexual/psychological abuse
Teenage parent

At Risk factors – Student intrinsic:

Chronic absenteeism and truancy
Teen Pregnancy
Chronic behavior problems
Chronic health problems
Chronic underachievement
Disabling conditions
Giftedness/Creativity
Involvement with the juvenile court system
Lack of social competence and interaction skills
ESL
Low self-esteem
Social/emotional immaturity
Substance abuse
Suicide-prone

Schools have the responsibility for providing a comprehensive service system for ALL students from the basic core curriculum to guidance, prevention, intervention, crisis, assessment, and referral services.

An Implementation Plan for at-risk programs should identify and analyze alternative ways to modify curriculum and instructional and related service delivery practices to best serve the learning needs of individual students. The starting point for improvement is more efficient and effective use of current resources and finding creative ways to redeploy existing resources, including personnel to support implementation. The program will provide a reliable, accountable, and cost-effective process for identifying instructional and related service needs of the students. It is possible to appropriately adapt school programs according to simple yet comprehensive and systematic procedures to focus on individual needs of the students.

Components of the At-risk program:

Φ Individualized Progress Plans: prescriptive component for basic skills mastery providing learning opportunities that foster student self-direction and problem-solving ability while fostering social and personal development to enhance student learning success.

Φ Monitoring System: developed and published by the student through teamwork and creative design. Student and teacher jointly monitor progress in first stages of the program on a daily basis. Student/teacher set daily/class goals and check progress each day. Immediate feedback and follow-through of natural reinforcement/consequence is allowed. Student moves to self-monitoring as he/she progresses in self-determination skills.

Φ Constant, immediate feedback is generated between teacher/student/parent through Powerschool, e-mail service within the school and to parent, phone conferences, review of daily monitoring sheet with advisor/parent/student/teachers daily.

ΦFamily involvement program to support student-learning success initiated when student is referred and enters at-risk program. Meeting with parent/student/teacher/advisor required to enter program. Home visit may be necessary to facilitate this.

ΦSelf-determination skills learning (Self-Determination/Michigan University)

ΦSurvey of faculty/student/parent satisfaction with program each grading period

ΦOpen forum atmosphere between faculty/parent/student and AR program to implement suggestions and solve concerns/problems

ΦWillingness of staff and support of administration to creatively solve problems with students, not for them.

ΦStudy skills learning (Video One learning tapes)

ΦPersonal management skills learning (Sean Covey: 7 Effective Habits/Teens)

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SCHOOL-WIDE DISCIPLINE PRACTICES: A LOOK AT THE EFFECTIVENESS OF COMMON PRACTICES

Creating safe schools is a priority in the United States. The highly publicized school shootings of the late 1990's created a public perception that schools are unsafe (Dwyer, Osher, & Hoffman, 2000). Because of the publicity of these issues, attention has focused on preventing school violence and making schools safer places (Dwyer, et. al., 2000).

Schools have always used school-wide discipline procedures, typically by providing a negative consequence to students who engage in inappropriate behavior. The emphasis on proactive, preventative strategies has not been a focus until the last ten years. In 1998, "Early Warning, Timely Response: A Guide to Safe Schools" (Dwyer, Osher, & Warger, 1998) was commissioned by President Clinton in response to school violence issues. Clinton directed the Department of Education and the Department of Justice to develop this resource to provide schools with strategies that will prevent violence. The booklet was distributed to every school in the United States. Its purpose was to help "adults reach out to troubled children quickly and effectively" and to focus on promoting safe schools through community-wide efforts (Dwyer, et. al., 1998). While this resource has provided valuable information to schools as they plan for safety, there continues to be a great deal of discussion regarding which techniques and strategies are proven to be effective, and which should be adopted by schools.

Despite the fact that this resource was so widely distributed and schools have placed so much emphasis on designing effective school-wide discipline plans, the vast majority of schools in the nation continue to use negative consequent methods of school-wide discipline, with little or no positive or proactive strategies (Dwyer, et. al., 2000; Henley, 1994; Lewis, Sugai, & Colvin, 1998). These methods occur after the behavior problems have surfaced and include probation, suspension and expulsion (Adams, 1992). Investigation of the most commonly used procedures indicates that they use very few proactive or remedial processes in addition to the negative consequences (Adams, 1992; Chung & Paul, 1996; Lewis, Sugai, & Colvin, 1998).

The literature commonly agrees that these negative consequence forms of school-wide discipline have not been effective (Adams, 1992; Chung & Paul, 1996; Henley, 1994; Lewis, Sugai, & Colvin, 1998; Walker, Shinn, O'Neill, & Ramsey, 1987). Changes can be made to these systems which would likely make them more effective. Professionals commonly agree that when schools use negative consequent-based school-wide systems, other positive and proactive techniques or strategies should also be used (Dwyer, et. al., 2000).

There are indications that school districts are working toward developing positive behavior strategies which could be incorporated into school-wide discipline systems. Despite the general agreement that negative consequence only methods of school-wide discipline are not adequate, there is little agreement as to what systems should be used in addition, or in place of these procedures. The strategies proposed range from teaching setting specific social skills (Lewis, Sugai, & Colvin, 1998), teaching self control curriculum (Henley, 1994), incorporating individual student counseling (Adelman & Taylor, 2002), increasing teachers' repertoires of discipline strategies (Chung & Paul, 1996), creating a positive school climate (Murphy, 1996), using peer mediation (Tschannen & Moran, 2001), and many other proactive strategies. The variety of these strategies crosses a wide spectrum and have various theoretical underpinnings.

When considering the findings of the experts, there are some common themes. All agree that punitive methods alone are ineffective. They all agree that considering and analyzing risk factors first is important to the development of effective school-wide discipline systems. Adams (1992) proposes considering general risk factors, while Lewis, Sugai, & Colvin (1998) and Henley (1994) suggest reviewing the school environments and teaching students social skills necessary for appropriate behavior. Chung and Paul (1996) believe that better preparation of teachers so that

they are able to handle discipline issues without relying exclusively on punishment will positively impact school-wide student behavior. Turnbull, Edmonson, Griggs, Wickham, Sailor, Freeman, Guess, Lassen, McCart, Park, Riffel, Turnbull, & Warren (2002) propose early identification of students who are likely to demonstrate inappropriate behavior so that intervention can be used before the problems become serious to the student and the school community.

Every proposed system for addressing discipline problems involves some proactive measure. While many of these suggestions are not supported by empirical evidence, the common theme is clear. Schools need to incorporate some type of interventions to avoid behavior problems in addition to the typically used negative consequence only measures. Determining precisely which types of proactive strategies are most effective needs to be the subject of further study. Only by studying and validating effective school-wide discipline systems will schools know how to change systems so that they better meet the needs of schools and students.

The purpose of this article is to review current literature regarding school-wide discipline systems used across the United States. The review looks at strategies suggested by experts, the effectiveness of these systems and research indicating promising school-wide discipline practices.

Article Selection. For the purposes of this review, school-wide discipline systems were defined by the author as any program or system used by a school, applied to all students in that school and which uses positive or proactive strategies to manage student behavior. There were many articles which addressed narrow or specific student behaviors, such as curriculum addressing bullying, but these articles were not included in this review unless the curriculum was used with all students in the school in a systematic manner. Likewise, articles addressing individual student behaviors or the use of functional behavioral assessment were not reviewed because they were not applied to all students in the school.

Only those systems containing proactive or positive school-wide systems were reviewed. A number of articles studied the effects or outcomes of traditional consequence-only systems, but because they did not use positive strategies meant to prevent inappropriate behavior, they were not included.

Keyword searches of educational and psychological journals were conducted. Searches included the keywords "school-wide discipline", "school-wide systems", "discipline systems", "discipline", "school-wide approaches", and "behavior systems". Thirty-four articles met these criteria.

Analysis Procedures. Articles that met criteria were reviewed and key components of the system described were plotted on a matrix to aid in the comparison. Ten common components were identified (see figure 1). All 34 articles reviewed recommended the use of at least one of these ten components.

Then the various ways that each component was used was compared. Similarities and differences in the use of the strategies were analyzed as well as whether the use of the strategy was empirically justified or not. Results of this analysis follow.

Figure 1. Ten strategies articles had in common.

Strategy	Percent of articles
Teaching social skills to students	97%
Development of school and class rules	59%
3-tiered systems (strategies for all students, intense strategies for students at-risk, & individual strategies for specific students.	50%
Community involvement	32%
School climate	29%
Individual counseling	26%
Teaching students negotiation and choice-making skills	15%
Think time/processing time	6%
Peer mediation	6%
Effective instruction	6%

Analysis Results

While there are many commonalities between systems reviewed, the way that these strategies are used is slightly different between the various school-wide systems. A brief review of these differences is worthy of discussion.

Teaching social skills to students. Thirty-three of the 34 articles (97%) target teaching social skills to students to give them strategies for managing their behavior in future situations. The one article that did not specify teaching social skills focused on developing collaborative partnerships with community members. Although social skill development was not specifically targeted, it is not incompatible with the strategies proposed. Essentially 100% of proactive, school-wide discipline strategies incorporate teaching students what they should do in social situations.

There are differences between the systems and how they propose to teach social skills. The general split is the theoretical philosophy about how to teach skills. There is a distinction between cognitive approaches and behavioral approaches. The basic concept is the same and both use role play, modeling, and practice but behavioral approaches teach very specific skills for certain situations or settings (Turnbull, et. al, 2002) and cognitive approaches focus on teaching students to use their understanding of the skills to create functional strategies to make decisions and resolve interpersonal problems (Brion-Meisels & Selman, 1984).

Development of school and class rules. Twenty of the articles (59%) stress the importance of setting school-wide or classroom rules for students to serve as a guide for their behavior. Stating three to five behavioral expectations for students is a key component of the Positive Behavioral Supports school-wide discipline system (Sprague, Sugai, Horner, & Walker, 1999). Even systems other than Positive Behavior Supports suggest establishing rules to serve as behavior guidelines for students so that they are better able to self regulate their behavior (Skiba & Peterson, 2000).

Three-tiered systems. Thirteen reviewed articles (50%) suggest the use of a three-tiered school-wide system that provides the level of intervention that is appropriate for each student in the school, rather than adopting a single intervention package that attempts to meet all student needs (Sprague, et. al., 1999). A three-tiered system provides universal strategies that would be available to all students and likely meet the needs of 85 to 90% of students. Selected strategies would target those students who are considered "at-risk" because they have shown some problems. Selected strategies are used with small groups and likely meet the needs of 7 to 10% of students. Targeted or intensive strategies would be provided individually to specific students who have demonstrated that they are at high risk for problem behaviors. This group of students is likely to encompass 3 to 5% of students in a school (Sprague, et. al., 1999). A three-tiered system provides support for all students and allows for progressively more intense and individualized strategies for specific students who have greater need.

Community involvement. Eleven articles (32%) stress the importance of schools working with the entire community that surrounds the school. The premise is that schools must reflect the values of the community and that schools lack the range of resources to address all student needs. Schools that build collaborative relationships with families, mental health providers, child welfare agencies, juvenile justice programs and other human service agencies are better able to develop systems within the school to address all student needs and achieve better outcomes for students (Eber, 2001; Bemak & Cornely, 2002; Adelman & Taylor, 2002). Policies developed with these multiple inputs will be more comprehensive and the support system for students will be broader.

School climate. Ten articles (29%) describe school climate as being an important influence on student behavior, and describe a positive school climate as an indicator of low student problems. School climate involves school stakeholders and community members developing a vision of the ideal school and working together to create that school (Willert, 2002). Strategies might include administrators and teachers adopting a supportive attitude toward students and reflecting community values in their policies. It also means having adequate support services, such as counseling and interventions responsive to students needs (Willert, 2002; Hyman & Snook, 2000).

Individual counseling. Nine articles (26%) promote the use of individual counseling for students who exhibit behavior problems which are not prevented by other proactive strategies. As in the three-tiered systems, these articles recognize that universal school-wide systems will not adequately address all student needs. Counseling students individually allows for treatment of severe and chronic problems (Adelman & Taylor, 2002), and emphasizes primary prevention and healthy development of students (Jackson, 2000).

Teaching students negotiation and choice-making. Five articles (15%) propose the use of a curriculum which teaches students to become aware of conflicts and teach them how to make choices for negotiating and resolving conflicts (Tschannen-Moran, 2001). Teaching students to use choice-making and negotiation skills is similar to other social skills curricula, but specific in the skill that is taught. The use of this type of curriculum, as described in articles reviewed, was primarily used as a supplemental strategy in conjunction with other proactive strategies.

Brion-Meisels and Selman (1984) describe the components of teaching interpersonal negotiation strategies as including student ability to: 1) label the interpersonal problem, 2) generate alternative solutions, 3) anticipate consequences for self and others, and 4) evaluate outcomes. Although other descriptions of teaching negotiation and choice-making skills are not as detailed in other articles reviewed, the general procedure is similar in all.

Think time/processing time. Two of the reviewed articles (6%) suggest allowing students to have time to think through a problem, or process the problem, in order to give the student time to stop a negative interaction and have time to think of and use an appropriate behavior or skills to use in the future. This can be used when an inappropriate interaction occurs (Nelson, 1997) or as a goal setting activity which can guide future academic and social behaviors (Rice, 1994).

Peer mediation. Two reviewed articles (6%) suggest the use of peer mediation as part of their school-wide discipline plan. Peer mediation involves teaching a small group within the student body to mediate conflicts of other students (Tschannen-Moran, 2001). Student mediators are supported and taught by school faculty.

Effective instruction. Two articles (6%) make the premise that school violence and student behavior problems begin with academic failure. Both state that in addition to other positive and proactive strategies, effective instruction will foster student safety. Scott, Nelson and Liaupsin (2001) suggest that research indicates that improved academic performance is associated with reduction in delinquency, and therefore there appears to be a clear reciprocal relationship between academic and social behavior.

Several strategies were used only once in any system. These included using a democratic approach, teaching students to be resilient, fostering student responsibility, using cooperative learning strategies and using a unified discipline approach.

Summary. Every article that was reviewed incorporated at least two of the ten strategies in its proposed school-wide system and 26 of the 34 articles (76%) used three or more of these ten strategies. Five of the 34 articles described additional, unique components that were not used in other systems. This demonstrates that no proposed positive school-wide system suggests that one strategy is powerful enough to be effective in isolation.

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THE MONTANA BEHAVIORAL INITIATIVE: STUDENT RESULTS AND SYSTEM OUTCOMES

The Montana Behavioral Initiative (MBI) was developed in 1995 in an effort to build safe school environments in Montana's public schools through school-community collaboration and direct student instruction to teach responsibility and respect (Fishbaugh & Furshong, 1998). The initial elements of the MBI process were extensions of existing programs in elementary, middle, and high school programs through a strategically focused effort to promote organized team approaches and school responsibility plans to create safe, civil, and achieving environments. In the initial year of MBI implementation, 5 community/school partnerships representing 9 individual schools were selected to become model MBI sites. From this modest beginning, the number of participating MBI sites has expanded annually from the initial 5 to its present configuration of 119 school/community sites. The total of participating schools has risen from the initial collection of 9 to 167 in the 2001-2002 school year. Table 1 provides a summary of the progressive development of participating sites and schools in the MBI process.

Table 1
Montana Behavioral Initiative: Number of Participating Sites and Schools

School Year:	Number of Sites	Number of Schools
1995-1996	5	9
1996-1997	5	32
1997-1998	19	65
1998-1999	44	90
1999-2000	77	123
2000-2001	98	146
2001-2002	119	167

The Montana Behavioral Initiative is supported through the efforts of the Montana Office of Public Instruction, in cooperation with local school districts across the state. Representatives from both state and local education agencies have been engaged in strategic planning processes to identify the mission and goals of the initiative. The current mission statement states that: "The Montana Behavioral Initiative (MBI) assists educators, parents, and other community members in developing the attitudes, skills, and systems necessary to ensure that each student, regardless of ability or disability, leaves public education and enters the community with social and academic competence" (Montana Office of Public Instruction, 2002). The term initiative refers to proactive efforts by community process designed to meet students' diverse and complex social, emotional, behavioral, and academic needs. The goals that have been adopted to achieve the MBI mission include the following:

1. To increase the awareness and understanding of effective schools practices.
2. To increase and improve the use of team processes in educational decision-making and in addressing issues concerning our youth.
3. To support the implementation of best practices procedures in Montana's schools, foster beliefs which hold that all children are valued, and that positive and proactive approaches to problems produce the most satisfying results.
4. To increase awareness regarding the value and use of data-based decision-making in education.
5. To foster the belief that the education of today's youth is a community responsibility.

The rationale for creating the MBI process was in response to increased incidents of insubordination, alienation, aggressive behavior, truancy, drug use, drop out rates, and vandalism among Montana youth. The founders of the initiative envisioned a partnership among school personnel, students, parents, and public officials to share in addressing these concerns by developing a positive school culture that included characteristics of personal responsibility, social responsibility, and productive community participation. Over the past seven years of

MBI implementation, a set of beliefs statements have been developed that provide the philosophical orientation to these efforts. The MBI beliefs statements (Montana Office of Public Instruction, 2002) include the following:

1. All students should be taught all the skills necessary for success including academic, social, emotional, and behavioral.
2. Schools are places where students can learn and practice positive interpersonal, cross-cultural, and citizenship skills.
3. A caring school climate and positive relationships between students and staff are critical to student success and provide an environment where academic flourish.
4. Schools are places where youth have access to many significant adults to help them feel collectively and individually valued.
5. Schools and communities must work together to meet the diverse needs of students and honor the traditions and contributions of both family and community members.
6. All students are entitled to be treated with dignity and respect.
7. Successful schools gather and use a variety of information to improve teaching and learning.
8. Effective use of a team approach involving all school staff working together provides a consistency that enhances student success.
9. Positive, proactive and preventative efforts of schools and communities an create a school climate free of stereotyping, harassment, hatred and violence—filled with a concern for justice and fairness.

Theoretical Basis

The Montana Behavioral Initiative is based on the Iowa Behavioral Initiative and the effective schools research summarized by the Northwest Regional Educational Laboratory and the Association for Supervision and Curriculum Development (Cotton, 1999). These research-based frameworks provide a focus on attitudes, skills, and systems that lead to student success and positive school cultures. Schools that promote effective attitudes have unconditional positive regard for students, maintain a positive and proactive focus, assert beliefs of responsibility and self-efficacy, and affirm high, success-oriented student expectations. Schools that develop effective skills match instruction and services to individual student needs, employ proactive curricula, use validated instructional strategies, and provide systematic data-based interventions. Schools that emphasize effective systems are supported by strong leaders, provide an array of services, engage parents, collaborate with community agency and service providers, employ school-wide approaches involving both general and special educators, engage in systematic staff development for school improvement, conduct ongoing program evaluation, and have a clearly defined vision for improvement.

The framework for MBI interventions is based on a foundations approach of establishing positive discipline policies and responsibility curriculum (Sprick, 1998; Sprick, Garrison, & Howard 1992). The foundational approach is employed as the basis for site development of discipline policy and strategies. Detailed needs assessments that are conducted with students, staff, and parents provide the focus on interventions related to school safety, faculty-to-student interaction, and student-to-student interaction. Each participating school is charged to develop site-specific goals and strategies for goal attainment. Additional resources and approaches to support the basic framework are provided through an annual statewide staff development activity known as the Montana Behavioral Initiative Summer Institute. This national recognized professional development institute attracts more than a thousand Montana educators and teams who are educated in best practices and develop opportunities for networking with community partners. In addition to the Summer Institute, the MBI process is systematically supported through additional components. Each component with a brief description of intended purposes that include the following:

1. MBI Facilitators
 - a. Participate in professional development training, enhancing facilitator and team leadership skills
 - b. Help sites develop an understanding of the MBI process
 - c. Organize an MBI team to identify and address site-based concerns
 - d. Guide sites through the MBI process
 - e. Extend knowledge of best practices and validated educational strategies
 - f. Assist in the development of community involvement
 - g. Network with educators and community members statewide
2. MBI Council
 - a. Oversees the development of MBI practices and principles
 - b. Links with the MBI State Coordinator and the other components of the MBI process
 - c. Meets regularly for sharing, communicating, and strategic planning
 - d. Coordinates efforts to impact statewide policies, guidelines, or structures which will promote the mission and goals of MBI
3. MBI Consultants

- a. Develop and provide technical assistance, training, and support services
 - b. Support site teams in their understanding and implementation of MBI goals
 - c. Serve on the MBI Council
 - d. Participate in focused training, joint problem-solving and coordinated efforts to promote the mission and goals of MBI
4. MBI State Coordinator
- a. Links the MBI components together
 - b. Coordinates professional development training
 - c. Networks with other state and local agencies
 - d. Develops materials for use by consultants, facilitators, and Council
 - e. Assists in planning MBI Summer Institute

Though the efforts of the personnel who comprise these four components that provide direction and management support for the statewide MBI process, additional support functions are offered to enhance success. These support functions include information sharing, interagency/community cooperation, and evaluation. Information sharing is accomplished through workshops, conference presentations, listserv participation, web site information, brochures, site visitations, and presentations. Interagency/community cooperation is accomplished through community and statewide agencies that support MBI by working with schools to strengthen policy and procedures to facilitate effective and efficient services for youth, coordinating community-based services with schools, and encouraging change that enable schools and communities to provide quality services to youth. Evaluation is completed through the contracted services of a program evaluator that analyzes statewide implications of MBI, provides for ongoing decision-making and management activities, and facilitates data-driven decision-making management.

The MBI interventions provide a process and content that assist organizations to improve school climate and classroom environments to meet the needs of all students, including those with behavioral challenges. The term initiative refers to proactive efforts by schools to identify priority concerns involving school safety and to teach alternative acceptable behaviors. Five key indicators that characterize the MBI process in action include MBI training, MBI team process, evaluation process, community process, and proactive support systems approach using best practices. The Montana Behavioral Initiative Blueprint for Implementation (2001) summarizes these key concepts and provides examples of indicators that supply evidence of recognition as a Montana Office of Public Instruction (OPI) approved MBI site. The five key indicators that provide the innovation configuration for the initiative are defined as follows:

- (1) MBI Training is an ongoing program of professional development for MBI building level and district level staff, including MBI organized teams, for the purpose of increasing awareness and understanding of effective school practices.
- (2) MBI Team Process is a systematic professional development approach provided to school-based teams of educators for the purpose of increasing and improving the use of team processes in educational decision-making to address issues concerning Montana's youth. This ongoing process is achieved through a focus on administrative commitment to the MBI process, site-specific goals and implementation strategies, and team building activities.
- (3) Evaluation Process consists of prescribed and optional evaluation tasks that are developed to increase awareness regarding the value and use of data-based decision-making in education.
- (4) Community Process is a set of strategies designed to achieve community involvement to foster the belief that the education of today's youth is a community responsibility.
- (5) Proactive Support Systems Approach Using Best Practices are defined as practices at multiple levels of impact including school-wide, classroom based, non-classroom based, individual student, and family in support the implementation of best practices procedures in Montana's schools. The intent of these practices is to foster beliefs which hold that all children are valued, and that positive and proactive approaches to problems produce the most satisfying results.

The philosophy of MBI is aimed at creating safe, civil, and productive schools. The guiding considerations behind the program are designed to empower individual schools to create their own unique approach to implementation of the MBI content and process. Individual site-based teams determine site needs, make program decisions, and evaluate results based on the systematic collection of data. These teams develop strategies and select procedures appropriate to the individual schools. The MBI process is not a program, which means that implementation activities will vary according to the needs of individual schools.

Rationale

The Montana Office of Public Instruction has introduced, supported, and sustained the MBI comprehensive staff development process since 1994 with the goal of facilitating school system and attitudinal changes that address the complex needs of Montana students in the state's system of public education. The underlying intent of MBI is to provide a process and content that assist organizations to improve school climate and classroom environments to meet the needs of all students, including those with behavioral challenges. A collection of anecdotal evidence exists that supports the effectiveness of the MBI interventions, however no systematic evaluation studies have been completed that document the impact of MBI at the student, school, school district, and community levels of influence.

The purpose of this investigation was to conduct a systematic evaluation of impact in selected schools that have adopted the MBI content-based staff development philosophy and process. The specific questions that were developed to inform this purpose included the following: (a) What are the operational definitions of the five key indicators that represent the MBI content and process? (b) What are the specific elements of content and process that are being used by participating MBI teams and schools? (c) What evidence of short-term and long-term impact of the MBI process has been documented at participating schools? (d) What are the research-based and validated best practices that have been implemented and documented at MBI schools? (e) What other contextual factors influence the outcomes that have been achieved at MBI schools and classrooms? (f) What specific recommendations regarding the effectiveness and potential improvement of the MBI process can be identified? (g) What recommendations can be identified for future enhancement and impact dissemination of MBI?

Method

A set of structured interview questions was developed to solicit information from MBI school settings representing three distinct developmental levels of adoption of the MBI innovation (Heifetz, 1994; Chrislip & Larson, 1994) including established, emerging, and new. All three levels of MBI schools had made commitments to incorporate the mission, principles, and goals of the Montana Behavioral Initiative into the school for the purpose of ensuring a positive school environment. Each MBI school submitted a Document of Participation indicating agreement with the five MBI indicators, completion of the MBI environmental blueprint, commitment to participate in the annual MBI summer institute, and designation of one team member to serve as MBI facilitator and complete the MBI facilitator training. Based on these criteria, staff from the Office of Public Instruction identified five representative schools from each of the outcome groups to provide responses to selected questions. The schools in each of the three MBI school designations (established, emerging, new) represented a variety of settings and student demographics.

The approach to the study was based on a case study methodology (Creswell, 1998; Berg, 2001), that explored detailed, in-depth data collection involving multiple sources of information rich in context. The Montana Behavioral Initiative represents a bounded system, with the elements of the MBI "case" comprised of events, activities, and individuals that provide the context for the investigation. Additional interpretative information obtained through the focus group process has been included to extend the analysis of outcomes and results attained through the MBI interventions. Finally, a summary of various artifacts that were collected throughout the course of the evaluation process has been provided. Selected samples of these artifacts are included as part of the evaluation documentation.

Findings and Recommendations

In reviewing all sources of data that were collected and summarized in support of MBI processes, a variety of recommendations were formulated to build on the success of the initiative. The following recommendations for improvement are offered without consideration of relative importance or priority:

- (1) Future efforts to promote and publicize the components of MBI should clearly distinguish the elements of MBI philosophy (as articulated through the MBI beliefs statements) and MBI process (as described in the MBI Blueprint for Implementation. These distinctions are clear to educators who are knowledgeable about MBI, but not as clear to the uninitiated.
- (2) To build on the success of the excellent MBI Summer Institute, it is recommended that established MBI school sites be interviewed to determine the content of future advanced strands that are offered at the Institute. Several educators expressed a desire to tailor the content of future sessions to identified areas of need from experienced sites.
- (3) The evaluation process to determine the success of MBI schools was primarily concerned with survey information and rough measures of student behavior/responsibility. It is recommended that a template

- of potential assessment practices be developed for MBI school sites that identify integrated behavioral and academic measures that are easy to track.
- (4) To address the difficulties involved in collection and summarization of evaluation data, it is recommended that computerized data entry and analysis programs be identified that would support the evaluation process key indicators of MBI more directly. The Safe Schools Inventory is but one example of this type of process.
 - (5) It is recommended that some type of formalized mentoring support for new MBI school sites be developed to ensure a smooth process of implementing the MBI process. Established school stakeholders could be identified as MBI coaches to address implementation questions and provide support based on successful experiences.
 - (6) Since the community process key indicator was consistently identified as the weakest link in the MBI process, it is recommended that some type of incentive program be developed to encourage stronger school/community linkages in MBI sites. A grant proposal process tied to resources from the education and business communities would be one possibility to promote model sites of MBI initiated school/community partnerships.
 - (7) To assist school sites in selecting promising research-based strategies, curricula, and programs that support their individual goals, it is recommended that a central listing of research-based practices and programs be compiled with a cross-reference to those MBI sites that are or have been using them.
 - (8) The criteria that are identified for recognizing a school site as an approved MBI setting should be clearly delineated. At the present time, there is great variability among the various school settings that are considered to be MBI school sites. Some are sites in name only, while the vast majority of school sites address the process and philosophy of MBI with distinction.
 - (9) In like measure, the criteria for recognizing and "anointing" education staff members as MBI facilitators need to be more clearly delineated. Several educators who were designated as MBI facilitators expressed discomfort that they had not received the necessary background and preparation to be successful in this role, frequently because they had not been able to complete the available training program for facilitators.
 - (10) The promotion of MBI youth oriented events that have recently been initiated through the sponsorship of the Office of Public Instruction, should be integrated into the long standing professional development venues sponsored for MBI staff members. For example, the MBI Youth Day and MBI Forum should be directly integrated into the MBI Summer Institute and MBI facilitator training process. This is particularly valuable for high schools that are considering adoption of the MBI process, since student leadership was identified as the most critical component to success in the high school setting.
 - (11) A focused set of professional development sessions that is specifically targeted at high school athletic coaches should be offered at the MBI Summer Institute and/or regional MBI training events. The potential influence that can be exerted from this group of educational stakeholders on the success of the MBI process was frequently mentioned as a desirable practice by a large majority of current MBI stakeholders.
 - (12) The leadership of the MBI State Advisory Council should extend the influence and messages of MBI philosophy and process to a broader organizational and policy environment. Some logical targets for consideration include the School Boards Association, Legislative Council, Inter-agency Coordinating Council for State Agencies, Montana School Administrators Associations, and Montana Education Association. The positive results and outcomes that are being achieved through the MBI process and philosophy can serve as a catalyst for collaborative partnerships and systems change.
 - (13) Additional research concerning the efficacy of MBI should be undertaken to consider long-term measures of program impact including graduation rates, school dropouts, and employment status of graduates.
 - (14) A follow-up investigation to the present study is recommended through a pre-test/post-test comparison design to determine the effects of the MBI philosophy and process on participating school sites over time. Part of this investigation could be designed to consider measures of the extent to which validated best practices are being implemented, the consistency with which behavior management policies and procedures are implemented, and whether teachers effectively use the identified interventions with targeted at-risk students.

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INCLUSION

The Inclusion program's ***Student Goal*** is to become a self-determined, independent learner by identifying and utilizing resources to meet my needs. Students are enrolled in all regular classes with one period of Inclusion course per day. In regards to the regular class:

"The Core Curriculum represents those standards of learning that are essential for all students. They are the ideas, concepts, and skills that provide a foundation on which subsequent learning may be built. The Core should be taught with respect for differences in learning styles, learning rates, and individual capabilities without losing sight of the common goals. Although the Core Curriculum standards are intended to occupy a major part of the school program, that are not the total curriculum of a level or course." USOE 1984

"To empower students public education must provide individualized opportunities for each student, must monitor each student's progress toward appropriate outcomes as suggested by the Core Curriculum, must modify instruction to facilitate the growth of each student. To have success in empowering students, teachers and parents must have support services which will facilitate the growth of students especially when these students have challenges with the curriculum their lives and/or the lives of their families."
(*A Shift in Focus*, Scott Bean, State Superintendent of Public Instruction)

One of the barriers to including students with disabilities in the regular classroom is that special education often represents a separate department or team in the school structure. Special educators typically operate outside the school's curricular departments. The first step in Inclusion is to develop a commitment to serve all students in general education classes with typical peers and appropriate supports and services. We know that for students to make progress in the general education curriculum, they must have access to general education classes. We also know now that many rich opportunities for developing "functional" or "life skills" exist in regular classes and throughout a typical day. Special educators can provide extra content support through support centers and be available each period of the day for any student who needs help with content area. A scheduling goal is to keep all classes as heterogeneous as possible. Students with disabilities should represent a range of abilities and support needs – rather than clustering students who have very intensive needs in the same class. To this end, the Special Education department will be working to build a climate of collaboration and interdependences, promote the skillful use of paraprofessionals, and promote parents as partners.

Special educators and general education teachers must collaborate to develop criteria to measure performance that focuses on proximal learning goals and progress rather than products alone. Intellectual self-doubts often plague special education students and prevent them from putting forth the necessary effort to succeed in academic activities. Instruction and practice in the application of strategies for independence will not alone improve academic achievement, but helping students exercise better control over academic tasks by using these strategies and reinforcing their success will. Special Education teachers must prepare students to apply learning strategies in a general education class, rather than simply tutor students to pass classes. ***Remediation must be designed to teach content along with learning strategies so the student can fully participate in the general education program.***

The purpose of "modifications/accommodations" is to support the student with a disability ensuring equal access to success in school. They allow students to access core curriculum and demonstrate their learning in multiple ways. "Modification" means a support that does not significantly change the outcome process of a task. "Accommodation" means a support that does significantly change the outcome process of a task. Students with moderate to severe disabilities may need accommodations. Students in the Inclusion program may need modifications. Because Inclusion students are working towards termination of Special Education services it is expected that they perform as close as possible to the same criteria as any student in your class. But (always a big butt in the way) – all children are to be considered individually and may/may not need small modification supports to have equal footing with other students. To be responsible is to have the knowledge that one has control over his/her environment and that consequences, which follow behavior, are natural and predictable.

"The United States should not only have a Statue of Liberty on the East coast, but there should be a Statue of Responsibility on the West coast so that citizens understand that the exercise of liberty must be accomplished with responsibility."

Victor Frankl

1. Commitment to serve
2. Climate of collaboration
3. Opportunity
4. Willingness
5. High standards and expectations
6. Good leadership
7. Progress rather than products
8. Interdependences
9. Skillful use of paraprofessionals
10. Parents as partners
11. Remediation to content with learning strategies
12. Accommodate

Collaborative Education Models

THE MONTANA TRAINING FOR INCLUSIVE EDUCATION (TIE) FINAL EVALUATION

Abstract

The Montana Training for Inclusive Project had as its purpose providing awareness, information, and preparation to school teams for including students with disabilities in general education settings. Federally funded from the 1994/95 school year through 1998/99, the project offered continuing education opportunities for five tiers of educational teams from rural schools throughout the state of Montana. Formative evaluation focused on the interactive television (ITV) continuing education sessions. The final evaluation assessed attitudes toward inclusion and collaboration in TIE schools as compared with non-TIE participants matched on the basis of student demographics, size, and location of schools. Results of statistical analyses indicate that on items addressed by the preparation sessions and over which teachers have some control, TIE participants demonstrated more positive attitudes toward inclusion than did members of the comparison group.

Training for Inclusive Education: The Montana TIE Project

Background

The Montana Training for inclusive Education (TIE) Project was designed to increase opportunities for students with disabilities to be educated in general education classrooms. Federally funded from the 1994/95 school year through 1998/99, the project offered continuing education opportunities for five tiers of educational teams from rural schools throughout the state of Montana. Continuing education for cooperative learning and inclusion strategies, and development of team building, collaboration, and peer coaching skills provided participants with awareness, information, and preparation needed to implement inclusive educational practice. In the spring of 1993, the Montana Office of Public Instruction (OPI), Division of Special Education Comprehensive System of Personnel Development (CSPD) conducted its biennial needs assessment. Information and preparation on the roles and responsibilities for Inclusion emerged as the respondents' highest need. The third priority need was preparation for collaboration, consultation, and co-teaching. Project TIE proposed to address both priority areas.

Inclusive Educational Practice

The passage of the Education of the Handicapped Act (EHA) in 1975 mandated providing special educational services for students with disabilities. In the more than 20 years since, such special services have often meant that students with disabilities are segregated from their non-disabled peers even though the original law and its many re-authorizations have also mandated that students with disabilities be educated in the Least Restrictive Environment (LRE). For students to realize mainstreaming, however, has usually meant that they are "guilty until proven innocent". They have had to prove their ability to participate with their peers. IDEA-97, the most recent re-authorizations of special education law, strengthened the LRE concept by using the word "included" in several places, most notably, that students with disabilities should be included in state and district assessments and that they should have equal access to the general education curriculum.

Inclusion means providing opportunities for students with disabilities to attend school with their non-disabled peers and to participate as fully as possible in the educational process within general education classrooms. Inclusion means that students are "innocent until proven guilty" in the best American jurisprudential sense. A student with whatever abilities or disabilities should be educated with their peers and be separated only for limited periods of time for specific purposes. The concept grew from the Regular Education Initiative (REI), a phrase coined by Madeline Will in 1986 when she served as Assistant Secretary of the Department of Education (DOE) with executive director responsibilities for the Office of Special Education and Rehabilitation Services (OSERS). The Assistant Secretary proposed that students with mild learning disabilities needing less intensive interventions should be educated entirely in the mainstream of education. Quickly embraced by special educators and parents of students with special education needs, the idea was extended to all students regardless of the type or severity of their disability.

The Association for Supervision and Curriculum Development (ASCD) devoted an entire issue of their journal, *Educational Leadership* (1994/95), to the inclusive school. Articles in that issue provided position statements, strategies, and research related to Inclusion. Baker, Wang, and Walberg reviewed three meta-analyses of educational literature addressing the most effective setting for children with disabilities. Effect sizes evidenced small to moderate benefit of inclusive education on the academic and social outcomes of the children. Rarely showing negative effects, there was considerable evidence that segregation was actually deleterious to academic performance and social adjustment. Staub and Peck reviewed research addressing the three most common concerns with regard to effects of Inclusion on non-disabled students:

- Will inclusion reduce the academic progress of non-disabled children?
- Will non-disabled children lose teacher time and attention?
- Will non-disabled students learn undesirable behavior?

While there was little to support these concerns, there was support for the potential benefits of inclusion:

- Reduced fear of human differences with increased comfort and awareness.
- Growth in social cognition
- Improved self-concept
- Development of personal principles
- Warm and caring friendships.

A second issue of the journal (*Educational Leadership*, 1996) provided strategies for working with students with special needs. Slavin suggested preventing learning disabilities to begin with; Graves, Graves, and Braaten provided pre-, during-, and post-reading activities to scaffold reading experiences in inclusive classrooms. Armstrong proposed an holistic approach for addressing ADD/ADHD that would include cognitive, ecological, physical, emotional, behavioral, and social, as well as, educational factors. Giangreco outlined a teacher's guide with ten strategies toward including students with disabilities:

- Get help from friends
- Welcome the student onto your classroom
- Be the teacher for all students
- Make sure everyone belongs to the classroom community
- Clarify shared expectations with team members
- Adapt activities for student needs
- Provide active/participatory learning experiences
- Adapt the classroom arrangement, materials, and strategies
- Secure help from support services
- Continually evaluate your teaching.

Even with research demonstrating the benefits of Inclusion and lists of suggestions for implementing inclusive educational practice, educator attitudes have remained less than positive. Cook, Tankersley, Cook and Landrum (2000) examined the attitudinal categories of attachment, concern, indifference, and rejection related to teacher attitudes toward their students with disabilities. Students with disabilities were under represented in the attachment category and over represented in the concern and rejection categories. As teachers gained experience with the students, they exhibited more concern. The authors suggested that a strategy for improving attitudes and teacher-student interactions might be to place students with disabilities in general education classrooms of teachers with previous positive experiences.

Salisbury and McGregor (2002) studied the characteristics of administrators and schools that successfully included students with disabilities. They found commonalities in leadership practices, consistent patterns in climate indices, and a range of administrative strategies. Principals tended to be supportive rather than directive or restrictive. Teachers demonstrated collegiality and friendliness as opposed to being disengaged. Principals were self-directed, invested in relationships, accessible, reflective, collaborative, and intentional. The combinations of these factors resulted in a school that was supportive of teachers' efforts, friendly toward students, and purposeful in continuing efforts to practice Inclusion.

Figure 1 Responsible Inclusion.

INCLUSIVE EDUCATIONAL PRACTICE

INCLUSION IS

- All Students
- Special Assistance as Needed
- Natural Proportions
- Differing Expectations for Individuals
- Appropriate Class Size
- Team Approach
- Resources and Supports
- Continuing Education Opportunities
- Ongoing Technical Assistance

INCLUSION IS NOT

- Placement By Category
- Once in Resource, Always in Resource
- All Special Needs Students in One Class
- Expecting All Students to Achieve Similarly in the Standard Curricula
- 30 Students, 1 Teacher, Ability Extremes
- 1 Teacher, Alone, Meeting Student Needs
- Lack of Necessary Services, \$\$, Materials
- Unprepared Teachers Responsible for All
- One-time Workshop with No Follow-up

Collaboration for Inclusion

TIE participants enrolled as school teams for several reasons. *First*, for Inclusion to be successful, all members of the educational community need to work together to provide wrap-around services for students. One teacher alone in a classroom cannot hope to accommodate the educational needs of 20 to 30 students exhibiting a wide range of academic ability, physical skill, and behavioral appropriateness. Inclusion demands a team effort with on-going support for the teacher. Figure 1 contrasts responsible Inclusion with educational "dumping" that is often called Inclusion and so gives the practice its bad name. *Second*, recognizing their need to work as educational teams, Montana teachers and administrators at all levels—pre-K through higher education—responded to the CSPD survey with their need for preparation in this area. *Third*, federal special education law mandates that students with disabilities be assessed by a multi-disciplinary team, that their Individual Education Programs (IEPs) be developed by a team, and that they receive services from teachers and related services personnel as necessary. Professional collaboration is mandated by IDEA-97.

Volumes have been written to guide professionals in their efforts to collaborate. An early text by Idol, Paolucci-Whitcomb, and Nevin (1987) described "collaborative consultation" as a triangular process through which consultant (special educator) guides consultee (regular teacher) in meeting the needs of their client (student). Similarly, Sugai and Tindal (1993) provided a guide for effective school consultation by special educators. Joyce and Weil (1996) outline a process of peer coaching as teachers help each other to implement different models of teaching. *Educational Leadership* (1996) devoted an issue to improving professional performance through coaching. Garmston (1987) suggested technical, collegial, and problem-solving as reasons for professional coaching. Morsink, Thomas and Correa (1991) addressed interactive teaming for special education. Similarly, Dettmer, Thurston, and Dyck (2002) address consultation, collaboration, and teamwork for students with disabilities. Fishbaugh (1997) provided a schema that differentiates among consultation, coaching, and teaming as different models of collaboration along a continuum of practice.

Some authors guide professionals with skill development for collaborative practice. Friend and Cook (1996) begin with collaboration fundamentals, address applications, and emphasize communication and problem-solving skills as essential for successful collaboration. Johnson, Pugach, and Cook (1993) structure professional coaching into initiator/facilitator dyads that follow a specified sequence for problem solving. Cramer (1998) provides the following steps for successfully implementing collaboration:

- Evaluate the current situation
- Develop a collaboration strategy
- Design a plan for change
- Evaluate the plan
- Sum-up outcomes
- Generalize the plan with other professionals, the students, and their caregivers

Fishbaugh (2000) has developed a collaboration guide for early career educators that includes information and guidance with regard to mentoring, clinically observing performance, working with diverse constituencies, and communicating to solve problems.

Project TIE enrolled educational teams from rural schools throughout Montana. The teams included general and special teachers, the school administrator, paraeducators, and parents. Over a five-year project period, five different Tiers of teams participated in workshops addressing awareness, information, and strategies for including students and for working as team members. TIE presenters delivered the workshops through interactive television (ITV). Based on formative evaluation of the workshops (Fishbaugh & Rose, 1995-98), format and content were adjusted with each Tier to provide optimal preparation for Inclusion. The present paper reports the results of the final project evaluation addressing participant attitudes toward Inclusion and Collaboration.

TIE Workshops

The TIE project had two goals: (a) to prepare teachers with cooperative learning and inclusion strategies, and (b) to promote team building and coaching. Tier I began TIE preparation with an on-site conference, the Diversity Leadership Institute. Held in January, the 18 Tier I (1994/95) teams came together to meet and begin developing an awareness of inclusive educational practice. Teams represented small schools from the five CSPD regions in the state—Eastern Montana, North Central, South Central, Southwest, and Northwest. Five workshops following the Institute were conducted over the MetNet ITV system and addressed the following topics:

- Cooperative Learning Strategies I (February)
- Peer Coaching and Team Building I (March)
- Cooperative Learning Strategies II (April)
- Peer Coaching and Team Building II (May)
- Team Building and Problem Solving (September)

The second year TIE teams, Tier II (1995/96) began their project participation in November with the initial Institute. Eleven new teams met with the original 18 teams who shared their beginning Inclusion experiences. The nine teams represented both small rural schools and larger town schools from Eastern, Central, and Western regions of the state. Tier II ITV workshops included the following topics:

- Cooperative Learning Strategies (Feb)
- Peer Coaching and Team Building I (March)
- Addressing Problem Behavior (March)
- Peer Coaching and Team Building II (April)
- Strategic Instruction and the Democratic School (May)

Tier III (1996/97) TIE teams represented Eastern and Central Montana. All but one team came from small rural communities. The third Inclusive Education Conference was held in November. Although the focus was on new team information and development, previous teams were encouraged to attend as mentors and for support. Tier III began their MetNet workshops in January and continued through spring semester 1997 with the following topics:

- Educating All Children (January)
- Collaboration (February)
- Positive Approaches to Challenging Behavior (March)
- Supportive Cultures (April)
- Instructional Strategies and Teams (September)

TIER IV (1997/98) attended the initial conference in December. The remainder of their workshops addressed the following topics:

- Educating All Children (January)
- Collaboration (February)
- Positive Behavioral Supports (March)
- IEP Goals, and Para/Peer Support (April)
- Strategies Sharing (September)

Throughout the project, workshop topics addressed the two project goals of inclusion strategies and teaming. Specifics of the workshop content evolved over the course of the project based upon on-going formative evaluation and previous Tiers' experience. Although not of statistical significance, formative evaluation data trends were positive as workshop format and content were adjusted to accommodate participant needs. No data are available for TIER V. It was during the final year of the project that the final evaluation was implemented.

Method

Participants and Procedure

In order to assess outcomes of TIE at the end of the project's five-year funding cycle, attitudes toward Inclusion and Collaboration in the participating schools were contrasted with matching non-participating schools. Over the first four years of the project, 49 Montana schools attended the initial on-site Institutes/Conferences and participated in distance education via ITV. These schools were matched with schools similar in student population, student demographics, and school location (e.g., small town, rural, remote).

School personnel completed The Questionnaire on Inclusion and the Questionnaire on Collaboration, both described below. This was a mail-based survey. The two surveys with scan-tron answer forms and return, self-addressed envelopes were sent to participant schools and their matches. Initial mailing took place in October. The final returns were received in February. Data analyses, planned for May, were delayed due to changes in equipment and hardware. These changes forced the re-recording of responses on new forms and computer data entry, rather than scan-tron machine analysis as originally planned. Factor analyses were performed on both surveys. T-tests compared factor responses between participants and matches.

Of the 49 TIE schools, 31 (63%) returned questionnaires—Tier I-9 schools, Tier II-6 schools, Tier III-9 schools, Tier IV-7 schools. Of the matches, 32 schools (65%) returned questionnaires—Match I-12 schools, Match II-6 schools, Match III-7 schools, Match IV-7 schools. Of the returns, 495 individual responses were usable.

Instrumentation, Data Analysis, and Results

Questionnaire on Inclusion. The instrument used to measure regular education teacher attitudes toward inclusion was the Hudson, Graham, and Warner (1979) Questionnaire on Inclusion. Minor changes were made to the language in this survey to reflect the evolutionary changes in special education terminology. For example, the survey originally used the term "mainstreaming," and the word "inclusion" was substituted throughout. This survey instrument was selected because it purports to address six important features of inclusion—overall attitude, perceptions of time, materials, skills, support services, and need for additional preparation. To ensure that this survey addressed current issues of inclusion for children with special needs in the regular classroom, professionals in the field were asked to provide a peer review for relevance to present day issues and question clarity. Reviewers supported the current salience of the features identified above for regular education teachers, and considered this questionnaire to be appropriate for the intended purpose of this research. The instrument has been reviewed (Horner, 1980) and found to demonstrate adequate reliability as well as content and construct validity.

Hudson, et al. (1979) provided the following description of their scale:

A 28-item questionnaire was designed to measure six categories of teacher attitudes and needs in relation to teaching mainstreamed exceptional children. Initially 36 Likert-type items were constructed.

Five experts, working independently, categorized each item as belonging to one of six categories. Only those items which were categorized identically by four of the five experts were retained for statistical analysis. The six categories were attitudes, time, materials, skills, support services, and training. The categories contained 6, 4, 3, 8, 3, and 4 items, respectively. The questionnaire evidenced content and construct validity. Overall, correlations between an item and the mean score for the category to which the item belonged were higher than correlations between the respective item and the total score on the questionnaire. Furthermore, the means of items within a category were highly similar. The split-half (odd-even) reliability of the instrument was high ($r = .80$). Thus, the questionnaire appears to be sensitive to the attitudes and perceptions of regular classroom teachers with regard to mainstreaming exceptional children (p. 59).

The survey uses a five-point, Likert-type format wherein the respondents rate level of agreement with the 28 statements. On the original survey, a score of "1" on an item indicated strongest agreement with the item. For present use, the scale was reversed, thus a score of "5" indicated "strongly agree." For the purposes of this study, agreement with Items 1 through 23 was considered to reflect a positive attitude toward inclusion, so the higher scores were given for agreement. Items 24 through 28 are written such that agreement with the items indicates a negative attitude, so the lower scores were given for agreement with the last five items on the survey.

Table 1 Questionnaire on Inclusion Factor Analysis
Rotated Component Matrix(a)

	Component			
	1	2	3	4
Q1	.688	.197	.055	.097
Q2	.587	.199	.177	.006
Q3	.660	.149	.081	.114
Q4	.607	.135	.063	.056
Q5	.658	.273	.045	.055
Q6	.735	.218	.094	-.026
Q7	.562	.035	.483	-.043
Q8	.588	.103	.507	.008
Q9	.664	.126	.394	.055
Q10	.564	.055	.511	.099
Q11	.350	.497	.220	-.042
Q12	.193	.235	.614	.049
Q13	.104	.408	.568	.061
Q14	-.043	.632	.084	.161
Q15	.320	.657	.196	.207
Q16	.362	.665	.187	.064
Q17	.205	.690	.068	-.095
Q18	.142	.803	.066	.091
Q19	.264	.676	.179	.067
Q20	.375	.562	.032	.087
Q21	.023	.590	.223	.177
Q22	.096	.169	.689	.069
Q23	.104	.103	.740	.101
Q24	.335	.070	.374	.410
Q25	.014	.035	-.010	.745
Q26	.209	.258	.142	.684
Q27	.202	.287	.148	.745
Q28	-.147	-.036	.006	.751

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

The sample size of 272 for the TIE group and 223 for the matched control group provides an adequate basis for these analyses. Data were analyzed using S.P.S.S. Based upon this sample size (495), the loadings were nearly all at or above the moderately significant range (Hair, Anderson, Tatham & Black, 1998), for practical and also for statistical significance (alpha .05). Examination of the correlation matrix revealed that more than 60% of the correlations were significant at the .05 level.

Table 1 presents six possible factors that were identified based upon eigenvalues >1. Indeed, as many as eleven factors could have been extracted. However, the model began to lose salience in terms of data reduction as well as weakened the ability to define an underlying structure among the variables. After Varimax rotation, examination of the variables in those factors suggested that a more parsimonious model based upon four components would have greater practical significance. Thus four factors were extracted, reflecting the most parsimonious representative analysis of the components, and together, those components account for 53.5% of the cumulative variance.

Questions 1 through 10 loaded on factor one. This factor appears to reflect the teachers' ability to effectively meet the needs of all students in the regular education classroom. It includes attitudes about teachers' willingness to include a student with disabilities in their classroom, about teachers' ability (including time) to effectively teach all students, about whether the presence of this student would be detrimental to the others in the classroom, and finally about whether greater academic benefit would result for the included student from this placement.

Not surprisingly, this component is the only one affected by T.I.E. preparation. Independent -samples T tests were conducted between the treatment and matched groups for each of the four identified factors. The Levine's Test for Equality of Variances were not significant, suggesting that the variances across the groups are homogeneous, and equal variances were assumed. The mean of the treatment group (Table 2) was significantly higher ($m = 26.08$, $sd = 8.027$) than the matched control group ($m = 24.46$, $sd = 8.544$). Factor one resulted in $t = -2.175$; $df = 493$; significant at .05 confidence interval ($p = .030$).

Factor two reflects the teachers' attitudes about whether they have the specific skills necessary to teach the student with disabilities. This component includes items 11, 14, 15, 16, and 17-21. These items include the ability to identify students with disabilities, interpret assessments, identify learning needs, individualize instruction, adapt instructional materials, and manage behavior. The t test between the treatment and matched control group resulted in $t = -1.83$; $df = 493$; not significant.

The third factor includes items 12, 13, 22 and 23. These relate to attitudes about resources and supports available to teachers, and include identification and present availability of instructional materials, as well as support from resource teachers, consultants, paraeducators, psychologists, and social workers. The t test for this component was as follows: $t = -1.70$; $df 493$; not significant.

Table 2. Questionnaire on Inclusion Factors' t-test.

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
FACTOR1	Equal variances assumed	1.813	.179	-2.175	493	.030	-1.62	.747	-3.090	-.157
	Equal variances not assumed			-2.161	461.537	.031	-1.62	.751	-3.100	-.147
FACTOR2	Equal variances assumed	2.454	.118	-1.483	493	.139	-.99	.669	-2.305	.322
	Equal variances not assumed			-1.475	462.733	.141	-.99	.672	-2.313	.330
FACTOR3	Equal variances assumed	.145	.703	-1.170	493	.242	-.55	.472	-1.480	.375
	Equal variances not assumed			-1.168	470.398	.243	-.55	.473	-1.482	.377
FACTOR4	Equal variances assumed	3.117	.078	-1.288	493	.198	-.38	.298	-.970	.202
	Equal variances not assumed			-1.276	453.870	.203	-.38	.301	-.976	.208

Table 3. Questionnaire on Collaboration Factor Analysis

	Component			
	1	2	3	4
Q1	.751	-.113	.012	-.004
Q2	-.064	.468	-.059	.198
Q3	-.530	-.128	-.068	-.024
Q4	.162	.087	.224	.529
Q5	.105	.054	.751	.108
Q6	-.009	.478	-.002	.570
Q7	.593	.270	.086	.293
Q8	-.052	.367	-.112	.662
Q9	.035	.156	.753	.064
Q10	.283	.255	.388	.171
Q11	-.003	-.141	.085	.680
Q12	.240	.616	.178	.173
Q13	.586	.255	.113	.036
Q14	.249	.149	.302	.368
Q15	.132	.732	.259	-.064
Q16	.515	.572	.215	.063
Q17	.162	.709	.116	.052
Q18	.580	.454	.158	.065
Q19	.649	-.056	.119	-.025
Q20	-.094	-.042	-.579	-.004

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. a Rotation converged in 6 iterations.

The final component contains items 24 through 28 and reflects attitudes toward the need for additional support, preparation and continuing education as they relate to teaching students with disabilities in their classroom. Again, the t test was not significant, with $t = -1.288$; $df = 493$.

Questionnaire on Collaboration. Based upon the focus of the preparation provided through the TIE project, a questionnaire was used to assess attitudes of teachers toward collaboration. Factor analysis was again used to identify a parsimonious model of collaboration, and four factors clearly emerged (Table 4). Once again, Levine's Test for Equality of Variances were not significant, suggesting homogeneity across groups, and supporting the assumption of equal variances.

Factor one focused on attitudes toward expected adverse classroom climate changes as a function of classroom observation. It reflects teacher fears of classroom observation, and how those fears would affect the classroom climate. It includes the tenseness that accompanies anticipated critical judgment, and the expected changes in student responses. Questions 1, 3, 7, 13, 18, and 19 fall within this factor.

The second factor reflects the view that, while it would be helpful to learn from other teachers, classroom observation is a primarily seen as a potentially punitive tool of administrative evaluation. It includes the expectation that asking for help and advice reflect teacher weakness. Questions 2, 12, 15, 16, and 17 load on this factor.

Factor three reflects a lack of specific experience with collaboration. Responding teachers knew little about other teachers' experiences, and other teachers knew little about the participating teacher's classroom situation. This lack of interaction was also reflected in respondents questioning why someone would even be coming into their room. Questions 5, 9 and 10 loaded on this factor.

The fourth factor reflects attitudes toward receptivity to observation and collaboration, including elements of feeling at ease with the process, welcoming suggestions/advice/conferencing from others, and expectations of a constructive outcome in terms of effective teaching. This factor included loadings from questions 4, 6, 8, 11, and 14. Not surprisingly, this is the factor that resulted in a close to significant t test (Table 4) for independent means between the treatment group ($m = 18.95$, $sd = 3.285$) and the matched control group ($m = 18.36$, $sd = 3.276$). This difference was nearly significant at the .05 level ($t(470) = -1.947$, $p = .052$).

Table 4. Questionnaire on Collaboration Factors' t-test.

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
FACTOR1	Equal variances assumed	.030	.863	-.713	464	.476	-.27	.378	-1.011	.473
	Equal variances not assumed			-.711	453.307	.477	-.27	.378	-1.013	.475
FACTOR2	Equal variances assumed	2.988	.085	-1.541	470	.124	-.49	.319	-1.120	.135
	Equal variances not assumed			-1.523	428.910	.128	-.49	.323	-1.128	.143
FACTOR3	Equal variances assumed	1.195	.275	.187	474	.852	.05	.250	-.445	.538
	Equal variances not assumed			.186	458.869	.852	.05	.251	-.446	.540
FACTOR4	Equal variances assumed	.036	.850	-1.947	470	.052	-.59	.303	-1.184	.006
	Equal variances not assumed			-1.947	461.762	.052	-.59	.303	-1.184	.005

In looking at differences between the groups on individual questions, the one question demonstrating a significant difference ($< .05$) was number 14. This question asked, "I feel at ease to ask fellow teachers to visit my classroom and solicit their advice." (Table 5) This test resulted in $t(472) = -2.60, p = .009$.

Table 5. Questionnaire on Collaboration Items' t-test.

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
Q14	Equal variances assumed	8.498	.004	-2.607	472	.009	-.28	.107	-.487	
	Equal variances not assumed			-2.585	442.060	.010	-.28	.107	-.489	

Discussion

For successful inclusion of students with disabilities in regular education classrooms, teachers need to be prepared to meet the students' individual educational needs and they need to team with other school personnel. Project TIE had as its two main goals (a) increasing awareness, information and preparation of teachers for special educational needs, and (b) preparing teams for professional collaboration in its many forms. Formative evaluation of the project's continuing education throughout four of the project years demonstrated that refinement of content and method of presentation resulted in increasingly positive response from participants. Final evaluation focused on educator attitudes.

Results of data analyses demonstrated that in the areas of preparation and that were in the teachers' control, attitudes of TIE participants were positive. The t-tests demonstrated significant differences in attitudes toward the ability to meet the needs of included students with disabilities between TIE participants and respondents in matched non-TIE schools. Attitudes do affect performance. Positive attitudes toward Inclusion have been shown to increase the probability that included students will be successful (Cook, Tankersley, Cook, & Landrum, 2000) and that the school will successfully implement inclusive education (Salisbury, & McGregor, 2002). Project TIE at least positively affected educational personnel attitudes toward their ability to include students.

Overall, differences between the TIE participants and the matched group in teacher attitudes toward having other professional personnel working in their classrooms and observing their professional performance did not reach statistical significance. Although introduced to collaborative teaching in the TIE workshops, participants did not have the advantage of peer support and coaching in their schools. Joyce and Weil (1996) stress the importance of ongoing peer support following any introduction to new ways of teaching if implementation is to be successful. McFaul and Cooper (1984) suggested that professional etiquette in the teaching profession, a traditionally isolating career, prevents honest dialogue aimed at improving professional performance. Teachers teach alone and are very respectful of each other's right to practice to the detriment of collaborative practice.

Several weaknesses in this study should be recognized. First, there was not a pre-project survey to assess attitudes before treatment. Personnel in schools that applied to participate in the project may have had more positive attitudes toward inclusive educational practice initially than personnel in schools that chose not to participate.

Second, the evaluation plan called for different sources of data to include the following:

- Formative data evaluating the preparatory workshops (*Implemented*)
- Formative data in the form of individual inclusion student case studies (*NOT implemented*)
- Formative data in the form of TIE team activity logs (*NOT implemented*)
- Summative data comparing state statistics regarding special education student inclusion (*Not implemented*)
- Summative data comparing teacher attitudes toward Inclusion and Collaboration (*Implemented*)

Due to lack of personnel and resources, much of the original evaluation plan was never realized.

Finally, no information with regard to teaching practice and student outcomes is available. Further research could focus on the TIE teachers' implementation of the strategies and on performance of students with disabilities. Such continuing research is well beyond the resource capabilities for this completed project.

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MOVING TOWARD A CLASSROOM INCLUSION MODEL

Greyhills Academy High School (GAHS) is committed to providing a nurturing and safe environment where culturally based and academically challenging programs are utilized in providing holistic, experiential, and problem-based learning that promotes life-long learners and whose knowledge will benefit Dine, the First Nation's people, and global societies.

With these words, GAHS states its mission, its reason for existence. GAHS is a special school, serving students with special gifts and sometimes overwhelming needs. The Native American community in the Western Navajo Nation and the Hopi Nation may be impoverished financially and may lack worldly experience, but it's also very gifted with insight, intellect, and compassion. We choose to build on these strengths and to address the weaknesses within the framework provided by the United States Department of Education, the Bureau of Indian Affairs, the Arizona State Department of Education, and the Navajo Nation, but in our own unique manner, developed by our community to address the needs and desires of our community. We attempt to include all our students fully in the classroom and in extracurricular activities, no matter what their gifts or needs might be, to help them develop any special talent they may have, and help them address any deficit which might be holding them back academically or which might hinder them once they leave GAHS. With our residential program, we are able to reach many of the students on a 24-hour basis. We provide a caring family structure to many students who have never had that from their own families. No child can thrive without knowing that someone, somewhere, cares where he is, what he is doing, how he is doing, and what he feels. For some of our students, their experience at GAHS is the first time they have had such an experience.

Our Population

The Navajo Nation, as referred to by the Navajo people as "Dine' Bikeyah" (Land of the People), includes portions of Arizona, New Mexico, and Utah. The 27,000 square miles of the Navajo Nation includes all or parts of 13 counties in those states. The Arizona portion measures in excess of 11 million acres. Much of the Navajo Nation is remote and isolated with arid deserts and alpine forests that characterize the land. The Navajo Nation has the distinction of being the largest Indian tribe in the United States. According to the 2000 U.S. Census, 255,543 of the 298,197 people residing on the Navajo Nation are enrolled tribal members with the remaining being non-members who reside and work on the Navajo Nation.

Our service population also includes students from the Hopi Nation. The Navajo Nation surrounds the Hopi Nation with the western village of Moencopi bordering Tuba City. The Hopi Nation has a population of 11,156 enrolled tribal members with about 9,000 Hopi/Arizona Tewa residing on the Hopi Reservation.

GAHS is located in Tuba City on the Western portion of the Navajo Reservation in Northern Arizona and within Coconino County boundaries. Tuba City is approximately eighty miles northeast of Flagstaff.

Today, Tuba City's chapter is a local government entity of the Navajo Nation Government. As an administrative and educational center, Tuba City has developed rapidly and has been designated as a major "growth center" for the Navajo Reservation by the Navajo Nation government. (Navajo Nation Vital Records Office, 2000 U.S. Census Count)

Although the geographical area of Tuba City is limited to an area served by its existing or planned municipal infrastructure, the town serves as an economic and education center for a wider area encompassing approximately 4,400 square miles of Coconino and Navajo counties. The service area of Tuba City, as defined by the Indian Health Service (I) includes all or parts of Navajo Nation Chapters of Tuba City, Coalmine Mesa, Cameron, Bodaway/Gap, Coppermine,

LeChee, Kaibeto, and Red Lake. Adjacent to Tuba City are the Hopi villages of upper and lower Moencopi, which is approximately one mile south of Tuba City. (U.S. Indian Health Service)

The 2000 population of Tuba City is estimated at well over 12,000 people and the adjacent Moencopi villages have an estimated population of 1,200 people. The outlying area has a population of well over 7,000 people. Tuba City chapters are not exclusive members of the Navajo Tribe, but include members of other Native American tribes including non-Indians as well. (2000 Arizona Department of Commerce)

GAHS is a federal tribal grant school, which serves 440 high school students. GAHS is considered a boarding school but also serves students who are bussed in from adjoining chapters. Dormitory populations increase in winter when the roads are at their worst. The homes of some families do not have running water or electricity. Less than 200 households have telephones and there are even fewer that have home computers. Poverty is prevalent; many student's families in our school system are supported by government assistance.

Inclusion at GAHS

GAHS is moving towards a model of inclusion that meets the needs of the students in this particular region. The Exceptional Student Services (ESS) Department at GAHS, along with the support of administration, is implementing a model of inclusion that includes students in the general education setting to the maximum extent possible.

The Exceptional Education Department serves 51 of the 440 students enrolled at GAHS. Services are provided to students identified in the following categories:

- Specific Learning Disabilities (35 students being served)
- Emotional Disabilities (7 students being served)
- Speech and Language Impaired (6 students being served)
- Mild Mental Retardation (2 students being served)
- Hearing Impaired (1 student being served)

The Exceptional Student Services (ESS) Department and regular education departments (e.g. English, Science, Social Studies, Mathematics) work together to implement an inclusion model of instruction, in the delivery of educational services to students being served by the ESS department. The degree to which a student participates in a regular classroom setting is determined by their individual needs and based upon IEP goals and objective. The components of our inclusion model include are described below:

Instruction

- Redesigning instruction in all disciplines on the basis of the abilities, needs, and interests of all students.
- Varying delivery models with small group, whole group, and individual activities.
- Cross-disciplinary instruction, especially with 10th and 11th grade social studies and English courses as well as with vocational and mathematics classes.
- Collaborative instruction or team-teaching between ESS and regular education teachers in core courses and (as needed) in business and technology courses.
- Problem and project-based learning.
- Teaching reading and writing across the curriculum.
- Teaching math reasoning skills across the curriculum.
- Sustained silent reading for all students.
- Integrating Dine' language, culture, history and government into all curricular areas.
- A remedial reading intervention program entitled "Read Right."

In order to provide support for our Inclusion Model, the ESS Department serves students through a "Learning Lab" where students receive one-on-one instruction from a certified special education teacher, using the content from their regular education classes and/or study skills material (i.e. Tutorial Model). In addition, ESS

offers a “remedial intervention” class. This class is for students who are not ready for full inclusion in core classes and need direct one-on-one instruction. Instructional aides are present during these times to assist the teacher and to help with specific student needs. ESS also delivers services directly in the general education classroom. An instructional aide works with the science and English teachers to deliver services to the students in those classes when needed.

Professional Development

In order to meet the needs all of students (regular education, Limited English Proficiency, ESS, and under-performing) all instructional staff has participated in the following workshops:

- Reading across the Curriculum
- Writing across the Curriculum
- The Child Study Team
- I-Care (modified) student mentoring program
- Teaching the Learning Disabled Student
- Bi-weekly Teacher Study Groups, the focus of which has been and will continue to be the degree of implementation of instructional strategies that are presented in the staff development sessions, successful collaborative activities to share, and success stories.
- Anger and stress management in working with student aggression and disturbed behavior in the classroom and hallways
- Recognizing, understanding and helping students who have substance abuse issues
- Transition programs
- Additional training in developing reading, writing and math skills across the curriculum.
- In addition, teachers have had the opportunity to enroll in Exceptional Education Courses offered by Northern Arizona University

Vocational Education

Vocational Education at GAHS offers a wide variety of opportunities to ensure a student’s success in high school. By taking advantage of these opportunities, all students can explore career options and develop useful, life-long skills. Some of our vocational programs have been recognized statewide for innovation and outstanding student achievement. In addition, career links with community colleges (Tech Prep) and industry have allowed GAHS to offer opportunities for students to start a career for life.

All Students have access to courses and programs that help them develop the critical skills necessary for the future workplace. These include planning and organization skills, problem solving and critical thinking skills, technology capabilities, and the ability to work alone as well as in teams.

In order to be in compliance with Arizona State Graduation Requirements, a student must complete one credit of fine arts or one credit of vocational education. There are numerous vocational classes available to all students to meet this graduation requirement. Students may choose from one of the following courses:

- Business Management Technology
- Industrial Technology
- Business Information Technology Services
- Business Management Administrative Services
- Early Childhood Education
- Automotive
- Building Maintenance
- Commercial Arts
- Hospitality
- Marketing
- Radio and Television
- Welding
- Graphic Arts

As part of meeting the occupational skills training for all students, including special needs students, the vocational and ESS departments have agreed to work closely in meeting the vocational education and training needs

based on each student's IEP and Individual Vocational Education Plan (IVEP). By identifying only those program objectives/competencies that would greatly benefit the need of each ESS student; each vocational program can be tailored to meet the specific needs of lower functioning ESS students. In this manner, each student may attain optimal learning potential.

In addition, the two departments have collaborated to establish a grading system that would be advantageous to the optimal learning of ESS students. For example, if a student with a learning disability completes a program with minimal modification of coursework, then s/he could receive a grade based on the teacher's established grading system. On the other hand, if an ESS student is only able to successfully complete a lesser number of objectives/competencies during a school year, then the course work would be greatly modified and of course the grading system would reflect this adaptation, therefore a grading system of a credit or no-credit would be utilized.

Transportation and ESS students

GAHS supports transportation services for students enrolled in the school. We serve 100 percent of the students, including those in special education; inclusion applies to transportation as much as any other aspect of school life.

The GAHS transportation department's goal is to provide the most appropriate transportation services and arrangements for all students. Services for special needs students include:

- Regular transportation
- Special transportation
- Transportation services to parents who drive their children
- Transportation for curricular, co-curricular, and assessment activities
- Transportation between school and home
- Liaison services

Currently, none of our students requires special equipment on our buses. Enrollment of students with physical disabilities may require the installation of hydraulic lifts on one or more buses. However, no students with physical disabilities are attending GAHS at this time.

Intensive Residential Guidance (IRG) Program

Our school's social worker, residential director, dormitory advisors, and substance abuse counselor serve the Exceptional Child Residential (ECR). The ERC is included in the IRGP. IRGP assists students who have a variety of problems adjusting to the school and dorm programs, to other people, or who have social issues. Group counseling and other selected activities are designed to assist students with problems in becoming more productive members of the school community. The program develops target activity resources for those students who, without planned intervention, would have a difficult time in meeting the standards of the regular program.

The advisors, social worker, residential director, and ECR staff may review the student files to determine if the student meets the program criteria and make appropriate referrals to the IRG program. Students are selected for the IRG program upon identification of one or more specific criteria. Once a student is identified, the committee develops an Individual Residential Plan (IRP). The plan contains long-term goals, methods of providing services, evaluation procedures, and timelines for goal completion. Each identified student will have a plan, which specifies the identified problems that will be addressed.

Once students have been identified and placed, it is mandatory that they participate in planned meetings, individual, and group services. Behavioral issues are not an excuse to miss a pre-planned activity. Students who have unexcused absences for planned activities will meet with the residential director. Students are in the program for specific reasons and these reasons will be addressed during the meeting. Recommendations for follow-up will be made to the IRG staff.

The IRG curriculum is designed to meet the needs of the students who qualify for placement in the program. Specified services and recreational activity should support the IRG classes that will follow this curriculum. These needs are mainly social issues. Student progress reports are evaluated quarterly. The evaluation process includes a committee meeting each Quarter to determine the effectiveness of the individual plans in meeting specified goals. ERC students are evaluated according to their IEP's.

Inclusion of Traditional Dine' (Navajo) Values

In the preface to the document formulated to address systematic changes needed for Dine' education in the new millennium, the Navajo Nation and the Division of Dine' Education have acknowledged the need for developing educational programs that will enhance learning for Dine' children. It has been found that more successful educational programs are those that center on the involvement of family and community and, which support the Dine' tradition of learning and teaching. (Navajo Nation Education Standards with Navajo Specifics 2001)

The educational standards are developed to foster strong connections between post-secondary situations and the educational experiences of Dine' students. The standards are intended to instruct Dine' students about the history, language, oral and written literature, science, philosophy, and geography taught by the ancestors in order to inspire each student to exercise his or her role in society for the betterment of self, family, and community as exemplified and encompassed in the Dine' concept of "Sa'2h Naagh17 Bik'eh H0zh00n".

The ESS department has also used traditional ways of healing to help students who are in need of services. As part of the counseling portion of the IEP, several students at GAHS have consulted with a medicine man. Two of our students have actually been treated through traditional ceremonies. Incorporating traditional Dine values into the services provided to exceptional students has been particularly helpful in our Inclusion Model.

Conclusion

"In educating our students we ask "why" about some phenomena of the world which seem alien, different, and often frightening. One of the creative challenges to the Native American teaching of the sacred ways is to examine elements of the modern world that threaten a persons ability to seek life – to seek long life. After examining new philosophies and modern disciplines, methods of dealing with special educational issues in our unique rural environment can be incorporated into basic traditional foundations of teaching and learning. (Beck, Peggy)"

On entering this task, the teachers and staff at GAHS were confident that the needs of our ESS students were being met. We still think that way, but through this process we have seen that there are areas where changes need to be made and the system can be improved. Until every goal for every student is appropriate, and every goal for every student is met, our task is not complete. There is always room for improvement.

Contributions

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The Circle of Collaboration

INTRODUCTION

Heber Valley Elementary is the largest of the three elementary schools in the Wasatch County School District. The Heber Valley community is changing from an agricultural one to more of a bedroom community for Salt Lake and Utah Counties. The community is also becoming more culturally and ethnically diverse. As a result, Heber Valley Elementary has made a number of changes to support the education of students.

Our Mission at Heber Valley Elementary is to guide all students in the achievement of their individual highest potential, by providing guided and adapted instruction within the regular education classroom through a collaboration of resources.

Two movements at Heber Valley specifically support this mission statement. The first involves a move to develop an inclusive school for all students. The second is the implementation of Balance Literacy Practices to enhance the reading skills of students. A number of structures and procedures developed to support these two movements will be presented in this paper.

MOVEMENTS

The National Center on Educational Restructuring and Inclusion (NCERI) definition of an inclusive school is, "Providing to all students equitable opportunities to receive effective educational services, with the needed supplementary aids and support services, in age-appropriate classes in their neighborhood schools, in order to prepare students for productive lives as full members of society." For the past five years our Diversity Team has been working to achieve this goal in partnership with the University of Utah's School and Community Inclusion Project.

With schools moving toward a more inclusive environment, a growing need has arisen to identify instructional techniques that enable all students to be educated successfully together. Balance Literacy incorporates phonemic awareness, phonic instruction; fluency, vocabulary, and text comprehension instruction to help children successfully learn to read. It is an important component in the strategies to help children succeed at Heber Valley Elementary. Bringing Inclusion and Balance Literacy together supports a clear vision to see all students succeed at their highest potential.

CIRCLE OF COLLABORATION

Diversity Team

The Diversity Team serves to direct the collaborative process. The Diversity Team is made up of a school administrator, a teacher representative from each grade level (6 teachers), school specialists from Special Education (4 teachers), Title 1 (1 teacher), and our Literacy Curriculum Facilitator. The Diversity Team meets on the 2nd Wednesday of every month and is facilitated by an elected teacher. A needs assessment is given each year and is used to help guide the direction of the team. The following are some examples of team efforts:

- **Early Out-** An early assessment showed that our teachers needed more time for collaboration. After reviewing plans from other districts the Diversity Team proposed an early-out day. Fifteen minutes would be added on to Monday, Tuesday, Thursday and Friday's school schedule, giving one hour of time that could be taken off the Wednesday school schedule. This created an early out day for students and a solid collaboration time for teachers. After five year, Heber Valley is still the only school in the district that uses this approach for more collaboration time.
- **Literacy Block Scheduling-** With all At-risk students in the regular classroom and with the implementation of Balance Literacy, teachers needed large blocks of morning time to teach literacy and receive the needed support at the same time. After modifying the schedule over the years, each

teacher is currently receiving 1.5 hours of support from a Para-professional (funded through Sp.ed, Title 1 or ELL), and ½ hour support from a Specialist (certified teacher from Sp.ed., Title 1, or ELL), for a total of 2 hours of special support per day. The teachers have the flexibility to schedule their literacy blocks during prime learning time and receive the “needed supplementary aids and support services”.

- Curriculum Alignment and Assessment- With all At-risk students being served in the regular education classrooms, curriculum concerns became evident. Using the curriculum alignment model, each grade level team began aligning core standards to essential skills. This is an on-going process that allows teachers to become familiar with the core standards that are a high priority for their students. An assessment has been written by the grade level teams to help monitor students progress.

Literacy Curriculum Team

The Literacy Curriculum Team consists of our literacy Curriculum Facilitator, the school administrator, a teacher representative from each grade level (6 teachers), one Special Education teacher, and one Title 1 teacher. The Literacy Curriculum Team meets twice a month and is facilitated by the Literacy Curriculum Director. To help direct the implementation of Balance Literacy, a survey is given out to the teachers at the end of each school year.

The following are some examples of how our collaborative efforts brought needed change:

- Teacher on Special Assignment- To unite the school into one continuum of instruction a proposal was made to Wasatch County School District to provide Heber Valley Elementary with a Teacher on Special Assignment. This teacher would be released from their regular teaching duties to be the school Literacy Curriculum facilitator.
- School-wide Comprehensive Professional Development Plan-Under the direction of the school Literacy Facilitator and curriculum team, monthly workshops and observational opportunities have been planned. Teachers have the flexibility to choose the workshops that would best assist them in implementing or improving their teaching skills in Balance Literacy. A focus has been set in Guided Reading, Writer’s Workshop, and Reading Strategies and Comprehension.
- Para-professional Training- The Literacy Curriculum Facilitator, teachers from Special Ed., ELL, and Title 1 provide bi-monthly training for the Para-professional. The same Balanced Literacy strategies are taught, with emphasis on how our Para’s can assist teachers and ensure all At-risk students are being reached.
- Model Classroom- A model classroom that has all of the components of an Inclusive Balanced Literacy program has been established for observational opportunities. This allows teachers to observe good teaching practices without leaving the school for professional development.

Collaboration

Our “Circle of Collaborations” is constantly changing and growing. With this change and growth a sense of ownership has been built among our faculty. This ownership has empowered our teachers to take an active role in our collaboration efforts, initiating more success and change. The following are some of the things that happen during early out time.

- Grade Level Collaboration- Teachers have quality time to discuss At-risk students, prepare and adapt lessons, share ideas, and meet with specialists. The second grade team always ends their collaborations time with a “teacher share”. Each team member brings a center idea, worksheet, teaching strategy, book or adaptations that were successfully used in their classroom. The fourth grade team is holding a “Book Club” once a month. Each month they read a chapter from a professional book and discuss the contents of that chapter.
- Specialist Collaboration- Teachers from Special Education, Title 1, ELL, and the Literacy Curriculum Facilitator meet every week to discuss student services, student monitoring, programs, schedules, Para-professional training, teacher support, or curriculum concerns. With the blending of Special Education, Title 1 and ELL services this collaboration time is very important to us. To keep the communication lines between teacher and specialist open, each specialist is part of a grade level team. We monitor the grade level At-risk students, provide service, set up programs, make adaptations and attend grade level team meetings.
- School Teams Collaboration- In the beginning the Diversity Team and the Literacy Curriculum Team were the only school teams that met during our early out day. As new concerns were discussed in these

meetings other school teams were established. Discipline team was established to direct in a school-wide discipline program. Following the "Cool Kids" skill building method, developed by Susan Fister. We also have a skill building room for students that need extra help learning the "Cool Kids" procedures and skills. The A.I.M.'s team was established to help teachers with Adaptations Interventions, and Modifications for students' of concern.

Additional Activities

Other activities that have empowered teachers and developed a professional relationship among our staff members are:

- With Regular Education teachers now having support during the Literacy Block they are getting the most out of the curriculum. A united effort is underway as the teacher, the Para-professional, and the specialist join forces in teaching students.
- Teachers are going through the process of aligning the curriculum; teachers have solid knowledge of the core standards. With this knowledge and using the core testing results, teachers are directing their teaching to the strengths and weaknesses of their class.
- The Professional Development is based on the needs of the teachers. They have the flexibility to choose what they need to implement the Balance Literacy concepts in their classroom.
- The Para-professionals are receiving extensive training. Each Para works with 2 teachers in the same grade level. Depending on the needs of the grades and the Para's, training is provided accordingly. They have been trained in Balance Literacy, guided reading, Cool Kids, running records, I Can Read, sequential phonics and much, much more. With these skills they are an essential component to our teacher' classrooms.
- Each teacher has observational time during the school year if they would like it. Grade level teams go and observe various programs at work. When they return to school they debrief and take ideas back into their classrooms. Our Literacy Curriculum Facilitator is also available to go into classrooms and model a variety of strategies and concepts.

Our "Circle of Collaboration" has become UNIFIED as we empower ourselves to control our own destination.

UNITY

UNITY that is what our "Circle of Collaboration" has brought to Heber Valley. Unified in curriculum. Unified in expectations. Unified in effort. We have many success stories that have affected positive change and development in our school. Some of the positive changes and developments are:

- All Special Educations students are attending their neighborhood schools.
- 90% of our teachers have implemented guided reading in their classrooms.
- Students are involved in helping each other achieve goals through peer tutoring and cross age tutoring.
- IEP goals are being met in the regular education classrooms
- Para-professionals share a common office space.
- An extensive Guided Reading Library has been established. We have over 1.000 titles that vary from A to U. It is centrally located for easy access. Within this library we also have materials available for teachers use. Magnetic letters, magna doodles, white boards, phonic lessons, wikki sticks and tests are a few items that can be used by all.
- A one on one reading room was created for our volunteers to work with our students.
- A Parent Resource area has been added to our school library. This area has books, tapes, homework ideas, and parent tips available for checkout.
- A Math Curriculum Library has been started, but is not completed. Teachers come to the library and check out manipulative, books, games, math adaptations, etc.
- Power Hour, an early morning reading program has been provided for targeted students that are at-risk. We have 30 students attend Power Hour every day. The specialists provide this additional service along with two Para-professionals.
- With the "I Can Read" volunteer reading program, our parent volunteer hours have increased.
- Our PTA has donated money to our Guided Reading Library and to individual classroom libraries.

- A free after school program has been set up for students. The classes that are offered presently are: pottery, looming, Spanish and upper level math problems. This was set up by teachers for students who wanted to excel or be challenged by something a bit different.
- A "Celebrate Our Success" bulletin board in our faculty encourages teachers and staff to write compliments to each other and post them on the board. A small token of appreciation is given with each compliment.

Changes to the community in the Heber Valley necessitated changes in the educational programming at Heber Valley Elementary. The changes required to meet the vision of educating all students was facilitated by a "Circle of Collaboration." The circle involves Balance Literacy Programs, Diversity Teams, Grade Level Teams, Specialists Teams and others. It also involves changing the educational structures, an early out time, literacy scheduling, power hour and Para-professional training were just some of the needed pieces. The changes mentioned above bring about many new ideas and possibilities each of which can add to our "Circle of Collaboration".

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**CLASSROOMS AND CURRICULUM
COME ALIVE WITH MUSIC:
A SEQUENTIAL APPROACH OF TEACHING
MUSIC TO ELEMENTARY STUDENTS USING
DAILY ORAL MUSIC LESSONS**

INTRODUCTION

The need for a daily oral music program in the elementary classroom is as important as any other part of a student's daily curriculum. The 30 lessons that were developed in this handbook are written specifically for the classroom teacher who has a very limited background in the music skills as outlined in the Utah State Core Music Curriculum and the National Music Standards. The lessons were designed to be taught in short, daily instruction segments which would help students gain the most from music and transfer the knowledge that they have learned to other parts of the curriculum. A study was done as to the need for such lessons to be taught in the classroom with elementary students. The study showed significant improvements in the students that were taught the 30 lessons as part of their daily curriculum.

Through music, many of the other areas in the curriculum can be strengthened or reinforced. With simple lesson plans to follow which can excite and motivate student learning, the less knowledgeable teacher can feel successful. It is clear that music is an important part of a student's curriculum. Research proves that music plays an essential part in the imagining, creating, and developing of a child's thought processes. However, there is a lack of easy-to-use teacher music lessons available. With this in mind, the daily oral music lessons could be the start for all teachers to effectively teach basic music skills that will give each student a foundation on which growth can develop. The daily oral music lessons could be valuable for educators who believe and know that music plays a vital part in the lives of every student.

NATURE OF THE PROBLEM

Music has long been a universal language. It represents many cultures, the people, and the environment. Music has played a very important part in society throughout the history of mankind. Music can represent feelings, thoughts, emotions, and it has evoked deep cultural traditions and awareness throughout many countries. Music touches every human being from infancy to adulthood. The power of musical sound can be the vehicle of expression for a wide variety of emotions. Music not only moves individuals emotionally, but intellectually as well. It provides a way to imagine and create, and contributes to self-expression and creativity. It also provides for unique and distinct modes of learning and combines behaviors that promote higher order thinking skills. It can be a predictor of life's success and helps prepare students for a career. Music supports teaching discipline and commitment along the way. Plato once said, "Education in music is most sovereign because more than anything else rhythm and harmony find their way to the inmost soul and take strongest hold upon it bringing with them an imparting step if rightly trained." (Tacker, 1998, p. 62).

The value of music education in the public elementary schools is starting to gain attention in today's curriculum. Music education encourages team work and cohesiveness and definitely can provide success for some students who have difficulty with other aspects of the school curriculum. Music needs to be treated as equally important as the other academics that are taught in the classroom. Many times music is either put aside or is treated as an extra, a group time user or as a basic sing along or practice for a school program.

The State Board of Education through the Utah State Core Curriculum has mandated certain music standards to be taught at each grade level. The music core is quite complete and very sequential with the use of standards for teaching music concepts for each grade. However, lesson plans to teach these standards are not available to teachers. Often teachers must develop their own plans for teaching the music skills. The teacher who feels inadequate in music avoids teaching the skills and concentrates their efforts in academics where they feel more confident.

Sometimes the decision of what to teach during elementary music is decided by the district, or the principal. Some districts have very strict policies and provide music specialists that serve each elementary school on a weekly basis. Other districts have made music lesson plans and materials available for their teachers so that the music skills

will be taught. Some schools have principals that feel strongly about the arts, and hire teachers with strong musical backgrounds to help teach the music skills in the classrooms.

Music education should be one of the core foundations in a curriculum. The music education that a child receives today should not be left to the whim of current popular styles. A child should have the opportunity to be exposed to the skills of which music is composed. These basic music skills can help a child conceptualize numbers and their spatial relationships and become literate for life. (Shaw, 1996)

If teachers with a limited background in music were given easy lesson plans to teach, would music then receive its allotted time of ninety minutes in the curriculum? Could all public educators excite students and make them want to listen and produce all types of music if the basic music skills were adequately taught?

REVIEW OF THE LITERATURE

The classroom teacher's role in providing music instruction at the elementary level has varied considerably over the years, often times in response to major shifts in educational philosophy or practice. Prior to 1960, for example, "self-contained classrooms" and "student socialization" were centerpieces of elementary education and classroom teachers were largely or even solely responsible for music teaching and learning. With the implementation of higher standards for subject-area achievement in the 1960's, music teaching responsibility shifted from classroom teachers, who typically are very limited in their knowledge about music or music teaching methods, to music specialists. Specialists were put in charge of developing sequential curricula and providing critical music instruction to children. **Music Specialists and Classroom Teachers**

Currently, there is a movement to reexamine the elementary general music program, particularly with respect to the types of benefits that might arise from greater collaboration between music specialists and classroom teachers (Austin, 1991; Ballard, 1990). Ballard states, "the most practical and immediately feasible way of incorporating the arts into the daily curriculum is to involve the classroom teacher." (Ballard, 1990, p. 42). The reason for the rise in this movement comes from several related concerns.

First, despite professional advocacy efforts to increase the number of music specialists working in public schools, recent estimates indicate that 55% of the school districts in this country are not served by a full-time music specialist (Goodman, 1991). Ballard hypothesizes that music specialists, by their very existence, create the perception that music is not part of the elementary curricular core which, in turn, makes these positions and related programs difficult to protect in terms of a budgetary crisis. Where full-time positions for music specialists do exist in districts, many of these instructors float among several elementary schools. Instructors teach large student populations making learning the basic skills of music somewhat difficult (Ballard, 1990).

Secondly, there is a growing realization that while music specialists may be best qualified and equipped to teach for course content mastery or skill development, they are not necessarily in the best positions to influence student attitudes on a daily and individual basis (Austin, 1991). Classroom teachers, acting upon their own values and self-perceptions, may either reinforce or subvert the specialist's best efforts to promote music learning and lifelong involvement with music.

Third, there has been an emerging interest in holistic teaching and cross-curricular integration within the elementary school curriculum. These approaches in teaching, signal a need for greater cooperation between the classroom teacher and music specialist, rather than total reliance on either, in providing music instruction and related experiences to elementary school children (Ballard, 1990).

The aim of increasing classroom teachers' involvement in elementary music education poses some interesting challenges. Many classroom teachers have relinquished all responsibility for teaching music skills, using music class time for only group singing or listening time. Some teachers avoid music altogether. They use the time to teach and prepare the other core curriculum subjects that are considered more important in the core curriculum for the student. Several survey studies (Goodman, 1986; Krehbiel, 1990; Kritzmire, 1991; Price & Burnsed, 1989; Saunders & Baker, 1991) and a three-year ethnographic study (Bresler, 1993) of music instruction within the elementary school show that a majority of classroom teachers do not teach any music. Even in the lower primary grades, where teachers seem more comfortable with music, lessons teaching music skills are very sporadic. The lessons seem to serve as functions that are ancillary or antithetical to music learning. Many elementary school teachers cite heavy teaching loads and curricular pressures as reasons why they do not teach any music and can't seem to fit it into the daily schedule with other important core subjects (Bresler, 1993). Classroom teachers often rank the arts last in

importance among subject areas they are expected to teach (Krehbiel, 1990). Perhaps a central reason why classroom teachers avoid teaching music is because they may harbor negative self-perceptions regarding their ability to make music or teach music effectively. (Bresler, 1993; Krehbiel, 1990; Saunders & Baker, 1991; %ite, in Price & Burnsed, 1989).

Music Importance in the Curriculum

Many school boards are currently posing the question of what can a child learn in a music lesson that is as important as a math lesson? Why should music skills be part of the daily curriculum during the early school years? Research has shown that music is a valuable source for mental, social, and emotional learning and should be taught as any other core subject for a child to develop and succeed in life (Madsen, 1981).

Shaw explains "that when children exercise cortical neurons by listening to classical music, they are also strengthening circuits used for mathematics. Music excites the inherent brain patterns and enhances their use in complex reason tasks." (Shaw, 1996, p. 57). The study of music theory is challenging and very mathematical and gives new ways to conceptualize numbers in math with which some elementary children struggle in the first years of education. The exploration of rhythm can help some students understand fractions. Research was conducted at McGill University in Canada, where students that listened to compositions by Mozart, Bach, or Beethoven, showed much improvement in general and spatial cognitive development (Shaw, 1996).

Music and Cognitive Development

Music is credited as being a foundation upon which skills will flourish and can be the gateway to knowledge. The power of music and its relevance to the subject of history can be seen in an instrumentation or mood of a piece of music.

A certain composer's work or song might communicate more clearly than words, the feeling of the era being studied. It can be used as an integral part of teaching certain events of our nation's history.

Broudy states, "There is an intimate connection between imagination, intellect, and music education." (Broudy, 1979) The value of music education is based on its relationship to the imagination and other functions of the mind. In teaching concepts, music creates an image, which in turn leads to understanding of the concept. Brain research shows that music activities develop intellect. The immature brain develops intellectual capacity when it participates in music activities. A music skills integrated curriculum leads the student to cognitive development (Sinatra, 1986). There are many research studies that show a connection between music education and reinforcement for academic tasks (Madsen, 1981).

Benefits of Performing Music

Students should be involved in performing the arts, which train the brain in aesthetic literacy. Such activities develop perceptual, imaginative, and visual abilities. Since the immature brain is dependent upon sensory stimulation for normal growth, curriculum must be motivational, exciting, and pleasure bearing in order to be retained by the immature brain. The immature brain develops intellectual capacity when a child participates in music activities. For example, music experience aids in developing language (Shaw, 1996).

Personal expression is encouraged through learning musical skills and performing. This develops flexible and fluent thinking abilities as well as the skill of close scrutiny and careful evaluation. Processes of thought in learning are characterized by a highly creative aspect. Music provides ways for aiding and increasing learning at various levels. Music experience builds confidence since they are activities which allow the student to become "in charge" to make decisions based on his/her own thoughts, insights, knowledge and judgments. (Oklahoma State Department of Education, 1980)

Music Enhancing Reading and Language Abilities

Pre-language auditory training can only be done through music. Discriminations between sounds, learned through listening to music, is required to achieve in spelling lessons. Eye-hand coordination needed to learn to write can be developed by learning to play an instrument (Wishey, 1980). Research also indicates that reading music can improve reading language abilities in slow young learners. The same skills are needed for reading words. Music has been shown to be such an effective component of reading instruction that teachers of reading are now being urged to become competent instructors of music in their reading classes (Tucker, 1981).

As the literature clearly points out, it would seem very important to include music education along with the other 3-R's in the educational system. One without the other is truly a loss, and a disadvantage for the young and future leaders, inventors, men, and women in our society.

PURPOSE AND OBJECTIVES

The Utah State Core Music Curriculum lists basic skills and music knowledge for each grade level. All of the music skills in the State Music Core are sequentially built on one another throughout K-6th grade. Many classical composers and their compositions are also introduced to help demonstrate a music element or to provide historical knowledge about the music. Many of these skills are not always taught because of teachers' lack of knowledge in the music content, time constraint, or inadequate lessons.

The purpose of this Master's project was to enhance the State Core Music Curriculum for fourth grade by creating 30 daily oral music lessons. Four major areas have been addressed.

1. Music is a vital core subject in a child's curriculum. It is part of their environment and can strengthen and support the other subjects taught.
2. Elementary teachers of little or no music background can teach the lessons with success for student growth.
3. Daily oral music makes it possible for teachers to teach within the ninety minutes allotted for the teaching of music skills in the classroom.
4. The lessons were written to enhance the four basic standards of the State Core Music Curriculum, which are singing, listening, creating, and playing.

These lessons were taught within a fifteen to twenty minute time frame each day for 30 days. They were designed to help teachers more fully meet the State Core Music curriculum guidelines in the fourth grade. The lessons are flexible, concise, and easy for the teacher to use in teaching music successfully to their students.

METHODOLOGY: PROCEDURES

The elementary school in which the study was conducted, is in the western boundaries of a Utah school district. The school is located in a rural setting mixed with a small suburban community. The school building was designed to facilitate team teaching. Each grade has rooms that are organized in a three pod design. Each teacher has his/her own room with sliding curtains to open up and make it possible to team teach certain subjects during the day. One of the teachers in this setting was considered to be the music teacher with support from the other two teachers for classroom manageability during the music lessons. Most of the music was taught solely by one teacher. The other two teachers felt inadequate in the music field and lacked the expertise to teach music to the students in the fourth grade.

A heterogeneous class of twenty-six fourth grade students were taught the daily oral music lessons. There was very little cultural diversity among the students in the school and the socioeconomic background of most of the students was relatively the same.

For the development of daily oral music lessons, the State Core Music Standards were used and the written lessons were based on these standards. The lessons were taught at the beginning of each day. The lessons were taught in a sequential manner.

During each lesson a music element was reviewed and a new element was taught. The lessons built upon the skills that were taught the day before.

The daily oral music lessons were organized to support the following Utah Music Component Core Standards-1510-1540 (See Appendix A for complete Est of standards). The materials to teach the standards for the daily oral music lessons were collected from various music books including the 1988 Silver-Burdett & Ginn Music series. The lessons were developed to teach rhythm, melody, notation, musical terminology, key feeling, composers, and musical instruments.

Evaluation for the daily oral music lessons were formulated by using the following methods.

- I. Students in the author's homeroom class were taught 30 daily oral music lessons for 30 consecutive days. The author of the daily music lessons was the music teacher for all three fourth grade classes. The author continued to teach music to all three fourth grade classes once each week for forty minutes.
2. All fourth grade students were given a teacher developed pretest to assess the students' knowledge of the basic music skills. The test consisted of twenty-six multiple-choice questions on the elements of music. Individual student percentages for the pretest were tabulated, graphed, and reported. (See Appendix Q)
3. After the daily music lessons were taught, a posttest was given to the students in the three fourth grade classes. The posttest was evaluated, and individual student percentages on the posttest were tabulated, graphed, and reported. The results were used to improve the quality, usability, and efficacy of the daily oral music lessons. (See Appendix Q)
4. Results of the study, and the written daily music lessons will be shared with other districts' teachers and administrators at a future date.
5. A copy of the written daily music lesson plans is included in the appendixes of the final master's project document.

FINDINGS AND DISCUSSION

The purpose of this project was to create music lessons to assist the teacher with a limited music background, to successfully teach the basic essentials of music as part of the daily curriculum for a fourth grade student. The lessons, were designed to support the Utah Music Core Curriculum, and were created in a very flexible, easy, format for teachers to use in their curriculum.

A pretest of basic music elements/skills was given to all students in the fourth grade. Beginning in February 2001, one classroom of students were taught the 30 daily oral music lessons each day for 30 days. The other classes were taught the regular music program each week. After the lessons were taught, a posttest was given to all students in the fourth grade, to determine if any growth took place. Success of the project was judged by student improvement in Group A compared to the students in Group B and Group C who were taught the regular music program.

When the pretest was given it was even more revealing than the author had expected. Most of the fourth grade students had a very limited basic music skill knowledge, the only exception were those students who were taking private music lessons. The pretest scores of all the groups ranged from 15 to 88 percent showing that most of the students were considerably low in music skills. Only two or three students scored higher than the others. This could be attributed to the fact that they were taking music lessons. (See Appendix D)

After the pretests and posttests were given to all fourth grade students, the percentage of growth for both Groups B and C ranged from 1 to 4 percent while Group A attained 17 percent growth in knowledge of basic music skills through daily oral music lessons. (See Appendix D)

Success of this project was judged primarily by the student growth who were taught the music lessons compared to the other two groups that did not get the lessons in music. Many of the students who were taught the music lessons were excited to have music each day and some even requested learning more about music later in the day. Students in Group A became so involved in music that during recess time they would be out practicing rhythm chants while playing jump rope or playing basketball. Many students were disappointed when the author finished teaching the lessons and they wanted to continue on each day having music as part of their daily curriculum. It was great to see them so thrilled about music and how fun music can be in all areas of their lives. Many of the other fourth grade students who were not taught the lessons started becoming very interested in music by listening to the Group A students talk about how fun music can be. Many positive comments that were made by the students who were involved with the daily oral music lessons. They included: (a) "I like learning about music each day," (b) "Is it music time yet?" (c) "Music is fun and I like how we can do it with our math," (d) "I like learning about the composers, especially Mozart," (e) "Music basketball is cool, I know all kinds of notes now," (f) "I like making up rhythm patterns that we learned in music." (g) "I have learned a lot in music and like it."

From the beginning of teaching the music lessons, the students were interested but as the lessons progressed the motivation and interest increased. The students were very surprised how music can enhance their learning in some

of the other areas of their curriculum, such as math and reading. The students couldn't believe that learning about music could be so much fun and they were excited to go home each day and tell their parents about the new music skills they were learning.

Positive feedback was also heard from the parents of the students who were being taught the music skills each day, and they stated that they would like to see more music lessons taught in the classroom by the future teachers of their children.

The fourth grade teachers of Groups B and C were also interested in the daily oral music lessons. One teacher stated, "I wished my students were taught the lessons, especially after watching the excitement that Group A exhibited after learning a new skill in music." "I would like to try and teach some of the lessons to my students as well." Another comment was made by the teacher of Group C who said, "I think I could have some great success in teaching music with these lessons."

RECOMMENDATIONS AND CONCLUSIONS

Based on the findings and results of the music pre and posttest and student and parental comments, the author designed music lessons that will continue to be taught in the fourth grade. Other teachers, especially the teachers of this author's grade have expressed a great interest in teaching the lessons. The teachers felt they could be successful teaching music with the daily oral music lessons because the format is specifically designed for the teacher with a limited musical background.

As author of the music lessons there are four areas of personal satisfaction and pleasure with the outcome of this project. They include: (a) knowing that there is a definite need for music skills to be taught in the classroom; (b) students were excited to learn about music and yearned for the opportunity to learn more; (c) knowing that teachers with a limited background in music can incorporate the lessons into their classroom; (d) and, positive feedback from parents stating the desire of more basic music skills to be taught in the classroom.

In conclusion, the need for teaching the basic music skills in the classroom is evident through the results and findings of this project. Through music, many of the other areas in the curriculum can be strengthened or reinforced. Music can be taught in a very simple fashion by teachers who feel inadequate in the content. With simple lesson plans to follow which can excite and motivate student learning the less knowledgeable teacher can feel successful. It is clear that music is an important part of a student's curriculum. However, there is a lack of easy-to-use teacher music lessons available. With this in mind, the daily oral music lessons could be the start for all teachers to effectively teach basic music skills to their students.

It is evident that students need more music instruction in their curriculum other than just singing time, and that they will enjoy learning about the different areas of music. The Utah Music Core Curriculum was created to be a part of the curriculum along with math, reading, science, etc. With daily oral music lessons, teachers can begin to teach the beginnings of basic music skills that give each child a foundation on which growth can develop.

With the growth that was seen in music by Group A in just a very short time, how would the growth of a student's music abilities be if they were taught everyday throughout the school year? It is something for teachers to consider when planning their daily curriculum.

As a result of this project the author will be sharing the daily oral music lessons with other district teachers. The author feels that the daily oral music lessons could be valuable for educators who believe and know that music plays a vital part in the lives of every student.

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DOING PROFESSIONAL DEVELOPMENT (PD) RIGHT... AND MAKING A DIFFERENCE IN LEARNING

Purpose

This presentation will describe the results of a three-year study "doing professional development (PD) right...and making a difference in learning." Educators throughout the Chinook's Edge School Division participated in the Division's Active Learning Project. The data results will highlight the acquired learning of 65 educators who participated in a three year PD program (Cooperative Learning, Johnson and Johnson, 1998) in rural, central Alberta, Canada. The trainings occurred between the summer of 2000 and fall of 2002 and continues today with on-going follow-up training and on-site coaching.

Background: Community and Demographics

Chinook's Edge School Division (CESD) #73 central office is located in Innisfail, Alberta, Canada [http://chinooksedge.ab.ca]. The Innisfail "in-town" population is 6958; the total educational community service region of 15,500 [possible] students covers 3,075 square miles. The actual number of students receiving instruction in this educational region is 11,294 students; they are served in 39 schools and 2 special needs schools. Seven hundred and fifteen teachers and approximately 825 support staff support the students' learning in this school division.

This educational community includes eight towns, five villages/hamlets, three districts, and three Hutterite Colonies. The collective population of this rolling farmland community in 2001 was 64,581...and growing. Agriculture, oil production, and farming are the primary businesses in this part of Alberta. Calgary is approximately one hour and fifteen minutes due south of Innisfail; Edmonton is approximately two and a half hours due north. Looking west from Innisfail one can clearly see the perpetual snow capped Canadian Rockies; facing due east, the rolling farmland flattens out into prairie all the way to Saskatchewan and beyond. This is the land of serious Canadian hockey.

Background: Research Implications

Professional development is an intentional, conscious, and critical element in the overall plan of "providing students with the opportunity to obtain the academic, personal, and teamwork skills necessary for life-long learning" (CESD Mission Statement, 2002-2003). For students to acquire, develop, and mature in the pursuit of life-long learning, it is a belief across the Division that to genuinely address CESD's Mission, teaching and support staffs must frequently demonstrate and model life-long learning for their students. To enhance this intentional division outcome, CESD applied for an Alberta Learning provincial grant that provided professional development funds for on-going Active Learning professional development actions (e.g. training, on-going follow-up training, and on-site coaching).

Specific teaching and learning outcomes like action research, addressing individual student learning styles through varied teaching approaches (e.g. Cooperative Learning, Multiple Intelligences, etc.) and developing/refining professional learning communities (DuFour, 2003) were deemed integral elements of addressing the Division's Mission Statement.

Educational consultants (e.g. classroom teachers) seconded from within the Division were partnered with outside consultants who had training experiences in educational systems change and specific teaching models that addressed active learning. Intentionally selected and well-researched tools, strategies, and learnings were reviewed and applied throughout this professional development program. Examples of these included the following:

1. the application of the Cooperative Learning (CL) elements as a primary active learning teaching strategy defined by Johnson and Johnson (1998) to school teams (Little, 1982; Joyce and Showers, 1988) that participated in the training, follow-up team meetings (Darling-Hammond, 1999; Brookfield and Preskill, 1999) and coaching (Costa and Garmston, 1994; Beerer, 2002; & Auten, Berry, Mullen, and Cochran, 2002);
2. the thoughtful application of adult learning insights (National Center for Research in Vocational Education, 1987);
3. the use of evaluation data analysis from participants' remarks noting what was learned and identifying needs for additional on-going learning and support (Renyi, 1996; Comings, Cuban, Parrella, & Soricone, 2002; & Sparks, 2003); and
4. the intentional use of student learning data "back in the classroom" as a primary measure of the initial PD investment as well as an on-going needs assessment for further PD investments (Renyi, 1996).

Active Learning Professional Development Project

As a constant referent for this project, the PD planners frequently recalled and reflected upon the following quote from John Cotton Dana: "For those who dare to teach must never cease to learn." This encouragement was intended to strengthen the educators learning efforts with a view of making a difference for the students. This mind set according to the PD trainers, facilitators, and coaches served the PD process very well. Likewise, evaluation responses by the participants suggest that Dana's insight was also useful.

Sixty-five educators (elementary, middle school, and high school teachers; school principals, and central office administrators) engaged in at least one Cooperative Learning "brown book" training. During Training # 2, three educators who participated in Training # 1 enrolled for the second training as well. Likewise in Training # 3, two educators from Training # 2 enrolled for the third training. These unanticipated behaviors by the "repeaters" had an added unexpected value for "new" brown bookers. The CL presentation team really enjoyed the views and experiences these repeaters shared throughout their second learning opportunities.

The outcome of this basic CL course was intended to define, experience, practice, and apply the elements of Cooperative Learning as an active learning teaching strategy. A "brown book" course included the following elements: 5 days of training for school teams conducted in the summer with scheduled follow-up training sessions offered throughout the following school year. Coaching mentors trained in Cooperative Learning and co-presented in the "brown book" summer course, were seconded from their teaching assignments and traveled throughout the division to observe, discuss, and conduct model beginning Cooperative Learning lessons. As a result of the data analysis of the first 5-day CL training, presentation changes were made in the remaining CL trainings. Indeed, by the third CL training, the timeframe was altered from 5 full days to 3 full days.

Aligned with the educators' development of CL as an active learning teaching strategy, the application of the CL elements was deliberately infused into the development of the school teams as a support network for each other once school started. Johnson and Johnson (1994, p. 3:4 - 3.5) report that "social interdependence is a generic human phenomenon that affects many different outcomes simultaneously...intrinsic motivation, transfer of training and learning, social competencies, etc....and these numerous outcomes may be subsumed within three broad categories: effort to achieve, positive interpersonal relationships, and psychological health."

The PD planners viewed this team support network as a necessity to increase transference of what was learned in the course back to the teachers' classrooms. Furthermore, the integration of the school team network plus the on-going follow-up training and planned on-site coaching was identified by the Division PD planners as essential elements of the Active Learning project to address the Division's Mission.

Methodology

Between August 2000 and November 2002, 65 CESD educators met in Innisfail, Alberta, Canada to actively learn about Cooperative Learning. Three CL trainers, one outside consultant and two classroom teachers seconded from the Division (the designated Division trainers, facilitators, and coaches), provided the CL "brown book" basic course of instruction. Lectures, small group instruction, paired reading assignments, demonstration lessons, CL videotapes demonstrating lessons, presenters CL demonstration lessons, and personal testimonies by CL practioners within the Division and from surrounding school divisions constituted the first third (2 days) of the training.

The second third (1 day) of the training involved the development of school teams as they practiced their CL skills, wrote CL lessons, and initiated discussions of "how are we going to pull this off in our classrooms and school this year?" This time was devoted to the critical elements of capacity building and sustainability in order to guide the school teams as they began to plan for implementing CL in their schools and classrooms. To increase the likelihood that what was being learned "here" would transfer to "there", attention was focused upon the participants' perceptions of their learning. This focus was guided by Schunk and Zimmerman's (1998, p. 230) idea that "ideally, self-reflective practice allows students [adult learners] to assess their learning progress and the effectiveness of strategies, alter their approach as needed, and make adjustments to environmental and social factors to establish a setting highly conducive to learning."

The outside CL consultant also applied this view to the coaching provided to the Division's two CL trainers/coaches/mentors. This model was purposeful for two specific reasons: first, to facilitate the CL content and coaching skills learning for the Division's CL trainers/coaches, and secondly to encourage the Division's coaches to actively apply this "self reflective practice" viewpoint to the CL participants in the field.

The final third (1 day) of the training was devoted to mixing and matching educators across school teams with like interests/responsibilities in grade levels (small groups of grade 3 teachers) or content areas (all middle school science and math teachers). The final half-day, Friday afternoon, was devoted to meeting with the Division CL coaches to calendar future on-going training days and on-site coaching appointments. Having set dates with email reminders CL "homework" (read a chapter in the "brown book" and bring your questions, bring a learning experience you've had while preparing to teach a CL lesson, or an experience you had with one of your students who participated in a CL lesson, etc.).

Results of the basic CL training, the on-going follow-up training, and on-site coaching were captured by a survey instrument using Likert Scale measured responses to the following three questions:

1. this session will be useful to me in my efforts to insure high levels of student learning;
2. I will be able to do my work better as a result of this session; and
3. this session was well presented and well organized.

The Likert Scale was measured according to the following:
strongly agree agree disagree strongly disagree no comment

There were three open-ended questions asked of the participants as well and they included the following:

1. I need more of:
2. I need less of:
3. The [perceived] impact on student learning in my classroom by my participation [in the "brown book"

training, on-going follow-up training, and on-site coaching] will be:

Results: CL "brown book" Training Totals (#1 + #2 + #3) [N = 65].

Sixty-five Chinook's Edge School Division educators (general and special education in grade levels of K - 12, school principals, and central office administrators) participated in a three-year Active Learning Project funded by an Alberta Learning grant. The grant supported summer training stipends for the participants, purchase of CL

“brown books”, funding for substitute teachers throughout the school year to support Active Learning educators to attend on-going follow up training, and the cost reimbursement for the outside consultant who provided the “brown book” training, consulted with the Division CL coaches, conducted three annual follow-up visits to meet with CL educators, and assisted in the planning of the CL Active Learning Project.

CL Active Learning data and corresponding data analysis is based upon the responses of the total number of educators who participated in the 3 CL trainings. Each of the trainings occurred approximately a year apart from each other starting with Training #1 in August 2000, Training #2 in August 2001, and Training #3 in November 2002. The resulting data set consists of all educators’ responses to a Likert Scale system.

1. this session will be useful to me... insure high levels of student learning.
Strongly Agree – 57 Agree – 8 [No further responses]
2. I will be able to do my work better as a result of this session.
Strongly Agree – 50 Agree – 15 [No further responses]
3. this session was well presented and well organized.
Strongly Agree – 57 Agree – 8 [No further responses]

Results: Common Themes in CL Training Responses

The resulting data analysis for the three open ended statements is presented using a common themes approach for each training session. The theme for each session model is presented in order to take notice of the shift of themes across the three training groups. [Note: Each participant had equal access to respond to the 3 open ended statements. This was a confidential and voluntary evaluation survey. Of the possible 71 educators who participated in the CL trainings, 65 responded to the evaluation survey for a response rate of 92%.]

Training # 1 (N = 31)

I need more of...(27 statements).

More examples of CL sample lessons
Coaching on site to include observing colleagues use CL
Refresher/touch base sessions
4 statements re: need time to...plan, practice, think about
One participant reported...”support systems in place - well done!”

I need less of...(5 statements).

Tendency to use jargon....the bone of educational lectures
Room Noise - training took place in HS cafeteria with tables and chairs...high ceilings with echo effect
4 days of training is plenty
One participant reported...”negative colleagues.”

The [perceived] impact on student learning in my classroom by my participation [in the “brown book” training, on-going follow-up training, and on-site coaching] will be...(27 statements).

More active learning by my students (7 statements)
Development of social skills (8 statements)
Refine my teaching skills
Good getting started ideas
“Hopefully a greater student ‘learning +’ and less teacher ‘teaching’”

Training # 2 (N = 20)

I need more of...(15 statements).

Time to practice, meet with colleagues, process experience, to read, to plan with grade level colleagues

One participant reported..."the grade level collaboration was really appreciated"

I need less of...(4 statements).

cookies and too much sitting

The [perceived] impact on student learning in my classroom by my participation [in the "brown book" training, on-going follow-up training, and on-site coaching]

will be...(20 statements).

students owning more responsibility for their own learning

impact upon caring environment in the classroom

increase in social skills of the students

One participant reported..."this year's session was so excellent because we got to plan with school teams and grade teams! Thanks so much!"

Training # 3 (N = 12)

I need more of...(12 statements)

Collaboration and observations of CL team members

I need ideas for different subjects

More colleagues in my school to be trained in CL

One participant reported..."This type of accessible PD which covers the costs and subbing. More importantly the follow-up sessions planned are key.

I need less of...(1 statement)

"negative comments from "them" about values in cooperative, active learning."

The [perceived] impact on student learning in my classroom by my participation [in the "brown book" training, on-going follow-up training, and on-site coaching]

will be...(12 statements)

use of T charts so students can be more accountable

continue to use CL

greater commitment and more involvement of staff in teamwork

One participant reported..."I think I finally found a way to effectively help kids who are struggling and challenge those who need it."

Results: Common Themes in CL Follow-Up/On-Going Training - Likert Scale

The resulting data analysis for the Follow-Up/On-Going Training will be summarized as one total data set covering all three CL trainings. Between August 2000 and November 2002, there is a recorded total of 10 Follow-Up/On-Going Training sessions. Breakout numbers for this CL Active Learning Project includes the following:

1. largest meeting was in November 2000 and included 28 educators
2. smallest meeting was in November 2002 (a week prior to Training # 3) and included 6 educators.
3. gross total number of educators attending the Follow-Up/On-Going training included 183 educators (this total does include duplicated educators who attended more than one follow up session).
4. of the 183 possible responses to the Likert Scale across the 10 sessions, all responses fell within the Strongly Agree or Agree categories.

Results: Common Themes in CL Follow-Up/On-Going Training - Open Ended

This data is a general summation of open ended question # 3, The [perceived] impact on student learning in my classroom by my participation [in the "brown book" training, on-going follow-up training, and on-site coaching] will be...(149 statements) based upon the top three apparent themes.

Need more CL ideas and activities AND learned more by attending the meeting.

Specific CL applications to content and courses.

Learning CL applications about literacy circles, use of manipulatives through CL, fine tune my teaching using CL better, and fine tune base groups).

Time together to talk, discuss, resolve questions and needs for clarification.

One participant reported..."These [follow-up/on-going] sessions are sustaining my interest in CL. Now that I have found a study buddy to dialogue with on a regular basis, I feel better about trying CL in my class."

Findings

The purpose of the Chinook's Edge School Division Project in Active Learning Project was to develop the Active Learning professional knowledge and skills of those educators who attended the CL "brown book" course. This is a work in progress. Clearly progress is being made as reported by the 65 educators who engaged in the CL training sessions and reported out what they learned, what was working for them, and what wasn't. The ongoing result of this project, to affect the Division's Mission of "provide students with the opportunity to obtain the academic, personal, and teamwork skills necessary for life-long learning" (CESD Mission Statement) continues to build into the future. Data is still being collected regarding the actual impact upon the students' who receive instruction from CL trained/coached educators. Likewise, the outside CL consultant will be visiting CL educators in March 2003 for additional coaching and modeling of CL lessons.

Additional learnings about "doing PD right" through the use of on-going training with follow up sessions to share ideas, resolve questions, and build teamwork alliances across grade and content areas appears to be making a serious contribution to many educators across the Division. The intentional and conscious decision by the Division's PD Planners to second classroom teachers and prepare them for training, coaching, and mentoring responsibilities; the commitment by the Division to apply for an Alberta Learning PD Grant that funds training, substitute teachers covering classes, and the purchase of training and learning materials, demonstrates to the Division educators and staff, the students, the students' families, and the community as a whole that investing in PD makes a difference inside the professional learning community as well as outside.

Knowing this, the PD Planners for the CL Active Learning Project agree with Dana's remark, "For those who dare to teach must never cease to learn." Perhaps the very process of learning, especially from and with each other, fortifies the teaching spirit and soul in such a way that surviving in rural schools could be less of an issue than many of us may imagine it to be. Is it worth pursuing to learn this? We think so!

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SO WHAT IF EDUCATION SURVIVES!
–WHO CARES AND WHO SHOULD

Introduction

Schools in rural areas and small towns face difficult challenges in serving the needs of children and education. Historically, rural schools have offered unique benefits and attributes – for educators, students and communities. Rural and small town schools including higher education institutions in rural areas have pioneered many successful education reform tools still in widespread use today. Tools such as peer assistance, multi-grade classrooms, block scheduling, mentoring projects, site based management, and cooperative learning.

The difficulties of high-poverty, low-achieving urban schools in attracting and retaining highly qualified teachers are well-documented, but less attention has been focused on the struggles faced by rural school districts in achieving the same goal. “Low salaries, aging school buildings and limited opportunities for professional development are just a few of the reasons that teachers are discouraged from working in rural school districts.” “Rural school districts are going to have just as much difficulty as their urban counterparts placing highly qualified educators in every classroom by 2006.”(Houston, P., 2002).

The success of rural education is linked with what makes rural and small America unique. Rural schools serve over 40 percent of our nation’s students, but receive only 22 percent of federal education funding (NEA, 2002). The size of the community contributes to the challenges and yet serves as a strength among rural schools, educators, parents and communities.

Rural communities depend on their schools to serve many functions beyond the primary mission of educating children. Rural schools are often the single employer in their area and rural schools serve as the social, recreational and cultural foundation of their community. Many rural school districts are under funded and some lack a steady stream of financial support. Moreover, they are disadvantaged by size as well as geography. For example, when rural districts apply for grants, the resulting funds are based on the number of students which is often too small to accomplish the purpose of the grant.

Rural educators also serve many roles in their communities and face many challenges. Some of these being lower salaries and benefits, lack of access to professional development opportunities, professional isolation, preparation for multiple subjects and grade levels, multiple extracurricular duties, and lack of understanding about special needs of the students.

Who Cares and Who Should

“Children are our most precious resource”. “Children can’t wait”. “It takes a village to raise a child and a child to raise a village”. Each of these statements as well as other documentation and research contributed to the *No Child Left Behind Act* signed by President Bush in January 2002. This Act is the most sweeping reform of the elementary and secondary education act (ESEA) since 1965 when ESEA was enacted. It redefines the federal role in K-12 education and will help close the achievement gap between disadvantaged and minority students and their peers as well as build interconnections between learning in the early years and life long learning.

The Act is based on four basic principles: stronger accountability for results, increased flexibility and local control, expanded options for parents, and an emphasis on teaching methods that have been proven to work. This Act offers individual states greater “flexibility for accountability” through funding for innovation in educational programs from elementary schools all the way through post-baccalaureate (www.ed.gov/offices/OESE.esea/p.1).

Chadron State College is best known for teacher education and the high quality of educators who enter the teaching profession as a result of the undergraduate education received at Chadron State. In an effort to support the goals of *No Child Left Behind*, Chadron State College is in a unique position to offer a substantial impact to the educational outcomes proposed by creating a more integrated approach in methods of teaching.

Most Americans think education begins at age 5 with kindergarten. But research tells us that children are really learning from the moment they are born. For millions of youngsters, the reality is that their early learning is a joint enterprise between parents, early childhood educators, and their environment. The impact of that learning filters into the later years of school and lifestyle commitments as they move into the adult stage of life.

Today, 11.9 million children young than 5 in the United States or about six in 10 spend part of their waking hours in the care of people other than parents: relatives, caregivers operating out of their homes, workers in child care center, Head Start staff members, and teachers in state-financed pre-kindergartens among them. The quality of the early care and education that young children receive in such settings sets the tenor of their days and lays the building blocks for future academic success (Children's Defense Fund, 2000).

Likewise, nationwide some 2.2 million teachers will be needed in the next 10 years because of attrition and retirement and increased student enrollment. Almost 40 percent of Nebraska teachers will be eligible for retirement in the next 10 years, according to a report prepared by staff of the Legislative Fiscal Office and the Legislature's Revenue Committee.

This is happening at a time when the number of teachers college graduates has declined 17.5 percent at the University of Nebraska campuses and 12.3 percent at state college campuses. The number of teachers graduating from private institutions in the state of Nebraska actually increased 34.5 percent, but those schools trained just less than 30 percent of the state's teaching graduates in 1999 (Fulwider, 2000). Only 10 percent of current high school graduates want to pursue a career in education (ACT, 2000). In urban districts, 50 percent of new teachers leave the profession during their first teaching and in suburban and rural districts 30-40 percent flee the profession during two years. An additional concern for Nebraska is the 10.2 percent decline in male teachers as well as the quality of teachers being produced in higher education settings (U.S. Census, 2000; NEA, 2003).

The Organization for Quality Teachers report that less than 50 percent of all graduates of Nebraska teachers' colleges stay and teach public schools. Many leave to teach in other higher paying states, and other s opt for lucrative professions. The January, 2000, Education Week reports that "less graduates who are eligible for certification ever take teaching jobs."

Nebraska ranks 39th in the nation in total average teacher compensation (salary benefits, social security and retirement, not health insurance) (2000 AFT survey). Nebraska ranks 45th in the nation in the average salary for teachers \$33,836, and Nebraska ranks 45th in beginning teacher salaries: \$21,949 vs. \$25,735 (NEA, 2003).

A historic turnover in the teaching profession is on the way. More than a million veteran teachers are nearing retirement. America will need two million new teachers in the next decade, and Nebraska will need 8,272 in the next 10 years (Filwider, 2000). The result is a high demand for new college graduates with teaching degrees in this era. Fewer young people are attracted to teaching as a career, in part because of salaries, safe working conditions, lack of respect and inadequate support. Many who earn a teaching degree never teach. Indeed, in Nebraska colleges graduated 1,537 teaching degreed students. But only 527 accepted teaching jobs in Nebraska (NEA, 2003). The remainder took out-of-state teaching jobs or joined the private sector where the pay is much better. So what, who cares and who should?

Impact of Teacher Shortage

Studies conclude that early childhood education and quality education at all levels of learning do make a difference (Education Week, pg. 8). The issue of the quality of teaching has taken center stage in education discussions throughout the country. A growing body of evidence confirms what common sense has suggested all along: Good teaching is a make-or-break factor in how well students learn.

The focus on quality, however, has run smack into the reality of a growing shortage of well-qualified teachers. To a large extent, that shortage is a problem of supply, demand and distribution. Teacher preparation programs may produce a sufficient quantity of graduates, but many of these graduates do not go into teaching, and the attrition rate of those who do is high. The result is there are not enough good teachers in the nation's classrooms, especially in areas of rapid population growth, hard-to-staff schools and high demand subjects such as mathematics, science, bilingual and special education.

A growing number of states including Nebraska and districts are trying various strategies to address these problems. Unfortunately, these efforts are not always guided by reliable information. There are a few strategies that when properly conceived and implemented, seem undeniably effective. Many other strategies, however, lack both proven effectiveness and widespread acceptance in spite of the vigorous defense of their proponents.

The impact of a shortage of teachers includes larger classrooms, less personal one-on-one attention, more work for already overloaded teachers, need for more support such as paraprofessionals that may or may not be educationally prepared, concern for children with special needs or gifted and talented, more behavior problems, and ultimately, a less than quality educational experience to prepare children for the today let alone the future.

A critical shortage of teachers for 2002-03 has been reported by National Education Association for the following areas: emotionally, mentally and physically handicapped; speech and language impaired, English for speakers of other languages, visually impaired, Family and Consumer Sciences, Industrial Arts/Technology, mathematics, science and early childhood education.

Demographics of Nebraska and Chadron State College

Nebraska covers 76,872 miles with a per person capita of 22.3 percent.. In the 2001 census, there were 1,713,235 people showing a .1 percent increase since 2000. Twenty six percent of the population is under 18 while 13.6 percent are over 65. Over half of the population is female and 89.6 percent are white with growing populations of Black, Hispanic, Asian and Latino populations in recent years. Nebraska has the larger two parent working households in the nation and a large percentage of persons with disabilities per capita of population. The per capita income for 2001 was \$20,234 with 9.7 percent of the population below poverty. Agriculture remains the predominant income while non-farm is growing by 25 percent (U.S. Census, 2002).

Chadron State College is located in western Nebraska approximately 825 miles from the capital. The service region for the campus is a 250 mile radius reaching into South Dakota, Wyoming and Colorado. Approximately 80 percent of the students who graduate from CSC stay in the region and come from primarily white, rural families.

Strategies for Recruiting Teachers

The issue of teacher recruitment has several dimensions. Recruitment itself can focus on attracting people into the teaching profession, in general, or into positions in particular districts and schools. States and districts employ various strategies to accomplish these objectives, including pre-college orientation and internship opportunities, college scholarship and loan-forgiveness programs, and salary or bonus incentives for teachers.

In addition to actual recruitment efforts, experts believe a number of other factors affect the ability of the teaching profession to attract candidates and of schools and districts to attract teachers. Potential candidates' perceptions of teaching -- including their expected job satisfaction -- are held as important, especially in comparison with their perceptions of other professions. Comparative starting salaries repeatedly are cited as key factors, as are expected working conditions: school environment, interaction with and support from colleagues and school leaders, workload, lack of respect and appreciation, and career growth opportunities.

Hiring practices are identified as another important factor in teacher recruitment. There are many stories of teachers choosing one district over another because of differences in the efficiency and friendliness of hiring practices or because of differences in districts' policies concerning out-of-field teaching. Likewise, stories abound of frustration among younger teachers in districts where rigid seniority systems make it difficult for younger teachers to find satisfactory job placements not to mention the lack of support from administrators.

Finally, many experts believe teacher mobility is an important consideration related to recruitment. (www.ed.gov/pubs/edpubs.html)

Nebraska, like many other states, and specifically, Chadron State College strive to find recruitment strategies that will work in the effort to attract students to the teaching profession as well as increase retention within the state.

Collaborative, Teamwork Models

Panhandle Unified Rural Education (P.U.R.E.) Project

In 1998, the Nebraska Department of Education in collaboration with the Nebraska Department of Health and Human Services received federal funds to implement Supporting Change and Reform in Interdisciplinary Personnel Training (Nebraska S.C.R.I.P.T) projects in the state. Chadron State College was one of the institutions to benefit from the four year grant.

The grant project, titled P.U.R.E. (Panhandle Unified Rural Education) project set a goal to create an educational certification seeking program unifying course offerings in early childhood and special education programs at Chadron State College and Western Nebraska Community College. The endorsement or certification process was the first attempt at collaboration among faculty, departments, community partners and families to build a workforce of well-qualified early childhood educators who will be prepared to meet the diverse needs of children and families. The following schematic map identifies a visualization of the partners involved in the process.

Since it's inception, approximately 25 students have been involved in coursework and field experiences which support natural, inclusive environments. Large numbers of faculty and staff have been involved in training, and family partners have supported faculty in-service training as well as served as primary presenters in classroom settings. Professional presenters has been invited to Chadron State College to educate faculty on family-focused partnerships, natural environments, C.O.A.C.H. model of service delivery, creating effective teams, inclusion practices, and much more.

Natural, inclusive field experience sites are being identified for placement of special education/early childhood students as well as building an understanding among area schools for the necessity of using a COACH model for early development networking.

Nebraska Early Literacy, Language and Learning Communication (NELLLC) Project

Nebraska received a million dollar grant to assist with collaboration projects among faculty from two and four year institutions of higher education. This grant project has integrated Heads Up! Reading, Read for Joy, bilingual education and ESL programs across the state through interdisciplinary coursework and training opportunities within communities and higher education institutions.

Rethinking Education and Assessment Challenges in Higher Education (R.E.A.C.H.) Pilot Project

Grant funding is being sought for the latest pilot project to provide a continuum of activities from the P.U.R.E. project as well as build an interdisciplinary support team among faculty from Education, Special Education, Family & Consumer Sciences and Psychology. Preliminary plans for the project include more hours in the undergraduate program geared toward field experiences which allow students the apply knowledge base content in natural, inclusive environments. Family and community partners will continue to play a valuable role in the training process as well as articulations with community college personnel.

Survey results from Field Experience

Chadron State College is fortunate enough to have two high quality early childhood laboratories available to students. The laboratory housed on the CSC campus has been state licensed since it's inception in 1962, and nationally accredited since 1989. A research project was recently conducted with students who are enrolled in the elementary/early childhood program at Chadron State College and who work in the laboratories.

Fifteen students seeking early childhood/elementary or child development degrees were randomly selected to complete a survey. All fifteen students completed the survey and report the experience of applying their knowledge

base content from the classroom with their ability to work directly with children as highly valuable. The majority of the students worked three to four years reporting their growth to be extensive in the understanding of development and best practices. "Hands on learning, parent interaction, relationships built with peers, parents and children, high quality developmentally appropriate environment with child centered learning opportunities have made me a better teacher" (Anderson, R., 2002).

Collaboration with Community College Partners

Numerous education-reform plans have opened the doors for collaboration among 2 and 4 years institutions of higher education in an effort to articulate the transfer of credits and build a smooth transition for individuals desiring to improve their education. Chadron State College is working closely with Western Nebraska Community College, Mid-Plains Community College, McCook Community College and Casper Community College to build such agreements.

Each of these two year colleges are within the service region of Chadron State College and serve as valuable partners in the quest for building a higher quality workforce in education.

Nebraska Partnership for Quality Teacher Education Project

Grant projects across Nebraska are taking place in order to build a more effective educational experience for individuals. Currently, pilot pedagogy examinations to assess the effectiveness of teacher preparation programs is taking place along with the establishment of formal processes for ensuring collaboration among pedagogy and content faculty. College faculty are working to implement a graduate follow-up system to assess performance of graduating teachers, and design and implement an institutional monitoring system with multiple assessment measures of student performance and program quality.

Innovative programs that will attract and retain qualified teachers in order to reduce the shortage of Nebraska teachers, particularly in high poverty urban and rural areas are being developed on an on-going basis.

Nebraska T.E.A.C.H. project focuses on mentoring potential teachers through educational programs with tuition, child care or other financial support

Rural Education Achievement Program (R.E.A.P.) providing rural education supporters money and flexibility to hire teachers, fund development, meet special needs in high poverty areas.

Safe and Drug Free School programs; Scholarships and Loan-Forgiveness Programs; Targeted Recruitment Strategies; Financial Incentives; Early Recruitment Practices; Changing Hiring Practices; Teacher Mentor Programs; Housing and Living Costs; Troops to Teachers Program; Incentives for Male Teachers; Merit Pay; Investing in Teachers; etc.

Conclusion

The future of our country and state lie in our hands. Education continues to hold the answers to breaking the cycle of poverty and understanding the diversity of cultures making Nebraska their home. Who cares about our future and who should? The choice is up to us ... you and me.

We can whine about teacher shortages, budgets and not enough money or we can begin to rethink, refine and renew our faith in the power of the people. Hal Urban, a teacher for thirty five years loving every minute of it, states in his book "Life's Greatest Lessons", "success is in the doing, not in the getting". "Let each person become all that he/she was created capable of being."

- Successful people accept life as it is, with all its difficulties and challenges
- Successful people develop and maintain a positive attitude toward life
- Successful people build good relationships
- Successful people have a sense of direction and purpose
- Successful people are action-oriented and have a strong desire to learn
- Successful people maintain high standards and understand the difference between existing and living

We (you and I) have a challenge to insure that 'Education Survives'. Education does matter! Education does make a difference! Education is the key that unlocks the doors to understanding an ever changing world bulging with information and technology.

Research findings spell out the concern for teacher shortages as well as offer a significant challenge for applying the freedom of creativity through strong leadership from all who assume the role of an educator whether it be administrators, parents, family members, teachers or providers. The challenge of funding programs with less time and money truly opens a door to opportunities for making best practices even better as collaboration and integration cause the educational system to focus on 'what is best for children' rather than 'what is best for society'. Historically, educators (you and I) have faced tough times before and with a renewed focus will survive challenging times again. Together we must rethink and redefine the purpose of education and focus on positive outcomes.

One thing is for certain, the educational system will change. Perhaps the traditional small, rural school will lead the way in building partnerships between children, families, schools and communities. Perhaps they will define successful collaboration, renew the trust in the administrative structure supports quality education, and insist on communities working as a team settling for nothing less than safe and healthy environments as well as respect and appreciation for the privilege to be educated in a free society.

Education will survive if educators lead the way to rethinking, redefining and renewing the mission of education. Education will survive through collaborative partnerships willing to close the gaps and knock down the barriers that prevent strong bridges being built. Education will survive if educators are willing to assume the risks necessary to make the world a better place for ALL children!

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Early Childhood

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PROVIDING NATURAL ENVIRONMENTS IN RURAL PART C PROGRAMS

The 1986 Individuals with Disabilities Education Act (IDEA) introduced the country to services for infants and toddlers through the system of Part C services. States were given the direction to develop a system of services including the environments and settings in which children and families would receive the services, the parent's role in decisions, and transitions to later services. The direction given through legislation was to provide services for infants and toddlers in regular environments in community settings in which children would participate if not disabled.

The revisions to IDEA in 1991 replaced the term regular environments with the concept of "Natural Environments of family and children." In 1997, the IDEA Amendments added responsibilities of developing partnerships, strengthening opportunities for learning and including settings that are both natural for the child and family. What this means is the development of services in a natural environment should permeate throughout all aspects of serving infants and toddlers. Natural environments are to be considered during the processes of referral, identification, assessment, IFSP development and implementation, and transition. Environments are not to be based on a continuum as are Least Restrictive Environments for older children in Part B services but valued as a concept that transcends the educational environment. Environments must consider child and family outcomes, family resources, priorities, cultures, and processes of change in all factors. While environments for infants and toddlers will be different in urban and rural settings, they should also look very different across every family served in a Part C program due to the unique need and context of each and every child and family.

Both legislation and research suggest an expanded perspective on natural learning environments that uses daily family and community life as sources for children's learning opportunities. Everyday experiences, events, and places are the sources of children's learning opportunities and can be developed into the overall program for a young child with disabilities. The participation in family and community celebrations provides natural learning environments that promote the development of cultural roles, expectations, and behavioral and developmental competencies. Daily life activities of shopping, sweeping the porch, and preparing a meal are routines and opportunities for learning. Planned activities in the community such as swimming classes or library activities can support a child's developmental experiences. However, when the outcomes for a child are clearly understood, an emphasis can also be placed on learning through serendipitous activities. These would include the learning that takes place when a child helps to put food items in the grocery cart, explores a new room at a friend's house, or throws stones into the stream on a family walk. (Dunst, Bruder, Trivette, McLean, 2001)

BACKGROUND

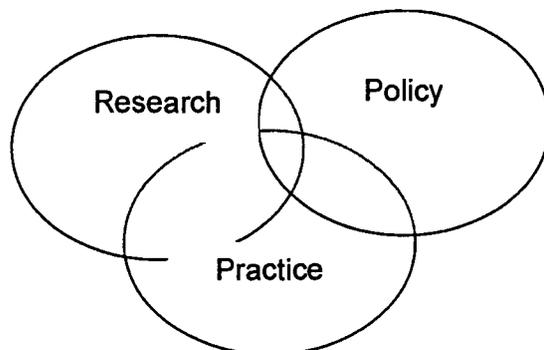
- 1986 Services for infants and toddlers served in regular environments in community settings in which children would participate if not disabled
- 1991 Federal statute added the inclusion of the concept of Natural Environments of family and children. This replaced the term "regular environments."
- 1997 IDEA Amendments added the statements that disability is a natural part of the human condition. The concepts of partnerships, strengthened opportunities for learning, settings that are natural for the child and family, and a higher standard of quality were written into the Part C section of the amendments.

As a value, inclusion transcends the educational environment. Therefore, the considerations for Natural Environments for young children should be based on two important outcomes:

1. Acquisition, maintenance, and generalizability of critical skills

2. Full and meaningful participation in the real world

In short, inclusive environments are driven by a vision that recognizes that everyone belongs and has an important contribution to make.



Research

Several key studies in preschool integration and early intervention led practitioners to a deeper understanding of the effects of service delivery models for young children with disabilities. A few are highlighted briefly here.

- A study of toddlers with disabilities in integrated child care and segregated intervention programs showed no difference in developmental gain between the two settings. Children showed a higher level of social skills when placed in child care.

Comparison of the Effects of Type of Classroom and Service Characteristics on Toddlers with Disabilities—Mary Beth Bruder, University of Connecticut ECSE 18:1 26-37 (1998).

- Children with disabilities receiving services in places with typical peers have demonstrated higher levels of interaction with peers than in specialized settings.
Guralnick, Connor, Hammond, Gottman & Kinnish, (1995) Immediate effects of mainstreamed settings on the social interactions and social integration of preschool children. American Journal on Mental Retardation. 100 (4), 359-377.
- Observations of typical home-based interventions indicated a high rate of child-focused interventions directed by the home visitor rather than a family focus and coordination of broad-based services, which impact family systems and change. Training for early interventionists may not be consistent with best practices and with required focus of Part C.
McBride and Peterson, Iowa State University, Home Based Early Intervention with Families of Children with Disabilities: Who is Doing What? Topics in Early Childhood Special Education, Summer 1997, 17:2.
- Studies of children's activities over time show that infant and toddler participation in community activities is often, but not always, more informal and non-structured in comparison to that of older children. For example, if a child likes playing in water, going to a community pool just to play might be more successful and beneficial than enrolling the child in swimming classes.
Dunst, Hamby, 'Trivette, Raab & Bruder (in press). Sources of naturally occurring children's learning opportunities in the context of family and community life. Journal of Early Intervention.

Several relevant studies report on the effectiveness of integrated services and natural environments:

- In facilitating children's development (Brown, et. Al., 1996, Bruder, 1993; Bruder & staff, 1998)
- In enhancing children and families' quality of life and child competence (Umstead, Boyd & Dunst, 1995)
- In decreasing children's inappropriate behaviors (Dunlap & Fox, 1998)
- In providing support to families (Bruder, 1998)

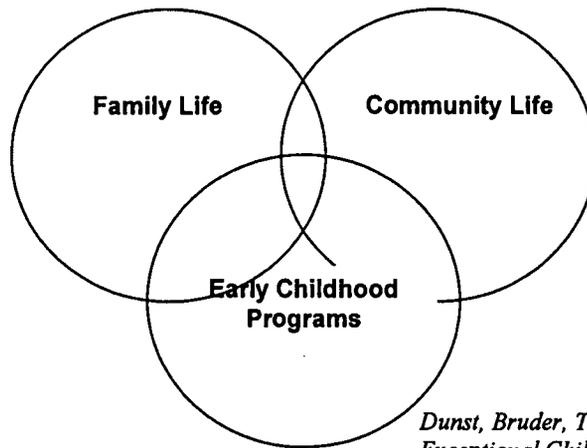
Practice

Practitioners can use the following framework for using everyday family and community learning activities as a way of mapping and increasing learning opportunities for infants, toddlers, and preschoolers.

Family Settings (Examples)	Community Settings (Examples)
<i>Family Routines</i> (cooking, food shopping, animal care)	<i>Family Excursions</i> (running errands, car or bus rides, weekend chores)
<i>Parenting Routines</i> (child's bedtime and bath time)	<i>Family Outings</i> (shopping, eating out, visiting friends)
<i>Child Routines</i> (brushing teeth, dressing, eating)	<i>Play Activities</i> (outdoor playgrounds, indoor playlands)
<i>Literacy Activities</i> (looking at books, listening to stories, reading)	<i>Community Activities</i> (libraries, children's fairs, festivals)
<i>Play Activities</i> (drawing, lap games, playing with toys)	<i>Recreation Activities</i> (horseback riding, swimming, sledding)
<i>Physical Play</i> (roughhousing, ball games, swimming)	<i>Children's Attractions</i> (petting zoos, nature centers, pet stores)
<i>Entertainment Activities</i> (dancing, singing, watching TV)	<i>Art/Entertainment Activities</i> (children's theatre, storytellers, music activities)
<i>Family Rituals</i> (family talks, spiritual readings, saying grace at meals)	<i>Church/Religious Activities</i> (Sunday school, church services)
<i>Family Celebrations</i> (holiday dinners, birthdays, decorating the house)	<i>Organizations and Groups</i> (karate, movement classes, parent/child groups)
<i>Socialization Activities</i> (having friends over, family picnics, visiting neighbors)	<i>Sports</i> (soccer, T-ball, softball)
<i>Gardening Activities</i> (outside work, planting flowers, growing vegetables)	<i>Outdoor Activities</i> (taking walks, hiking, camping)

Dunst, Bruder, Trivette, McLean, Young Exceptional Children, Vol. 4 Number 4, 2001

THREE MAJOR SOURCES OF CHILDREN'S LEARNING OPPORTUNITIES



Dunst, Bruder, Trivette, McLean, Young Exceptional Children Volume 4 No. 3, 2001.

“The benefits of direct instruction with infants and young children is entirely clear, but—even if it weren’t—it would be the caregivers not the itinerant professionals who would be providing such instruction” states Robin McWilliam of the University of North Carolina at Chapel Hill. *“All the child’s learning occurs between sessions.”*

He goes on to describe the professional role, which holds the responsibility for making sure early intervention occurs in natural environments. However, interventions and planning for services can only occur through close collaboration with families.

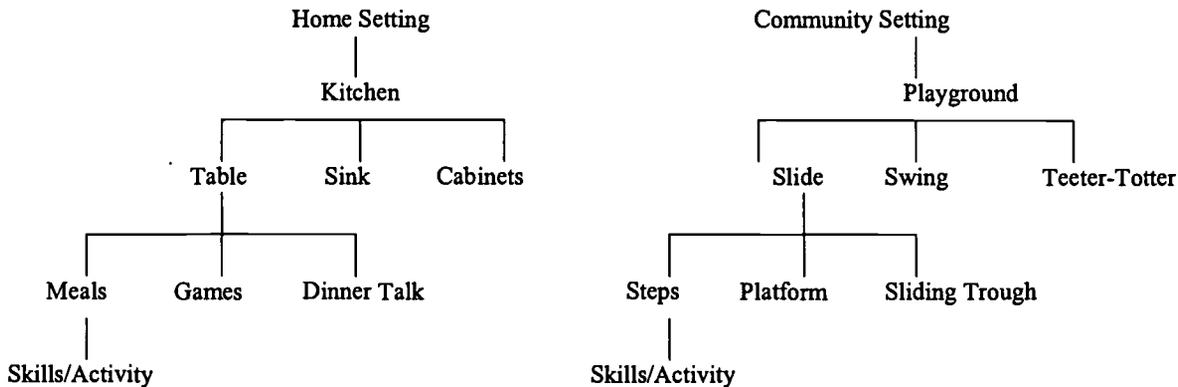
- Examine Routines.
- Do the Math—what will it take to make progress?
- Consider Emotional Support.
- Provide Information.
- Provide Material Support.
- Ensure a Relationship with One Primary Service Provider.

What should families expect from professionals in provision of natural environments?

- Professionals will work in the home and community.
- Professionals will find out about the family’s “ecology.”
- Professionals will find out about the family’s routines.
- Professionals will support families to make decisions about services.
- Professionals will explain how sometimes less is more.
- Professionals will focus on support during home visits.

McWilliam, DEC Young Exceptional Children Monograph Series No.2 (17-26)

A MODEL FOR PLANNING



POLICY CONSIDERATIONS

- For Part C, natural environments take into consideration the need to develop the capacity of the family to meet their child’s individual needs all within the context of the family’s own needs and priorities.
- The IFSP for each infant or toddler receiving early intervention services and their family must include a “statement of the natural environments...in which early intervention services will be provided, and *a justification of the extent, if any, to which the services will not be provided in a natural environment.*”
- When providing services in a group, groups that are not ‘natural groups’ include only children with disabilities. However, even the most ‘natural’ of groups is not a natural setting for a particular child if it is not part of that child’s family’s routine or community.

- Service settings that are not ‘natural settings’ include clinics, hospitals, therapists’ offices, rehabilitation centers, and segregated group settings. However, there are many times when these settings may be appropriate and justified based on child circumstances.
- The provision including location of services rests with the IFSP team as a whole. Therefore, it would be inconsistent with Part C for decisions of environment to be made unilaterally based solely on preference of the family. Not parent ‘choice,’ but planned based on needs and desired outcomes.
- There are critical stages in infant-toddler development where peer relationships support language, social skills, and exploration.
- State Part C systems are using a variety of strategies to address the issues and challenges of fully implementing policies and practices:
 - Statewide Planning
 - Training and Technical Assistance
 - Written Guidelines
 - Regional and Local Planning
 - Funding Incentives

*Walsh, Rous, Lutzer
DEC Young Exceptional Children
Monograph No. 2 (3-15).*

WHAT ARE NATURAL ENVIRONMENTS?

The Federal Government Says:

- “Natural environments means settings that are natural or normal for the child’s age peers who have no disabilities.” (U.S. Code of Federal Regulations 303.12 (4) (b) (2))
- “Early intervention services means developmental services that to the maximum extent appropriate are provided in natural environments, including the home and community settings in which children without disabilities participate,” and “The provision of early intervention services for any infant or toddler occurs in a setting other than a natural environment only when early intervention cannot be achieved satisfactorily for the infant or toddler in a natural environment.” (Public Law 105-17—June 4, 1997 Amendments to the Individuals with Disabilities Act)

Providing services in natural environments means:

- Decreasing a family’s sense of isolation by connecting families to natural sources of support such as friends, neighbors, or church members.
- Encouraging and assisting families in identifying their child’s strengths and talents.
- Helping families to build relationships that do not focus on their child’s disability or difference.
- Increasing the social and language competencies of children with disabilities.
- Providing services to infants and toddlers in settings that are more stimulating and responsive to their needs than segregated settings may be.
- Providing normally developing children opportunities for positive interactions with children with disabilities.

Providing services in natural environments does not mean:

- Placing children in settings without appropriate supports and services.

- Keeping families from networking with other parents of children with disabilities.
- Only providing home-based services.
- Ignoring individual needs and family concerns.
- Placing children in unsafe environments.
- Placing technology-dependent children in the care of untrained staff.
- Creating separate programs for young children with disabilities.
- Compromising the quality of early intervention services.
- Placing unreasonable demands on early childhood teachers.

Resources for this presentation are taken from the following:

- Dunst, Bruder, Trivette & McLean. (2001) Natural Learning Opportunities for Infants, Toddlers, and Preschoolers, *Young Exceptional Children*, Vol. 4, No. 4.
- McWilliams, R.A. (2000) It's Only Natural... *DEC Young Exceptional Children Monograph Series No.2.*
- Walsh, Sharon, Rous, Beth & Lutzer, Christie (2000). The Federal IDEA Natural Environments Provisions: Making it Work, *DEC Young Exceptional Children Monograph Series No.2.*
- "Natural Environments: Linking the Community and Implementation in the Community" (1998), video conference presentations facilitated by NECTAS—
(National Early Childhood Technical Assistance System), April and November.

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MAXIMIZING HOME VISIT TIME IS RURAL EARLY INTERVENTION

Programs for infants and toddlers with disabilities have existed since the mid-1970s, long before early intervention was added to the legislation. Many programs provided early intervention in centers or clinics exclusively for children with developmental delays and disabilities. Families brought their children to a central location to receive services. For programs providing services in rural areas, this center-based model held clear advantages for providers, not the least of which was the ability to serve as many as 10 or 15 children in a single day.

The words "natural environments" were added to early intervention legislation in the 1991 amendments to the Individuals with Disabilities Education Act (IDEA), P. L. 102-119. This language was strengthened with the 1997 reauthorization of IDEA, P.L. 105-17, requiring all early intervention programs to serve children in natural environments to the maximum extent appropriate. For many programs that provided early intervention services prior to 1997, this new emphasis meant a major shift in service delivery. Administrators of such programs faced the challenge of completely transforming their programs after the passage of IDEA 1997. Because of the semantics used in the legislation, many people have focused primarily on location, *where* the professional works with the child (Jung, in press). This shift in location posed a unique set of challenges to those serving rural populations, both in terms of logistics as well as finances.

More than a Place

Changing the location of services to homes and communities where children live is an ongoing challenge for early intervention service providers. Some rural communities are hours from the nearest early intervention program. Unlike previous years when educators and therapists could serve 15 or 20 children per day in a center, service providers now oftentimes use an entire workday to provide services to a single family. This may at first glance seem like a drastic reduction in services, especially to children and families in rural areas. However, if other dimensions of the intent of natural environments legislation are considered, children can in fact receive more intervention than is possible through a traditional, center-based program.

Merely moving the location of services from segregated to inclusive settings does not guarantee support to families (McWilliam & Strain, 1993). In fact, services that are provided in a natural location can still be delivered in an unnatural manner. For example, a speech and language pathologist may travel to an infant's home and work directly with that infant as if in a clinic while the caregiver is in another room. A physical therapist may travel to a childcare center and pull a toddler to another room to provide range-of-motion exercises. Although these locations are natural, clearly this type of service delivery ignores the purpose of the change in legislation (Turnbull, Blue-Banning, Turbiville, & Park, 1999). The following parent quote provided by Turnbull et al. (1999) illustrates explicitly how certain models of service delivery can transform the most natural environment of a child's home into a completely unnatural environment:

I readily became James' teacher. His playtime at home became 'learning time'--actually all his time was learning time. Any free time we had at home was to be spent on his therapy or to be spent feeling guilty that we weren't doing his therapy. I remember one developmental milestone he never achieved--stacking three blocks. He had finally achieved stacking two blocks; the next milestone was stacking three. I modeled for him, prompted him, and finally held his hand while we did it together. Inevitably, when left to attempt it on his own, James would pick up the blocks and throw them. He found this hysterically funny. His early intervention teacher thought he was noncompliant. James obviously didn't get the fact that his ticket to acceptance rested heavily on stacking those blocks. (p. 165)

A natural environment is much more than location (Harbin et al., 1998, NECTAS, 2000; OSEP, 2000a). The broader intent of natural environments legislation was to move beyond teaching the child to supporting families (McWilliam, 1995; McWilliam & Strain, 1993; NASDSE, 1999; OSEP, 2002). "How [services] are provided in these natural environments is just as important as where it is provided" (Hanft & Pilkington, 2000, p. 1). By

emphasizing natural learning opportunities, consultative service delivery, and transdisciplinary teaming, early intervention service providers may be able to make the most of their short time with families.

Natural Learning Opportunities

Many service coordinators report a critical shortage of therapists willing or available to work in rural areas. Also, many service providers express concern that much of their time in serving rural populations is spent in travel. Because of the increase in travel time, many children are visited only once a week or less. Many parents as well as providers question the ability of services offered at this frequency to be as effective as services offered at higher intensities. The logical assumption is more is better. Oftentimes, the most efficient route to more intervention is not through interventionists' visits but through intervention embedded in typical daily routines and delivered by natural caregivers.

Natural learning opportunities occur throughout a child's day, whether learning is planned or unplanned (Dunst, Bruder, Trivette, & McLean, 2001). Picking vegetables in a garden, a walk in the woods, and washing dishes all provide natural learning opportunities. These activities provide many teachable moments throughout the day (Cripe & Venn, 1997; Rule, Losardo, Dinnebeil, Kaiser, & Rowland, 1998). Parents intervene in their children's development every day. They have infinitely more opportunities to enhance their child's development than a professional who visits weekly or monthly. Families do many wonderful things with their children every day to teach them without ever being told to do so by an interventionist. These daily interactions between families and children have a much greater impact on child progress than do early intervention sessions (Dunst, Bruder, Trivette, Raab, & McLean, 2001; Hanft & Pilkington, 2000; McWilliam, 2000).

Consultative Service Delivery

Consultation can be defined as a helping process in which a child receives intervention from the caregiver, who was advised by the service provider (File & Kontos, 1992). Through consultation, caregivers are given strategies that allow them to maximize natural learning opportunities or embed instruction into their daily routines and activities. Consequently, the child has opportunities for intervention all day, every day and in contexts that are meaningful to the child and family. For example, a child who is awake 12 hours per day may receive a direct intervention once per week for one hour. If no efforts are made to share strategies with the family during that hour, the child has only one hour of opportunity for this particular intervention each week. Furthermore, the one-hour of opportunity is more than likely not embedded into a natural routine. If instead that professional uses the hour to provide intervention strategies to the caregivers, the child now has 84 hours of opportunity for intervention each week. Certainly no caregiver should be consumed with thinking about providing the child with intervention 84 hours each week. However, *opportunity* for intervention can be increased using this model.

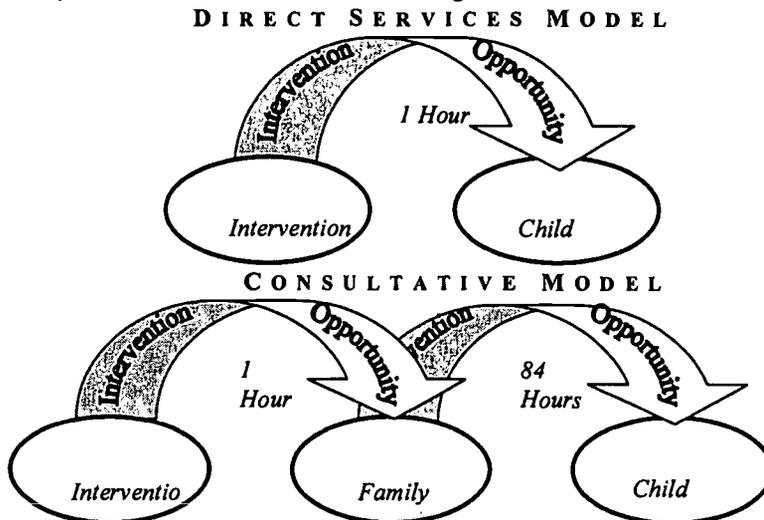


Figure 1. Weekly Intervention Opportunities

Implications of this model are particularly exciting for families in rural environments. Using consultation, children who previously received monthly direct therapy from a therapist may now receive daily intervention from natural caregivers. By expanding the definition of intervention to include what happens when professionals are not around, families can be empowered to take back their rightful ownership of being their child's first teacher.

Some professionals argue that teaching a family strategies is not effective because parents were not trained to learn how to provide intervention (Bernheimer & Keogh, 1995). However, in the early 90s, the medical profession began to recognize the abilities of families to care for their children and began training parents on specific medical procedures necessary for the survival of children with complex health care needs. Parents mastered the ability to suction tracheotomy tubes, feed their children via gastrostomy tubes, and monitor for and respond to bradycardias and apnea (Seitz & Provence, 1990). These procedures are much more complicated than the average intervention suggested by a member of the intervention team. Furthermore, the child's life depends on the parent's ability to do these things correctly. Families in rural areas are empowered to care for their children's medical needs, though they may go for months at a time without direction from medical personnel. Certainly if parents can learn to care for tracheotomy and gastrostomy tubes without ongoing supervision they can learn developmental intervention strategies.

Transdisciplinary Teaming

Deciding frequency of visits and which professionals on the team will visit the family can be a complicated issue. Traditionally, questions like "How severe is the disability," and "Will this parent follow through" have guided how often the child is visited and by whom. At first glance, the logical course may seem to provide more services more frequently to children with delays in more areas or more severe disabilities. However, since professionals should be supporting the families' ability to function independently, visiting too often can send the wrong message. Furthermore, recent research has demonstrated that the more frequently families are visited and the greater number of professionals on the team, the less families feel supported, and child outcomes are diminished (Dunst, 1999). Transdisciplinary intervention is a flexible, holistic and dynamic approach in which team members teach and learn from one another to provide integrated intervention suggestions for parents and caregivers (Linder, 1993).

Finding a balance between enough but not too much may be difficult for professionals, especially when the financial constraint of traveling to serve rural families is added. Three questions can help guide professionals in determining frequency and team configuration for home visits: 1) How often will suggested strategies likely need to be modified, 2) How much support do the caregivers want or need to feel comfortable with the suggested strategies, and 3) What type of support is needed?

How often will strategies need to be changed?

By asking how often the strategies will need to be changed, professionals will likely arrive at a different frequency than if they had simply prescribed more visits for those with more significant disability. A child with more severe disabilities may require intervention that will not need to be changed for months at a time. For example, a child with multiple, severe disabilities may need positioning and movement strategies designed by a physical therapist. These strategies will need modifications infrequently, certainly not weekly and quite possibly not even monthly. Visiting the child each week to assess the caregivers' ability to continue with the same positioning technique is not only unnecessary, but could also be intrusive in their lives and insulting of their ability. A physical therapist attending a recent training remarked, "I go every week because the family wants me to come, but each time I pretty much say, 'good job; keep it up.'" Instead, a single member of the team could visit the family every week to ensure the family receives all supports they need. The other team members, including the physical therapist, could visit the family with the primary support person less frequently. Not only is this configuration more consistent with recommended practice, but can also alleviate a great deal of financial burden on a program attempting to provide multiple, frequent services in rural settings.

What level of support does the family need?

Instead of assuming that some caregivers will not follow through with strategies, professionals should consider what supports a caregiver will need in order to follow through. A family who has a child with cerebral palsy, for example,

may be afraid of hurting the child as they position and stretch her. This family may need more frequent visits for a couple of weeks until they are comfortable with what they are doing.

Frequent visiting by all members of the team may also imply that the caregivers are not perceived by professionals as competent in enhancing their child's development. If interventionists focus on direct teaching activities or therapy during the visit, caregivers may infer that instruction time, divorced from their normal daily routine, is necessary for the child to learn. Too frequent visiting may lead families or childcare providers to believe that only early intervention professionals can impact development of children with delays or disabilities, which may lead to what many professionals describe as lack of follow through on the caregiver's part. If caregivers believe they have no power to increase development in their child, why would they follow through? If they feel interventionists have the power to change their child's development, of course they are going to want them to provide direct services as frequently as possible.

What type of support is needed?

In a center-based model, programs had the luxury of providing a service for every delay for each child. For example, if a child had a delay in gross motor development, the child received service from a physical therapist. If a child had a communication delay, the child received service from a speech and language pathologist. Natural environments legislation makes this type of service delivery difficult, especially for families in rural areas. Furthermore, although this process of decision making may seem logical, there are implications for this type of decision-making. If each team member claims exclusive ownership of his or her developmental domain, a resulting team configuration may be three professionals visiting a family weekly. One family of a child with multiple severe disabilities recently remarked, "I felt like a secretary. My life was consumed with [my child's] appointments...I finally had to put an end to it. It was scary, but I just had to decide which of these specialists I needed to keep and the rest had to go. If I hadn't, I would have had a disabled child and a nervous breakdown."

Deciding who are the appropriate team members to visit most frequently is oftentimes a difficult process for teams. In developing a team configuration, one starting point can be to discuss whether the type of support needed for any given priority or concern would best be provided by a specialist (e.g., speech therapist) or a generalist (e.g., special educator). A person who is an early childhood special educator is qualified to design intervention addressing developmental delay in all five areas of development. However, intervention or therapy designed by a specialist is necessary when delays in areas such as communication, motor development, or feeding appear to be caused by a disorder, or if development in these areas is not following the typical trajectory of child development.

For example, an early childhood special educator and a speech and language pathologist may evaluate a child with a communication delay and agree that the child's delay does not appear to involve a disorder and would best be addressed by providing the caregivers with additional strategies to enhance communication. Either service provider can address this type of delay, so there is no need for both to visit. One person can then provide support and build a relationship with the family.

Had the child's communication delay been suspected by team members to be due to a disorder, the speech and language pathologist would need to have designed intervention. If the child had no other delays, only the speech and language pathologist would need to provide services. A similar approach may be used for a child with multiple and severe disabilities to avoid multiple visits each week and to maximize infrequent visits. One example of a team configuration might include monthly or bi-monthly visits by therapists and weekly visits by a special educator. Though the special educator would not be qualified to prescribe therapy for a child, the special educator can address with the family the child's progress and family's comfort with strategies to determine if the family needs a visit from any of the therapists sooner than planned.

Conclusion

The challenges of serving children in natural environments are magnified in rural areas. Because of issues surrounding geography and resources, it is oftentimes impossible for service providers to visit families as frequently as was possible through a center-based model. At first glance, a need to reduce numbers of visits to rural families may appear to be a serious disadvantage imposed by natural environments legislation. However, by examining the literature it becomes evident that increased frequency of services does not equal positive family and child outcomes;

quite the opposite may indeed be true. By asking a few simple questions to guide decision making, teams can maximize their time in serving rural families.

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**A Comparative Study of the Needs and Sources of Support of African American and White urban and rural
Caregivers of
Young children with Special Needs**

Research, Legal, Philosophical, and Clinical Background

Early Intervention (EI) for Young Children

Federal legislation mandates that states that participate in Early Intervention (IDEA, 1997) provide services to children from birth to the third birthday, who have a diagnosed disability, including developmental delay. This assures services to the very youngest children with disabilities. The premise of this legislation is that early intervention for young children with disabilities will enhance their development and maximize their potential.

Cultural Diversity in EI

If grouped by ethnic/racial background, the children and families who are served in this state's early intervention program, are as follows: 52.9% White (Non-Hispanic), 34% Black (Non-Hispanic), 7.4% Hispanic, 3.9% Multiracial/Other, 1.7% Asian/Pacific Islander, and .1% American Indian/Alaska Native (BCW RBB Data, 2001); these proportions mirror the national percentages. These percentages demonstrate that the EI population is a diverse group. It has been documented that service delivery has not always taken into account this fact (Sontag & Schacht, 1993), and has been patterned after a mold that does not recognize this diversity. African Americans comprise the second largest group that is being served in the program, yet they are infrequently queried nor are their needs and priorities specifically addressed in delivery of services.

Limited Research With Participants Who Are From Diverse Backgrounds

Research in the past has involved children and families that are mainly middle class and White (Palmer, Borthwick-Duffy, & Widaman, 1998; Turnbull & Ruef, 1997; Bailey, Blasco, & Simeonsson, 1992a). This is only representative of one of the many groups that are served in EI. There is increasing recognition that results may or may not be generalizable to the other groups. More recent research has begun to document that these other groups may have issues, points of views, or backgrounds that must be taken into account in order to provide adequate and appropriate services.

Suspected Areas of Difference

The question of whether or not there is a need for a different type of service delivery for African Americans needs to be investigated. At this point, it is suspected, but not necessarily documented, that there is need for a different type of service delivery. Needs may or may not be different enough to warrant a tailored type of service delivery. It is suspected that there is a need for a different type of service delivery because there is a difference in the proportions of AAs who utilize school-aged special education services and who utilize Part C services (US Department of Education, 2000; Patton, 1998). There appears to be underutilization of the early intervention system by [minorities] (Arcia, Keyes, Gallagher, & Herrick, 1992). African Americans may have differences in child rearing practices, they may have differences based on their social status in society, or they may have differences based on being involuntary immigrants (versus voluntary immigrants); these potential differences may affect the

way services should be delivered for these families as well as the families' views about service delivery and/or EI in general. Service delivery should be based on the specific needs of the individuals who are being served.

Another area of suspected need for different type of service delivery for urban and rural caregivers of young children with disabilities. Differences brought on by the geographic location of the families, such as, availability of resources, access to resources, and familial contact, may impact how services should be delivered for these families.

Research Literature

Literature that is relevant to this proposed study lies in the areas of family centered care, the diversity that is represented by these families, the needs and sources of support for these families, and how these needs and supports are mediated by the background and geographic location from which these families come.

Family Centered Care

One of the cornerstones of the field of Early Intervention is that of family-centered practice (Mahoney & Bella, 1998; Bailey, Buysse, Edmondson, & Smith, 1991; Dunst, Johanson, & Trivette, 1991). The term family centered care represents a set of beliefs, attitudes, and principles that guide the delivery of services to young children with special needs and their families (Bruder, 2001, 2000). Since originally mandated in 1986 (PL. 99-457, Part H [now Part C]), family centered care has evolved from an idea into a practice (Turnbull & Turnbull, 2001; Beckman, Newcomb, Frank, Brown, Stepanek, & Barnwell, 1996; Pearl, 1993). In this practice, and as it is written in the law, family centered practice views the family's needs and beliefs as equally important as those of others on the early intervention team. There is also the belief that the family's priorities should be the guiding force in service delivery (Turnbull & Turnbull, 2001; Bruder, 2000). Since Inglesias and Quinn (1997) remind us that culture is a universal context and that all children and families, staff, and organizations bring values and beliefs to early intervention situations, culture cannot be left out of this practice of family centered care. Sometimes interventionists are looking to the broader goal, while families are looking at the "little things" (Beckman, et al., 1996). Adherence to a policy of family centered care can become problematic when families are from different backgrounds than the people who are providing the services.

Diversity

Even when diversity is recognized, it is difficult to effectively include the voices of families who are from diverse backgrounds into service delivery (Harry, Kalyanpur, & Day, 1999; Kalyanpur & Harry, 1999; Harry, 1997; Sontag & Schacht, 1993; Harry, 1992a, 1992b). There is an increasing need for research that seeks to address family centered practice within the context of families from diverse backgrounds (Reyes-Bianes, Correa, & Bailey, 1999; Chen, Brekken, & Chan, 1997; Hanline & Daley, 1992). There is also a need for research that addresses the needs of families from specific cultural backgrounds (Reyes-Bianes, et al., 1999; Harry, 1997; Chang & Pulida, 1994; Polk, 1994). There is a need for research that includes families who are from diverse backgrounds because the number of persons who are from diverse backgrounds has increased steadily over the last twenty years (United States Bureau of Census, 2002). Nearly 30% of the population of the United States is of non-European ancestry; compared to just 12% in 1970, this represents a significant increase (Lynch & Hanson, 1998). This change in the diversity in the general population creates a domino effect on early intervention systems.

The change in the diversity in the general population has not systematically been replicated in the early intervention system's population. There has been some change, but not at the same rate as the general population (Hains, Lynch, & Winton, 2000). Increased diversity in the general population has created a mismatch between service providers and the families who are enrolled in early intervention systems. Providers are still predominantly White and female, while the population they serve is becoming increasingly diverse (Hains, et al., 2000; Winzer & Mazurek, 1998; Lynch & Hanson, 1993). Within the diversity that these families represent are a large number of young children with disabilities and their families who are African-American. In Georgia, 34 % of the children and families who are being served in the early intervention program are of African American descent. These children are the second (to White) largest group of children receiving Part C services (BCW RBB Data, 2001).

Due to the dichotomy of service providers from one background and children and families they serve from another, researchers have called for increased sensitivity on the part of service providers to the culture(s) of the

families they serve (Park & Turnbull, 2001; Tabors, 1998; Harry, 1997; Dennis & Giangreco, 1996; Barrera, 1993; Harry, 1992b; Hanson, Lynch, & Wayman, 1990). There has also been research documenting success in the designing and implementation of programs that have a strong focus on servicing the needs of young children who are from diverse backgrounds and their families (Washington, 1996; Gonzalez-Mena, 1992; Bruder, Anderson, Schutz, & Caldera, 1991).

Family diversity

One definition of "family" is a group of people, related by blood or circumstance, which rely upon one another for security, sustenance, support, socialization and stimulation (Chynoweth & Dyer, 1991). This definition of family allows us to include individuals who are not related by blood, but by circumstance. Such circumstances include, but are not limited to, children and families who identify themselves as foster families, grandparents who are raising their grandchildren, and a myriad of situations that involve young children being reared by persons other than their biological parents. The term "caregiver" encompasses the various possibilities of how individuals identify themselves as a family. The federal definition of "parent" includes natural/adoptive, guardian, or person acting in place of parent, assigned surrogate, and foster parents (IDEA, 1997). This definition too, recognizes a myriad of family formats. Our society's educational and social systems must recognize that there are differences that must be addressed when dealing with families, specifically families who are from culturally or linguistically diverse backgrounds (Lynch & Hanson, 1998; Harry 1992a; Anderson & Goldberg, 1991; Anderson & Fenichel, 1989). This is especially true for systems that propose to be family centered, such as, the early intervention system.

Needs and Sources of Support

In Early Intervention, families are enrolled in the program for a short time (maximum three years); therefore, it is imperative to plan ahead from the beginning. Being able to identify a family's needs immediately allows planning for the provision of the resources or supports that are necessary to fulfill these needs (Turnbull & Turnbull, 2001). Since needs are fulfilled utilizing supports within a family's community, it is important to ascertain directly from the appropriate person(s) what their needs and sources of support involve. This allows service providers to enable and empower families (Dunst, Trivette, & Deal, 1988). As sources of support may be cultural, economic, social, or spiritual (Bradley, 1992), early intervention needs to recognize that these types of support may already exist in communities. Persons who are from the same cultural, economic, social, and spiritual backgrounds might have created systems that work for them and are currently being used. It is imperative that early intervention programs find out what these systems are from the persons who use them. Systematic attempts must be made to unveil this information. The families themselves should be the ones to provide this information.

This information will then be provided from the families' unique perspectives, which includes, but is not limited to, cultural identity, recent and past experiences, or the location in which the families live. Location is important because it often drives the person's perspective. The perspective of someone who lives in a rural environment (locations with fewer than 2500 residents) is very different from that of a person who lives in an urban environment (more densely settled areas) (Economic Research Service, 2002). Though the majority of the U.S. population resides in rural environments (United States Bureau of Census, 2002), the issues surrounding those that reside in urban environments are often so great that they warrant equal attention.

Need and Support Mediated by Geographic Location

One of the challenges that face early intervention in states, such as the one in this study, is the ability to serve families who reside in both urban and rural environments while still being able to meet the unique needs of each. Turnbull and Turnbull (2001) and Kozol (1995) tell us that rural and urban factors significantly affect the way services are delivered to children and families. Researchers have documented significant differences in the need for tailored service delivery models for both rural (Fenichel, 2000; Butera, 1998; Watson & Bennett, 1993) and

urban populations (Unger, Jones, Park, & Tressell, 2001; Baxter & Kahn, 1999; Fantuzzo, Stoltzfus, Lutz, Hamlet, Balraj, & Turner, 1999; Kuchler-O'Shea, Kritikos, & Kahn, 1999; Boone & Coulter, 1995). Taking into account the views of caregivers who are White and who are African American (the two largest groups who are being served in the early intervention program) and who reside in urban and rural locations enabled the researcher to ascertain a more comprehensive picture of the needs and sources of support for caregivers of young children with disabilities.

The purpose of this study was to compare the self-perceived needs and sources of supports of African-American (AA) and White caregivers of young children with disabilities. By determining and comparing their needs and supports, EI can be more responsive to these needs, and perhaps broaden the network of support that is available for these families. The field of early intervention can use information gained from such research to possibly identify more supports or alternative supports and to respond to the unique demands of children and families who are from culturally diverse backgrounds. Family centered care, being one of the hallmarks of the field of early intervention, can be strengthened by gaining information that can be used to modify and enhance appropriate family-centered and culturally sensitive EI practices (Turnbull & Turnbull, 2001; Bruder, 2000).

Theoretical Foundation

The theoretical foundation within which this proposed study is grounded is that of family systems theory (Turnbull & Turnbull, 2001; Bronfenbrenner, 1986; Bronfenbrenner, 1979). Family systems theory is grounded within the greater general systems theory, which states that all living systems are composed of interdependent parts. What affects one part is likely to affect other parts (Beckman, et al., 1994; Von Bertalanffy, 1968). Family systems theory applies general systems theory to the living unit of the family, with an emphasis on interactions and relationships. It is also closely tied to the work of Urie Bronfenbrenner. Early intervention as a whole recognizes that the family, including families of young children with disabilities, is a living entity that is made up of interdependent parts (Turnbull & Turnbull, 2001; Unger, et al., 2001; LeLaurin, 1992; Dunst, Trivette, Hamby, & Pollock, 1990; Bailey & Simeonsson, 1988; Fewell & Vadasy, 1986). If one or more of these relevant parts is not functioning as intended, the other parts are subsequently affected. (Turnbull & Turnbull, 2001; Boss, Doherty, LaRossa, Schumm, & Steinmetz, 1993; Thomas, 1992; Becvar & Becvar, 1982).

Variables and Instrumentation

Hypotheses and Research Questions

The hypotheses utilized in this study were nondirectional alternative hypotheses (independent variables: AA, White, Urban, Rural, will differ on dependent variables: Needs and Support). The independent variables of ethnic/racial background were defined by US census definitions for African American and White. The independent variables for geographic location also utilized the census definition for urban. Due to ambiguity of definitions for rural, Goreham (1997), was instrumental in clarifying the definition for rural. The dependent variables were defined and characterized by the Family Needs Scale (Dunst, Cooper, Weeldreyer, Snyder, & Chase, 1987) and the Family Support Scale (Dunst, Jenkins, & Trivette, 1986).

Six overall questions/10 permutations:

- Do caregivers differ by race/ethnicity (AA, White)?
 - On family needs?
 - On family sources of support?
- Do caregivers differ by location (urban, rural)?
 - On family needs?
 - On family sources of support?
- Does the interaction race/ethnicity and location have an effect?
 - On family needs?
 - On family sources of support?

Participants/Setting/Implementation

Participants were mothers (or primary female caregivers) of young children with special needs. The families were currently enrolled in the state's EI program. They were either African American or White (total over 87% of the EI population) and the resided in urban and rural portions of the state. They were recruited through the EI program service coordinators

Data were collected at the participants' place of choosing, typically their homes. Some data were collected at local health district office and other mutually agreed locations. Upon meeting, the researcher administered the data collection instruments, by reading all instruments aloud (for consistency and issues of literacy). Upon completion, the incentive for participation (\$10 cash) was given.

Data Analyses and Results

Analysis of Variance (ANOVAs) statistical procedures were done to determine if the differences reported by the families on the overall (averages of composite scores) levels of need and overall levels of support were significant. MANOVA procedures were done to determine if the families reported statistically significant differences on subscales (averages of subscale scores) of need and subscales of support. All analyses addresses ethnic/racial and geographic location differences.

Family Needs

The general results of the ANOVA analysis for family needs are as follows: The relationship between race/ethnicity and the composite of need was significant. African American and White caregivers differed significantly on the overall need they reported. Urban and rural caregivers did not differ significantly on their overall level of need reported. The interaction of race and location as it affects need was not significant.

The MANOVA that examined relationship between race, location, and the four subscales of family need yielded the following results: African Americans and Whites differed significantly on all the subscales of family needs; there was no significant difference between the urban and rural respondents on any subscale of family need; there was a significant interaction effect of race and location as it affected the personal and family growth subscale of family needs. The four estimated marginal means for all groups (AAU, AAR, WU, and WR) on personal and family growth interaction were compared. The difference between WR and AAR was not significant; however, the difference between the means for AAU and WU caregivers was significantly different. Furthermore, while AAU and WU caregivers had distinctly different means from each other, both means were significantly different from those of the and WR and AAR caregivers, with AAU caregivers expressing the highest mean for need.

Family Sources of Support

The general results of the ANOVA analysis for family sources of support are as follows: The relationship between race/ethnicity and the composite of support was not significantly different. African American and White caregivers did not differ significantly on the overall level of support they reported. Urban and rural caregivers, though, did differ significantly on their overall level of support reported. The interaction of race and location as it affects overall support was not significant.

The MANOVA that examined relationship between race, location, and the subscales of family support yielded the following results: African Americans and Whites did not differ significantly on any of the subscales of family sources of support reported; there was a significant difference between the urban and rural respondents on two subscales of family support (formal/informal kinship and social/organizational support). For the interaction effect of race and location as it affected the subscales of family support, one subscale was found to be significant, that is, spouse/partner support. Actual group means are listed in Tables 14 and 15. The four estimated marginal means for all groups (AAU, AAR, WU, and WR) were compared. The difference between the means for WU and AAU caregivers was not significant; however, the difference between the means for AAR and WR caregivers was significantly different. Furthermore, while AAR and WR caregivers had distinctly different means from each other,

both means were significantly different from those of AAU and WU caregivers. Caregivers who were WR expressed the highest means for support.

Limitations

Limitations of this study include the representativeness of the sample, the generalizability of data based on racial/ethnic comparisons, and limitations of the instrumentation.

Representativeness of the Sample

The representativeness of the sample may be limited because participation was voluntary and the caregivers were approached and asked if they were willing to participate. Refusal to participate was not recorded; therefore, it is not known how many families (that were approached) refused to participate, and consequently, their reason(s) are not known. Because the relationship between need and support and willingness to participate is not known, it could be concluded that those who chose to participate were just as likely to be needy/not needy or supported/not supported as those who chose not to participate.

Generalizability of Data Based on Racial/Ethnic Comparisons

"Ethnic/racial background" and "culture" are used synonymously in some sources of the literature to designate that a group of people have shared values, beliefs, and ways of being. This premise is predicated on the fact that if people share a common experience, background and way of being, then conclusions can be drawn and generalizations can be made about them (Hanson & Lynch, 1992; Hanson, et al., 1990). If conclusions are drawn they must be tested, repeatedly, before generalizations are made. This research is one such attempt to test these conclusions and to query the persons for whom conclusions are being drawn. Other researchers (Chen & McCollum, 2001; Garcia, Perez, & Ortiz, 2000) are doing similar work; however utilization of participants who are African American is not as common. In order to draw conclusions about groups of people, it is beneficial to query those people directly, which is what this research has done.

Though systems are urged to acknowledge that diversity exists across groups, there are within group differences that must not be overlooked. It should never be assumed that because families are from a certain background, that their beliefs are similar. Lynch and Hanson (1998) speak of a "continuum of cultural identification." They caution the reader that "[a]ssumptions about an individual's behavior based on a cultural label or stereotype may result in inaccurate, inappropriate, or harmful generalizations" (Lynch & Hanson, 1998). The 'individualized' in the IFSP is a reminder that services are to be tailored to the specific family's needs and priorities for their child. Persons from some groups may or may not express similar needs and priorities. It is important to find out what those needs and priorities are. Caution however must still be exercised to avoid over generalizing based on what is reported by groups of these caregivers (Laosa, 1991). Instead, systems should build on patterns or themes that emerge from the responses to tailor service delivery.

Limitations of the Instrumentation

Issues regarding limitation of the instrumentation used in this study are relevant for both the Family Needs and the Family Support Scale. Both instruments are on a five point Likert scale. They offer a "Not Applicable" or "Not Available" choice respectively. On the Family Needs Scale, "Not Applicable" could be interpreted as "this item really does not apply to me and my family" or it could be interpreted as, "since we have the resources to address this, it really is not an issue I cannot deal with."

The subscales for family need and the subscales for family sources of support were moderately to highly correlated. Though it would be preferred that these correlations show that the subscales are independent constructs, it is acceptable that they are not, as the purpose of looking at the subscales in addition to the overall need and overall support, was to determine specific types of needs and support.

Implications/Summary

The findings from this research may have implications regarding family centered practice, culturally appropriate and general service delivery, and public awareness. In order to maintain the mandate of the law, which

ensures family centered practices in early intervention, programs could use these results to shape policies regarding families who are African American and families who are White. Truly family-centered service delivery is service that takes into account the families' culture and how that relates to their needs and supports.

Urban and rural caregivers reported different levels and types of supports. Public awareness activities and service delivery should reflect the needs of both urban and rural caregivers, especially in regards to family supports.

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GRANTED: THREE WISHES TO IMPROVE ACCESS TO THE GENERAL CURRICULUM

Introduction

Wishes came true for three rural schools in St. George, Utah when The Utah Signal (State Improvement Grant: Networks and Alliances for Learning) Project approved a grant to improve access to the general curriculum. Their three wishes were: (1) better skills in adapting core curriculum, (2) better access to support services, and (3) improved inclusion for students with diverse learning needs.

What started as a desire to improve inclusion by a team of eight teachers serving on a district Inclusion Team, turned into a full-fledged project called *The Project to Improve Access to the General Curriculum for all Students*. The project enabled the Washington County School District's Inclusion Team to provide specific support for three schools, Washington Elementary, Snow Canyon Middle, and Pine View High, with comprehensive inclusion support and staff development over a two-year period. Each of the three schools expressed their needs in a letter of support. A common thread emerged from the letters. They all contained requests for (1) assisting regular education teachers in adapting the core curriculum to better meet the needs of diverse learners (2) assisting schools in coordinating existing support, and (3) becoming better inclusionary models through improved practices.

District personnel in St. George, Utah felt somewhat isolated from the professional development opportunities on the Wasatch Front. With three hundred miles separating them from the main populace of state's educators, the opportunity to participate in a project that could lend professional support to their learning community was an opportunity not usually afforded to entire school faculties. Previous models of professional development involved a limited number of teachers participating in the typical sit and get trainings. Actual costs of attending conferences or trainings were heavily burdened by ten hours of travel, substitute costs, and overnight accommodations.

Prior to receiving the grant, inclusion efforts were supported by the district's Inclusion Team. Members were special educators and regular educators from elementary and secondary schools. Their training came from Utah's Project for Inclusion, a collaborative effort with the Utah State Office of Education and the University of Utah. Teams of teachers from across the state met together several times a year for training on best practices for inclusion of students disabilities. The blending of regular and special educators provided a forum for sharing the best practices each other could offer. In a document prepared by the Western Regional Resource Center in Eugene, OR, the collaboration of educators in general and special education is helpful for both parties. It states, "The power of special education has been, and continues to be, its emphasis on individualized instruction. As general education becomes more diverse itself, educators are recognizing the need to view all students as individuals. Consequently, at the same time special educators are seeing effective general education practices and environments as appropriate for students with disabilities, general educators are looking to special education for strategies to teach challenging students." With this unique blending of background and training, the Inclusion Team was an example for rest of the district in how to practice inclusion among themselves. They presented several in-services at faculty meetings on topics they had learned. Although well intended, they did not get the results they had hoped for. The lack of time available to fully implement what the schools needed in the area of professional development also hindered their efforts. Together they determined that they wanted to write a grant that would help free up some time for one person to coordinate staff development needs and provide comprehensive inclusion support. Thus, the Project to Improve Access to the General Curriculum for all Students was drafted then approved.

In a reflection of two-year's worth of inclusion activities, a framework has emerged for other schools to consider as they set up a meaningful approach to inclusion and staff development. Now, more than ever, every student's education counts as schools nationwide are striving to meet the No Child Left Behind requirements. Robert Marzano (2000) observed that the impact of the individual teacher could have a great impact on student achievement. His three teacher-level factors; instructional strategies, classroom management, and classroom

curriculum design, are all imbedded in the grant activities. The grant framework lends itself to any school wanting to improve student achievement by all students by providing teachers with skills and knowledge to achieve the task. Through closer alignment to core standards, and closer attention to the learning needs of a diverse student population, any school can improve their academic accountability. By matching teachers' needs to staff development, success can follow.

The Grant: Project to Improve Access to the General Curriculum for all Students

The desire to improve teacher training to meet the needs of students with diverse learning profiles was identified through several needs assessments conducted by the Washington County School District Inclusion Team. Given to various school faculties, the results showed that teachers were frustrated in their efforts to try to meet the needs of all students within their classrooms. Concerns center on:

- low student reading levels and how to teach these students in the general curriculum
- how to address the varied learning levels of their students
- the need to increase student performance
- curriculum adjustments and grading
- a need for good co-teaching examples
- need for better paraprofessional training

In January 1999, the Special Education Department of Washington County School District conducted a similar survey among special educators. The results of that survey indicated both regular and special education teachers needed more training in areas of co-teaching, curriculum modification, collaboration, learning styles and building mastery of curriculum. They also expressed a desire to observe classrooms where successful inclusion is happening with time to interview teachers.

The survey and needs assessments indicated most teachers want to meet the needs of all students, and they are willing to learn new techniques to help them. However, many teachers have not been trained in effective instructional techniques for diverse learners that would enhance student outcomes. To assist in this effort, the district's Inclusion Team served as consultants and provided in-service training to those schools requesting assistance from 1996 to 1999. Although effective in solving some immediate problems, the team felt their efforts could be more effective if there were a way to provide consistent long-term support to schools, as opposed to one-time in-service training activities. They wanted a way to solve teacher problems and offer teachers a sustained support system. Limited by time and money constraints, they decided to apply for a grant offered from the Utah Signal Project. Their wishes came true when the grant was approved in August, 1999.

The Project to Improve Access to the General Curriculum for all Students targeted three schools, an elementary, middle and high school, for "full service" inclusion support over a two-year period. In addition it called for greater support to all schools district-wide (a total of 30 schools). One of the team members became the Inclusion Specialist to work full-time on inclusion needs. The target schools were able to develop training specific to their needs. All activities aligned with the district's strategic plan to align and coordinate curriculum, emphasize performance and meaning, build school community and promote personnel development.

One of the primary objectives of the project was to assist regular education classroom teachers in adapting the core curriculum to better meet the needs of diverse learners. According to Kathie Nunley (2001), the average room of 32 students will have four students officially identified by the special education system, another four students she calls "unidentified special education students", two students with an attention deficit disorder and two who have limited English language usage. Add to this their mixed learning styles. Nunley figures "eight will be visual learners, seven auditory learners, and 18 tactile learners who learn best by manipulating material." "Clearly, the more diverse the student body, the more skilled educators must be as a collective instructional body" (Thousand and Villa, 1995). To assist teachers in accommodating this diverse group, the grant proposed activities that would increase the number of teachers (regular, special education, and special programs) with skills necessary to adapt core curriculum to various student needs. Another goal was to assist schools in coordinating existing support services, an area where teachers frequently did not know how to access support services, learning what

services they had to offer, and eligibility requirements. Such collaboration is necessary so teachers can "share their skills across students and classrooms" (Thousand and Villa, 1995).

To support these goals, a framework was created for the two year project. Programs were selected that were most likely to answer the wishes of the grant schools. Those that had most impact on bringing about improved access to the general curriculum were:

- **Project RIDE (Responding to Individual Differences in Education)**
- **Student/Staff Support Teams**
- **Tribes, which re-structures and re-cultures whole school communities while raising academic excellence**
- **Layered Curriculum™ as a way of differentiating instruction for diverse learners**

What follows is a review of the four programs and how their implementation improved not only the three grant schools, but the entire district.

Project RIDE (Responding to Individual Differences in Education)

Project RIDE, a program of behavior and academic interventions, has been around Utah schools for a long time in one form or another. Once they were contained in binders, then it was found in video format. Now there is a CD version. It has been adopted state-wide in Utah as well as several other states. It can be found in over 3,500 schools across the nation. Once loaded onto a teacher's computer, RIDE can offer teachers help with their most challenging situations in the convenience of their own room, on their own time.

The four basic components of Project RIDE are Effective Classroom Practices, the Computer Tactic Bank, Video Library and School-Wide Assistance Team training. In the Effective Classroom Practices section, teachers are able to check their own practices according to five themes: (1) there are high expectations for all students, (2) instruction is clear and focused, (3) learning is monitored closely, (4) behavior management plans are in place, and (5) there is a positive atmosphere in the classroom. This critical self-check is an important first step for teachers to check their current style of teaching against those found in professional literature. The Computer Tactic Bank is categorized by problem areas specific to pre-schools, elementary, and middle schools. Perhaps most helpful, is the form on describing a behavior. Once the behavior is identified and matched to the problem area, the tactics can be reviewed on the computer and then printed out. The printed tactic can then become documentation of an implemented intervention. Teachers only need to add the date started, date ended, and a statement as to the effectiveness of the intervention. The Video Library contains short video clips of some of the tactics. They are helpful in showing teachers how the tactics are actually used in the classroom. The School-Wide Assistance Team section offers guidelines in creating a building-level support team for at-risk students. A video shows a SWAT team meeting. The book offers several forms that can be used for the request for assistance, the team action plan, and the follow-up report.

RIDE can be a teacher's first line of defense in helping a student. It is a very effective tool when teachers are trained to use it. The premise is that all students are the responsibility of the entire building staff and teachers can be their own best resource. When behaviors improve, academics improve. Thus, RIDE became the first step in reaching the grant's goals by providing teachers with a quick and easy to use tool for handling problem behaviors in their classroom.

Student/Staff Support Teams

Student/Staff Support Teams (SST teams) are also known as Teacher Assistance Teams (TAT teams), School Wide Assistance Teams (SWAT teams), Student Assistance Teams and other various titles. Their objective remains the same: offer teachers help with struggling students. Seen as the next step a teacher can use, the SST team offers another level of support for a student at-risk of failure. By providing formal training in implementing a SST team, teachers were able to see the value of collaborating for the benefit of the student and learn how to access support services available to them. This linkage to support services proved very helpful. For the first time, some saw their own efforts being recorded in the pre-referral process. The importance of the documented interventions and the comments teachers made regarding their effectiveness were now seen as important information, reviewed by

others in a professional manner. Their collaborative ethic grew as their belief in the joint accountability for problem resolution grew. As they shared the responsibility for student success, more students flourished in classroom.

Teams are comprised of 3-5 teachers. It is recommended that special education teachers not serve as regular members of the SST team. Instead, they may be called in as consultants to the team when their expertise is needed to assess a situation. Members meet when referrals are made to the team. The referring teacher is invited to the meeting. Interventions are selected and an action plan drawn up. The team meets again at the end of the intervention period to discuss the resolution or further action.

Tribes

Building a caring community can contribute to the academic success of many students. Tribes is a program that was introduced to the schools as a way to build "a new pattern of interaction with one another." Formal training was provided to teach collaborative skills with students and other teachers. Started in 1991 by Jeanne Gibbs, Tribes incorporates elements of cooperative learning and social appropriateness. It supports community agreements of attentive listening, appreciations/no put-downs, the right to pass, and mutual respect. "The outcome of the Tribes process is to develop a positive environment that promotes human growth and learning." It provides "structure for positive interaction and continuity for working groups. (Gibbs 1995) A Peter Senge quote from book states, "The way organizations are now is a product of how we think and interact. They cannot change in any fundamental way unless we can change our basic patterns of thinking and interacting so that learning can be a way of life." Changing the way students and teachers interact with each other is the focus of Tribes.

The training for Tribes proved to be a fun community building experience for the teachers also. Fun activities are sometimes not given enough importance in the change process, but with Tribes it laid the foundation of collaboration and cooperation that created a more positive learning environment. The Tribes Learning Community circle shows the relation of inclusion, influence and community. All tie into one another and Tribes definitely helped create a paradigm shift from traditional teaching practices to emerging "best-practices".

Layered Curriculum™

Layered Curriculum is a teaching method developed by Kathie Nunley, EdD. In her book, Layered Curriculum, the sub-title reads: The practical solution for teachers with more than one student in their classroom. It offers core access by differentiating assignments in a tiered format that meets the needs of a diverse classroom. Nunley describes her Layered Curriculum as a "triangular shaped model that encourages higher level thinking by requiring more complex thinking to earn a higher letter grade." The C level assignments ask for general information, rote knowledge, basic skills and concepts. It covers the basic core curriculum. B layer assignments use practical application of lower skills and knowledge to problem solving and discovery. Assignments in the A layer offer critical analysis and critical thinking to the lesson's objectives. On an elementary level, Layered Curriculum is sometimes offered with daily choices rather than the A-B-C grade format. The design is most used most often with units. Robert Marzano (2003) reports that, "An instructional framework for units, represents a viable alternative to lesson design. It guides teachers to the most appropriate use of research based strategies but does not constrain them as to day-to-day lesson design." As was found when teachers started implementing Layered Curriculum, their role changed to become a facilitator of learning rather than the sole source of the knowledge being presented.

To support the development of Layered Curriculum, study groups were formed to help each other in creating their units of study. Some core curriculum content areas were in the process of being rewritten as the groups met. The time allowed us to look at the drafts and create pertinent units which linked to the core as it was being revised. Time was spent on the Help4Teachers website where other teachers from across the nation post lesson plans they have designed. More than anything else the grant supported, Layered Curriculum helped teachers see the possibility of making core accessible for all students. Those who participated in the training, continue to use it and refine it. Students were finally in charge of their own learning.

Summary

It doesn't take three wishes to make the general curriculum accessible for all students. It does take a framework of professional development though. The project proposed by the Washington County School District's Inclusion Team worked because they used programs with a proven track record for success. It was designed specifically to give teachers more confidence in working with a diverse student population. Initial trainings were followed up with one or more review sessions. There were challenges in the course of two years. A new principal was appointed to the elementary school after the first year. The middle school's faculty was divided to staff a new intermediate school. The high school went through accreditation the second year. But, seeds were planted that have grown into better teacher skills. As it turned out, three schools are now much closer to meeting the No Child Left Behind standards. And best of all, more students are participating in the general curriculum with success.

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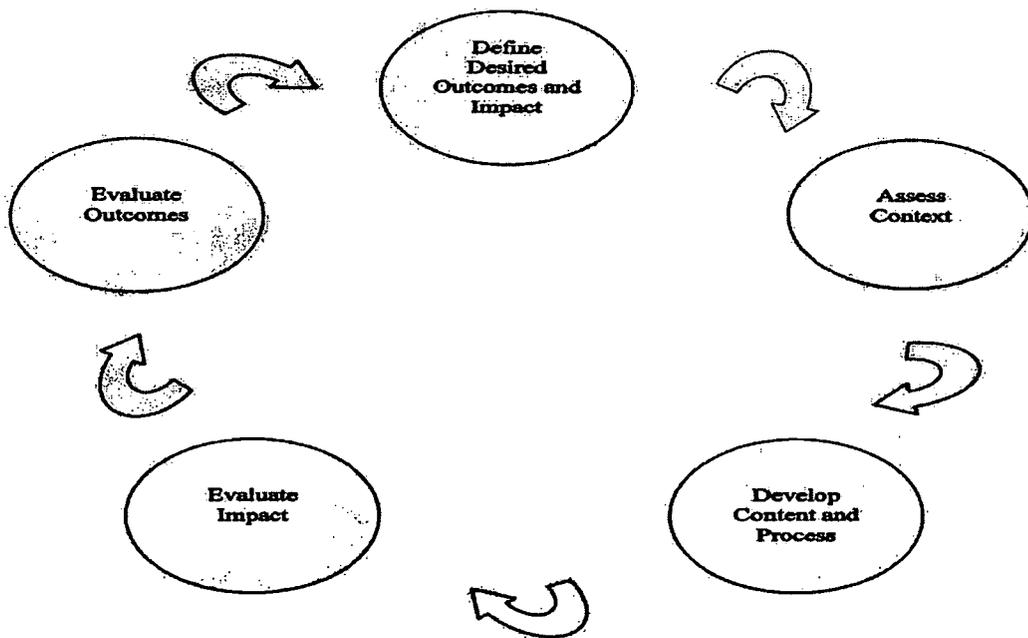
*ENSURING RURAL SURVIVAL:
DESIGNING PROFESSIONAL DEVELOPMENT THAT BUILDS LOCAL CAPACITY*

Much discussion has focused on the apparent failure of the field of special education to “bridge the gap” between research and practice (Carnine, 1997; Vaughn, Klingner, & Hughes, 2000). The President’s Commission on Excellence in Special Education (PCESE) (2002) found that special education places too little emphasis on prevention and intervention and does not always embrace and implement evidence-based practices. One evidence-based practice that has potential for addressing these issues is schoolwide positive behavior supports. In fact, the IDEA 97 already requires IEP teams to consider positive behavior interventions and supports based on functional behavioral assessment for students with disabilities whose behavior impedes their learning or the learning of others. Much research supports the use of positive behavior supports for all children schoolwide. In order to meet the requirements of current mandates, states, school districts, and institutes of higher education must ensure that preservice and inservice personnel are appropriately trained. This presents a challenging task for all states. As Mizell (2001) pointed out, “for too long the professional development practices of too many school systems and schools have led nowhere. Year after year, their staff development has amounted to little more than a disparate set of adult learning activities with few demonstrable results other than participants’ mounting frustration” (pp.18-19).

Rural school districts, however, face additional, more daunting challenges when attempting to implement federally mandated changes. Rural school districts face stifling roadblocks when attempting to implement strategic changes such as inclusive education for students with disabilities and behavior problems. These roadblocks include a limited tax base for needed revenues, a need to deliver service over a wide geographic area, inadequate facilities, limited related services providers, high transportation costs, and a lack of access to effective professional development (Knapczyk, Rodes, & Brush, 1994; Helge, 1992; Howley, 1991). How then can rural school districts collaborate with institutes of higher education to design and develop high quality professional development? One suggestion is to conceptualize professional development from an evaluation perspective. Guskey (2002) emphasizes the importance of making evaluation central to the development of professional development to enhance its success. This evaluation must occur prior to the delivery of professional development, not just as the final stage as is often the case with traditional professional development. This paper proposes a conceptual model for the ongoing data-based design, development, delivery, and evaluation of professional development through a practical application of the model in a rural school district.

Conceptual Model

This design and evaluation (D&E) model (Mitchem & Wells, 2001) presents five steps (defining desired outcomes and impact, assessing context, developing content and process, evaluating impact, and evaluating outcomes) identified in the literature as critical in the process of gathering evaluation information regarding professional development (Guskey 2002; National Staff Development Council, 2002). Figure 1 depicts the D&E model and shows the steps necessary to effectively influence change in teacher practice, sustained use of that practice, and resulting improvement in student performance.



Mitchem & Wells, 2001

This paper describes one district's story of how it used the positive behavior supports process to identify specific barriers to PBIS and then to develop support strategies and resources to bridge these barriers and to facilitate systemwide change which was the desired impact and goal of the professional development. These steps included: (a) assessing the host environment or context in their school setting to identify specific needs and barriers to PBIS and identifying resources, supports, and strategies to bridge these barriers; (b) determining the content and process of the professional development to lead to implementation of PBIS and system-wide change; and (c) evaluating the impact and outcomes of training and PBIS implementation.

Assessing the Context and Identifying Barriers

Seven out of ten schools in the county had volunteered to participate in the professional development and had identified a site-based team that would attend training. Prior to beginning the professional development institute in School Wide Positive Behavior Supports, university faculty worked with the behavior leadership team in this county and examined school discipline plans, office referral data, and a faculty survey of perceived behavior problems and their locations in the county schools. In addition, each school completed a PBS Evaluation Instrument that asked school teams to identify the presence or absence of a number of elements identified as integral to a school with high implementation of SWPBS. The results of this assessment identified the following barriers to SWPBS for this district: time, financial concerns, a high turnover of teachers, a large number of unqualified and underqualified teachers, a relatively widespread conviction that PBIS was a "special education thing", and a widely held commitment to punishment for inappropriate behavior. On the other hand, the district also had access to the following resources and supports: a successful grant-writing special education director; support from the regional education support agency, and most importantly, a committed group of individuals who all had a common vision for the district.

Determining Content and Process

On the first day of training it was important to determine where each school was in the SWPBS process. A number of activities were designed to elicit that information School-based teams began by completing the Effective Behavior Support (EBS) Survey (Lewis & Sugai, 1999) to identify what components were in place and what they

wanted to work on during the institute. Participants also completed a school climate questionnaire (*Organizational Health Inventory for Elementary Schools or Secondary Schools* as appropriate) (Hoy, Tartar, & Kottkamp, 2002). The challenge in any professional development is to make it meaningful for all participants. These instruments provided additional information on the host environment as well as serving to help participants identify potential barriers and supports prior to determining details of the content and process of the professional development. The next step, then, for each school team was to complete a School PATH (Planning Alternative Tomorrows with Hope) (Pierpoint, O'Brien & Forrest, 1992). This is an organizational tool that facilitates strategic planning as well as team-building. Participants had to identify the dream for their school, their goal to be reached in one year's time, and then move back to the present to use the data collected previously to describe their current situation. From this point, participants identified resources and supports, including community partners and other agencies, developed action steps to reach their goal, and finally, developed an agenda for that day of the institute. Teams then worked on their agendas while the two university faculty and three district facilitators monitored and assisted as necessary. Each day ended with the school team developing their agenda for the next day (with measurable objectives) and a barriers and bridges activity in which teams identified at least one barrier they had identified and one bridge. These were shared with the other schools before leaving and then the next morning opened with a brainstorming session to allow participants to share any revelations or epiphanies they had experienced related to the barriers presented the previous evening.

Evaluating the impact

The 4 day institute concluded with an outbriefing in which each school identified what they had accomplished, what they saw as immediate needs, and barriers to implementation. Participants also evaluated the professional development activities. The following training products were collected and evaluated: (a) each school's identification of structural and environmental obstacles to positive behavior supports; (b) each school's identification and definition of expectations across each setting; (c) each school's lesson plans for teaching expectations; (d) a list of strategies to overcome faculty resistance; (e) each school's system for collecting, summarizing, and analyzing data; (f) plans and activities developed for opening day presentations to faculty, students, and parents; (g) a description of the incentive systems (the practicalities and logistics); and (h) plans for obtaining funds. In addition to these products developed during the training, new district wide discipline referral forms for elementary and secondary schools were designed to facilitate data collection and summary across schools and a collaborative grant was written by district and agency personnel from mental health and juvenile justice.

Evaluate outcomes (SWPBS)

The following data have been collected to evaluate the outcomes of SWPBS implementation across all seven schools: office referrals; targeted appropriate behaviors; attendance; in school suspension numbers; standardized test scores; student teacher, parent, and community satisfaction data; level of interagency collaboration, number of students referred for special education; number of students placed in special education, and number of students referred to alternative settings. The results of this evaluation are reported elsewhere (Mitchem, Richards, & Hill, under review). These data are then used to begin the cycle again. That is, data collected on the outcomes of training and implementation are used to describe the current climate and level of SWPBS implementation in the county. This provides the starting point for determining the next goals for the district and for developing the next set of professional development activities designed to meet those goals. The cycle begins again.

Summary and Conclusions

A continuing challenge in education is to improve the translation and use of research findings for educators, policy makers, and other stakeholders (Carnine, 1997; Gersten & Brengelmann, 1996). Research on this issue suggests that research findings seldom find their way into classroom practice and are implemented poorly even when they do (Cuban, 1990). Simply mandating a best practice is insufficient. Teachers must also receive training and ongoing support in the best practice to carry out the federal mandate (Guskey, 1995; Guskey & Sparks, 1996). Administrators' and teachers' concerns about inadequate preservice and inservice training have become even more pressing with *No Child Left Behind*. This paper described an approach to designing, delivering, and evaluating professional development to ensure that capacity is built within and across school buildings, partnerships are forged with other agencies and stakeholders, data-based decision-making is integrated into the process and that professional development is linked to student outcomes.

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**DEVELOPING SITUATIONAL LEARNING EVENTS:
A PRACTICAL MERGER OF REAL-LIFE EVENTS
WITH CONTENT INSTRUCTION**

*Why do I have to learn this?
What good is this going to do me?*

Mantras such as these can be heard in the hallways and classroom throughout the world. The practical and integrative use of many skills students are required to learn are not inherent in the classroom lessons. The issue is often not the usefulness of the skill to daily life, but a lack of connection between the classroom instruction and the reality of students' daily life. The following article is designed to provide guidance in not only integrating classroom taught skills into students' lives, but to use daily life activities to actually teach academic skills.

"Children learn for the sake of learning; their minds seek knowledge like the eye seeks light" (Locke, 1693 p. 118-119). Learning is not a difficult process. All children learn to communicate, develop motor skills, internalize social morays, etc., all before school age. However, one important distinction between all these pre-school age skills is that the child had an inherent "need" to develop these skills. Once a child reaches school age the "need" element is often separated from the academic instruction. There would be little argument that good writers need to intimately know the parts of speech. In schools today the eight parts of speech are taught almost universally but the practical nature and immediate application are absent in many classrooms. The immediate use of the new skill has been replaced with worksheets and a promise that someday the students will value the instruction. Unfortunately, when the student does reach a point where knowledge of nouns could be useful, the rote recall fails to offer a practical solution.

The practical application of academic instruction is not a new issue to education. While Locke recognized the connection in the 1690's, more contemporary scholars are voicing the same concerns. Bloom (1976; 1971) in the development of the Taxonomy of Cognitive Objectives noted that Knowledge and Comprehension, the lowest levels of knowing, are more passive. The active levels of learning begin with the Application level and as such promote all the higher levels. When a young person is learning to drive an automobile a parent or school system would be negligent if they stopped the instruction with the teaching of the Driving Manual. The student must get behind the wheel with a mentor to guide and facilitate their skills development if he/she is to become a competent driver. Bloom also indicates that if a person is given instruction with *Application* of the skill as a focus, the student will go on to use the skill in Analytic, Synthesis, and Evaluative ways once he/she has mastery of the skill. The implication being that the more a student uses and masters a skill the more advanced his/her thinking becomes, which is the goal of all quality education programs.

Gagne', Briggs, and Wager (1988) noted that the things students should *know* and more directly *know how to do* often do not resemble the subject categories in a school system. Gagne' contends that the human activities which schools are responsible for teaching are derived from societal needs. However, the instructional process must translate the societal needs into academic goals and then provide an instructional process. One of Gagnes' Instructional Events, the nine events that constitute an effective lesson, specifically addresses the process of retention and transfer. He notes that instruction should include a means by which information and processes can be retrieved for practical use. Effective teachers challenge students to actively use the information they possess to

interact in a variety of practical contexts. Thus a variety of context for learning becomes a vital precondition for the skills to effectively bridge the chasm from the classroom to life and societal skills (Gagne' & Driscoll; 1988).

Madaline Hunter (1982) stressed the importance of using experiences from the students' lives to make learning meaningful. Her emphasis was on using content relevant experiences within which new skills could be grounded. This previous experience gave a context from which the new skill could be embedded and elaborated. Hunter noted that, "Transfer is one of the most powerful principles of learning" (p. 107). The student's prior knowledge influences the way new skills and information is processed and in turn impacts the student's ability to use the new information in current and future situations. While not all students enter the classroom with equivalent experiences it is important that the instruction ties the new skill to what the student has experienced and at the same time provide an enriched contextual experience within the classroom.

When students can identify with a skill's practical application to life experiences, prior or current, the intrinsic motivation factor increases (Brophy, 1998). Brophy notes that the use of characters with which the students can identify, use of novelty and unusual content, things that are important to students in their lives outside the school environment, and content that evokes intense emotions are all effective ways to focus student motivation. Students' motivating can be aroused by student-centered content; this is a bonus to the impact contextual embedding of skills has on the learning.

By exposing students to situations that take advantage of their natural curiosity learning can be promoted. Kamii (1985) citing Piaget's work noted that children are motivated to construct knowledge for themselves and that the constructed relationship (logico-mathematical) based on interaction (sensory based) with the physical environment is much more important than any empirical learning. For example, when a toy manufacturer makes a product they create many near-identical toys. However, when a child gets one of the toys and plays with it and develops an experience base with that particular toy it is no longer like all the rest. To an outsider it may appear that all the toys are alike but the child knows better. When a student constructs a concept that rational learning has a profound and lasting impact on the student cognitive structure and hence life decision making tools. Educators have a choice of constructing the information for the students and trying to coerce them to ingest it or develop an environment where students can actively construct their own understanding of a concept.

All of the above theorists and researchers found that learning within a contextual environment is not only more motivating but also more effective. They also note that the more relevant the context is to the students' past and present life experiences the more effective the learning and the more divergent the students' ability to use the skill in the future. Based on these findings a systematic process began to develop lessons that incorporated students' past experiences in designing learning activities that would emulate the real world experiences students encounter while at the same time teaching core content skills. The goal in developing content activities was not only to incorporate contextual skills from student experiences but to make the learning experience as reality based as possible.

One of the practical benefits of contextual based assignments is that materials are typically readily available and in many cases come straight from the students. Newspapers, magazines, businesses, etc. are readily available sources. Students are constantly bombarded with pieces of information that provide highly motivating opportunities for content teachers. A recent advertisement had two-liter Coca-Cola bottles on sale for \$0.99 for the first two and then back to the regular price of \$1.39 for each additional bottle. Such simple, common advertisement offers teachers great fodder for creating a content rich curriculum. The interest factor and relevance to the students' world is an integral part of the dance that occurs in highly effective classrooms.

The first and second examples below are designed to model lessons that are contained within the classroom. Examples three through five begin in the classroom but extend far past the normal boundaries.

Title: Cooking For . . .

Content Area(s): Mathematics and Language Arts

Description: Students are given a variety of bowls with the dry no-bake cheesecake or jello type mixes already poured into each. They are then given the box with the directions on it. Each bowl contains 1.5 to 5.3/4 mixes. The students, working in pairs, must determine through weight how many mixes are in their bowl and then multiply the other required ingredients appropriately. The bonus to this process is that when they finish the product they get to eat their assignment. The draw back is that if they do not calculate it carefully their treats are less than delightful. Students kept a log of their thoughts and how a decision was made on what ratios were used. They concluded the activity with a "tasting essay" that consisted of a complete description of the activity and the varied tastes of success.

Title: School Newspaper Production

Content Area(s): Language Arts, Math, Art, Social Studies, and Photography

Description: Students in four Language Arts classes began writing and publishing a Middle School newspaper on a weekly basis. Each class would put out one edition a month that included current events in the school, moments in history, book and movie reviews, community events, sports, a classified section, and original cartoons. Each edition would also include two supplemental sections that were pertinent to the interests of the students that were writing that particular edition. The high school yearbook staff also provided valuable support and mentoring to the middle school students.

Title: City, County, & State Newspapers

Content Area(s): Mathematics, Language Arts, Computer, Social Studies, and Art.

Description: Students review on a weekly basis, stories from the local, county, and a statewide newspaper. The students read and analyze the different writing styles and where the emphasis is placed regarding the information that is included in articles from each news source. Students also kept track of the different types of articles that were written as well as the weather and other demographic information. Their observations are then charted and graphed using standard paper and pencil techniques as well as spreadsheets. The data is discussed and written about in their weekly journals. A lot of the problems and situations that are used in the daily instruction are also derived from the newspapers and the supplemental inserts. Contrasting newspapers as a class project helps students become aware of what is happening in the world around them as well as how to be a wise consumer of news stories.

Title: Wooden Working

Content Area(s): Math, Art, & Language Arts

Description: Students working with geometry content were given a series of patterns taken from magazines, tracing, rubbings, etc. The students then adjusted the patterns proportionally to fit 1" x 6" x 10" wooden blocks. The transfers were then cut out with a safety-scroll saw and the students painted the designs. After the initial set was constructed students began designing their own patterns. As the students completed each pattern they would write up a "personalized" history for the pattern and subsequent product. In the spring of the designs became more complex as students began designing and building uniquely designed birdhouses. Students had to do research on the different types of birds, preferred habitats, and nesting behaviors. The birdhouses were then constructed based on their research. A personalized history of the birdhouse was written as well as a brief review of the species of bird it was designed to attract. The birdhouses and toys were sold at various school functions as well as donating them to local organizations.

The funds raised by these activities were managed by the students, with the help of a local banker. Each year the students paid for their own fieldtrips, special events, and made a yearly purchase of plants for spring landscaping at the school.

Title: Wrinkle Painting T-Shirts

Content Area(s): Mathematics, Art, and Grammar & Composition

Description: Wrinkle painting is a process that uses directional spray of paints onto an artificial topography created by wadding or swirling material (Palmer, 199x; Salyer, Palmer, McCarthy, & Necco, 1996). The students utilized the wrinkle painting process and became quite talented in creating unique designs. Students then began to sell their wrinkle painted T-shirt at school events and even local businesses. The students were in charge of ordering materials, production, marketing, and the financial management of the proceeds. These proceeds were then used to pay for class fieldtrips and classroom activities. The students utilized their classroom math, art, grammar, and composition skills in a practical and meaningful way.

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Title: Political Cartoons

Content Area(s): Social Studies, Art, and Language Arts

Description: Student study political cartoons from the newspapers and magazines. After doing a review of political cartoons and researching the cartoons of different times in history, students begin drawing their own cartoons. The cartoons are accompanied by the relevant story that inspired the creation of the cartoon. Students refine the drawings with the help of mentors from the local art and newspaper world. The students create journals that represent their feelings about the news stories that inspired each cartoon. A copy of the original news story(ies), a copy of the student's journal entry, and a signed copy of the cartoon is then put on exhibit as well as made available for sale. All proceeds from the art show and subsequent sales can be used to fund additional student-selected projects.

While it is well noted and accepted that situational learning is a more time consuming approach to knowledge it is arguably a much more direct path to wisdom. Rousseau noted in Emile that the most important and useful rule of education is "Do not save time, but lose it . . ." (1762, p. 67). This is true today more than ever, as education faces the demands of high-stakes testing and content standards. The efficiency methods of teaching children knowledge is not, in the long run, effective in developing the wisdom for life. The situational learning events noted in this paper are not replacements for the curriculum currently in use but a way to integrate the skills of current knowledge base curriculum into the world of practical use, in hopes of promoting the development of the person and not just academic content.

The works of theorist such as Locke, Gagne, and Piaget encourage teachers to recognize the active nature of children in designing curriculum, especially daily classroom learning activities. Lessons that are designed not only to actively engage students in the learning but to create learning situation where students are developing the social competencies required for their life outside of the school building. By integrating student interests, life skills, and academic curriculum into self-contained units or longitudinal projects is essential if students are to become emotionally immersed in learning. Application learning that involved life skills provides a motivational impetus to develop new skills and continue to hone existing skills in a way that textbooks, drill and practice, and paper/pencil testing cannot. What teacher would not love to have class after class of students that are excited about the work they are doing and strive constantly to improve their previous effort. Real-life project based education has the capability to produce such classes.

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*POSITIVE MOTIVATIONAL STRATEGIES FOR CHILDREN WITH AUTISM AND OTHER DEVELOPMENTAL
DISABILITIES*

Identifying positive reinforcers is critical to the success of many educational practices including interventions designed to increase desirable behaviors and interventions designed to decrease undesirable behaviors. Thus there is a need for effective methods of identifying potential reinforcers for specific individuals. Stimulus preference assessment (SPA) is a systematic technology for predicting reinforcer effectiveness. This paper first reviews several specific types of stimulus preference assessments, and then presents detailed instructions for administration of the Brief Multiple-Stimulus Preference Assessment (Carr, Nicolson, & Higbee, 2000).

Pace, Ivancic, Edwards, Iwata, and Page (1985) investigated a method of identifying reinforcers for several individuals with profound mental retardation. The procedure developed by Pace et al. involved presenting a single stimulus to the individuals and measuring approach to the item. Each stimulus was presented several times and preference was determined by the percentage of times an item was approached. This procedure was successful at identifying reinforcers for individuals with severe disabilities, but tended to overestimate preference and did not provide a ranking of more to less preferred items.

Fisher and colleagues (1992) extended the procedure developed by Pace et al. (1985) by presenting stimuli in pairs (Paired Stimulus method) and measuring approach. In this "forced choice" method every item is paired with every other item, and the percentage of times an item is chosen when it is available is the measure of preference. This method is more precise than the single stimulus method. It allows the items to be ranked according to preference and accurately predicts preferred items. The amount of time required to complete preference assessment using this procedure, however, may make it impractical for use on a frequent basis.

As the technology of SPA continued to develop DeLeon and Iwata (1996) compared three methods of preference assessment: paired-stimulus, multiple-stimulus without replacement (MSWO), and multiple-stimulus with replacement. Their results indicated that the multiple-stimulus without replacement method produced rankings similar to those produced by the paired-stimulus method, but took only about half the time to administer. In an effort to further increase the efficiency of MSWO preference assessments, Carr, Nicolson, and Higbee (2000) studied reducing the number of stimulus presentations from five to three. They found the brief MSWO assessments could be completed in about five minutes, and were effective in predicting stimuli that act as reinforcers. Student preferences likely change over time, so it is important to have preference assessments that can be administered frequently to ensure the items offered as reinforcers are items the individual prefers. The more efficiently the assessment can be administered, the more feasible it is to assess individuals often, making it more likely that the items being offered to them are currently preferred items.

The procedures developed by Carr, Nicolson, & Higbee (2000) for running the Brief Stimulus Preference Assessment are presented below, along with a data collection sheet to be used with these procedures.

*Procedures for Running the Brief Stimulus Preference Assessment
Carr, Nicolson, & Higbee (2000)*

The following is an outline of a brief stimulus preference procedure (SPA). This is a SPA "without replacement" procedure. This means that once an item is selected, it is removed from the array and not replaced. Thus, there are initially five items available, then four, then three, and so on.

How to run the SPA:

1) Identify four items the student requests or generally responds to well plus one new item. If edibles are in the array, be sure to break them up into small bite size pieces before presenting them to the student. In the case of a

drink, present only a small amount in the cup so the student can drink this amount quickly and be finished with access to the drink.

2) Allow the student to briefly sample each item (eat or drink a small portion of edibles or briefly engage with non-edibles).

3) Place the items on the table with equal distance between them. The student should be seated in front of the table with easy access to all of the items.

4) Say, "Pick the one you want", to the student, and allow him/her to choose one item. If the student attempts to grab more than one item, block access to the other items. (You may have to be very quick in order to assess which item was chosen first and to prevent the student from getting any others). Write the number next to the item on the data sheet according to the order in which it was chosen (e.g., write a "1" next to soda if soda was chosen first).

5) Pull the table away, or otherwise prevent access to other items until the first item the student selected is either consumed (in the case of an edible) or until 10 seconds has passed (in the case of a tangible). After this period of time, remove the item from the student's hands and put it out of sight. Arrange the remaining four items as in step 2 and center them in front of the student.

6) Steps 3 and 4 will be repeated until all items have been selected and no items are left, or until the student does not select an item within 10 seconds. If the student fails to select an item within 10 seconds, score all of the remaining items as "5."

How many times to run the procedure:

1) As a rule, you should run the procedure 3 times. If you seem to be able to get reliable results running it one or two times, that's fine.

How to rank items:

1) Add the ranks for each item in columns 1, 2, and 3 and record this number in the "Sum of 1, 2, & 3" column.

2) Rank the items based upon the numbers in the "Sum of 1, 2, & 3" column, with the smallest number being ranked #1, the second smallest ranked #2, etc.

What do the results mean?

1) The results of this procedure are of crucial importance to you as the teacher. As you know, when a student is not interested in the items you are trying to use as "reinforcers", his/her responding is poor. This procedure will help you to identify items that will function as reinforcers for the child. Research has shown that these items are more likely to serve as reinforcers than those that are chosen in a less formal way.

2) Use the top two (or maybe three) choices from the SPA as possible reinforcers for your session.

When to run this procedure:

1) Run this procedure before each teaching session.

2) Repeat this procedure even within your own session if you notice a significant drop in the student's rate of correct responding or if the student does not appear interested in the items you are currently providing as reinforcers.

Brief Preference Assessment Data Sheet (Carr, Nicolson, & Higbee; 2000)

Student: _____ Classroom: _____ Assessed By: _____

Date: _____ Time: _____

Stimulus Items	Rank by Trial			Sum of 1,2,& 3	Overall Rank (Smallest sum is #1)
	1	2	3		
New Item					

Student: _____ Classroom: _____ Assessed By: _____

Date: _____ Time: _____

Stimulus Items	Rank by Trial			Sum of 1,2,& 3	Overall Rank (Smallest sum is #1)
	1	2	3		
New Item					

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**GLOBAL RURAL AUTISM ASPERGER INFORMATION NETWORK:
A DISTANCE LEARNING INSERVICE TRAINING PROGRAM**

"I really enjoyed being able to take such a high quality course online."

"I loved the power point lectures off the Internet. It was so nice not to have to go to the campus. The on-line assignments were great."

"The chat sessions were very beneficial to hear different opinions and information. A lot was gained through this format. The discussion board threads had you not only think of the diagnosis for each case study, but then take into consideration others' views."

The preceding comments are typical of those we hear from the online students who participate in our distance learning autistic spectrum disorder (ASD) training program. These students work with children with ASD and/or their family members. Thus, our students represent an array of experienced professionals (e.g., speech and language pathologists) who work in remote, rural communities throughout the northern great plains. As is the case with most professionals who work in rural communities, our students are generalists rather than specialists (Boe, 1993; Helge, 1984; & Rios, 1987). Consequently, their need for highly specialized training in the area of ASD can't be overstated.

The Global Rural Autism Asperger Information Network (GRAAIN) provides access to just such training. This is a graduate level, professional development program. Its purpose is to provide *Highly specialized training focusing on research-supported interventions* (Bock & Wernau, in press; National Research Council, 2001) *for early intervention personnel, general and special educators, and related services personnel* who serve children with ASD and their families in *remote, rural regions* of the United States. More specifically, this program builds participants' (a) knowledge regarding ASD, (b) skills to work effectively with persons with ASD, and (c) skills to collaborate effectively with other caregivers and family members who serve these persons.

This program uses a distance learning delivery model, i.e., involving use of a computer with Internet access, CD-ROM, and audio capabilities, a video camera, and a printer. Class lectures are posted on the course Web site as RealPlayer movies. Students view these lectures, complete assigned readings and other related activities, and participate in one 45-minute synchronous chat session each week and asynchronous discussion forums intermittently throughout the semester. Grades are derived from chat session participation, discussion forum participation, and independent project completion. Projects involve direct work with children with ASD and/or their family members. Projects are videotaped and shared with the class via the class web site.

GRAAIN Training Program Faculty

Currently four faculty members teach in this certificate program: Drs. Marj Bock, Don Daughtry, and Karen Hurlbutt as well as Ms. Phyllis LeDosquet, doctoral candidate. Their backgrounds include special education and music therapy, counseling psychology, social work and special education, and early childhood

special education and visual impairment, respectively. In addition, numerous faculty members from the University of North Dakota serve as guest lecturers for these courses.

GRAAIN Training Program Elements

Multidisciplinary. This program relies on a multidisciplinary approach to facilitate training. From course development to course delivery, this multidisciplinary approach is evident. To date, participants represent the fields of early childhood education, early childhood special education, general education, special education, speech and language pathology, occupational therapy, physical therapy, school psychology, educational administration, recreational therapy, and clinical psychology.

Autistic Spectrum Disorder Graduate Certificate. The University of North Dakota issues a special graduate certificate in Autistic Spectrum Disorder. This program requires successful completion of 12 graduate credits, 8 required and 4 elective. The required courses follow:

- 1) T&L 560 *Introduction to Autistic Spectrum Disorder (2 credits, graduate)*
- 2) T&L 561 *Methods for Autistic Spectrum Disorder (2 credits, graduate)*
- 3) T&L 562 *ASD: Supports Across the Lifespan (2 credits, graduate)*
- 4) T&L 563 *ASD: Medical Issues and Trends (2 credits, graduate)*

The elective courses offered by the University of North Dakota follow:

- 1) T&L 564 *Structured Teaching (2 credits, graduate)*
- 2) T&L 565 *Methods for Students with Asperger Syndrome (2 credits, graduate)*

All six courses are offered via the Internet only.

National Professional Development. Since this program uses an Internet delivery model, participants come from anywhere in the nation. Thus, this program facilitates resource sharing nation-wide. For instance, the Minnesota Department of Children, Families, and Learning has developed a manual to provide additional training for paraeducators who work with children with ASD. Several participants from Minnesota have shared this manual with participants from North Dakota and South Dakota.

Co-Teachers. Each of the courses in this program has either a parent of or a person with ASD as a co-teacher. The co-teachers work with faculty to design, deliver, and revise course activities. They share resources with faculty members and participants. Participants often mention how beneficial these co-teachers are to the overall worth of each course.

CD-ROM Teaching Demonstrations. The faculty member and co-teacher develop a CD-ROM for most courses in this program. These provide demonstrations of research-supported interventions (e.g., applied behavior analysis, structured teaching, use of visual symbols) and formal and informal assessment instruments and processes. While these CDs help participants learn to effectively use these techniques, participants tell us that they are using the CDs to train their paraeducators and others who work with children with ASD.

Living Case Histories. One of the unique training challenges we face when providing professional development in such remote, rural regions is the lack of access to multiple persons with ASD. We developed the concept of living case histories to address this need. Thus we are currently developing between three and four living case histories for each of our courses. These will include video clips, assessment reports, and interviews with family members of and professionals who work with a child with ASD. We will check back in on these families every three years to get an update on the child's progress. Of course family members can decline to participate in this project at any time and their Living Case History will be deleted from the class Web site. Although we're just beginning to develop these, their power as an instructional approach for our program really can't be overstated.

Idea Exchange. We have 45-minute synchronous chat sessions once a week for each of our courses. We spend the final 15 minutes of each chat session discussing one of the participant's students. The participant provides descriptive information (without identifying the child) and the nature of the issue or problem the child presents.

Peers pose questions. They then brainstorm plausible solutions relying on research-supported interventions with suggested data collection systems to facilitate data based decision making for each plausible intervention. The instructor and co-teacher guide these discussions as needed.

Guest lecturers. Each course includes guest lectures from up to 6 national or international leaders in the field of ASD. These lectures ensure the multidisciplinary approach to the course as well as enrich the course content.

Field Experience Activities. Each course in this program contains independent projects that require participants to work directly with a person with ASD and his or her family. Thus the related field experiences for this program are actually embedded in the program coursework.

Family Member Audit Passes. Finally, we issue up to 6 family members a year "Audit Passes." These allow the family member to audit one of our courses at not cost as room permits. This facilitates the development of collaborative relationships between family members of persons with ASD and the professionals who work with these persons and their families.

GRAAIN Training Program Quality Indicators

Student Enrollment and Course Evaluation Data. In August of 2003 our first group of participants will complete this certificate program. Thus we do not yet have summative program evaluation data. However, to date 142 students have taken at least *one* course in this program. Eighteen of these have taken *two or more* courses. In August 2003, eleven of these will complete the program and receive an ASD Graduate Certificate from the University of North Dakota. Ninety-two participants are *North Dakota residents*, thirty-six are *Minnesota residents*, nine come from *other states* within the United States, and five are *Canadian residents*. Approximately 45% of our students are *special educators (K-12)*, 20% are *early childhood special educators (3 to 5 years of age)*, and the remaining 35% are *speech and language pathologists, occupational therapists, physical therapists, recreational therapists, school social workers, school psychologists, and special education directors*. It should be noted that we have one clinical psychologist in the program who plans to receive his certificate in December of 2003. We have also had a few university professors and one researcher take these courses. To date only four students enrolled in courses have dropped *any* of our courses.

The student course evaluations used by the University of North Dakota solicit survey responses to seventeen statements (i.e., strongly agree, agree, neutral, disagree, and strongly disagree) as well as short answer responses to two or more open-ended questions. The survey statements and open-ended questions follow:

- 1) This instructor is an excellent teacher.
- 2) I was challenged to think by this course.
- 3) The course was well organized.
- 4) Instructor appears to have a thorough grasp of subject matter.
- 5) Textbook (or other materials) was useful for this course.
- 6) Students felt free to ask questions or express opinions.
- 7) Instructor was willing to meet with students outside of class.
- 8) Instructor treated all students fairly and with respect.
- 9) Learning objectives and assignments were clear.
- 10) Instructor explained subject matter clearly.
- 11) Instructor is committed to high quality teaching.
- 12) Credit given for course was commensurate with work required.
- 13) Instructor informed students how they would be evaluated.
- 14) Instructor gave helpful feedback on assignments/exams.
- 15) Instructor graded assignments and exams fairly.
- 16) I would recommend this course to other students.
- 17) I would recommend this instructor to other students.
- 18) Describe and explain several aspects of this course that promoted your learning.
- 19) Describe and explain several aspects of this course that could be changed to increase student learning.
- 20) On the back add any other comments that you would like to make about this course or the instructor.

To date, 100% of our students either *strongly agree* or *agree* with survey items 1-6 and 8-17 with the vast majority of them *strongly agreeing* with each statement. Survey item 7 states, "Instructor was willing to meet with students outside of class." To date this item has received responses indicating that students *strongly agree*, *agree*, or are *neutral* in regard to the statement. The neutral responses on this statement lead the instructor's to believe that some student's aren't sure how to interpret the question when it is applied to distance learning courses.

In addition, the following narrative comments typify those students provide via the course evaluations:

"The written case study was a learning tool in itself. All the assignments help me in my program and teaching."

"Having a parent as a co-teacher [for this course] was an excellent idea. [She] was able to give us very valuable insight into what family life is like with a child diagnosed with autism."

"The living case history is WONDERFUL. Thank you to the parent co-teacher for her willingness to share this with us."

"I am currently taking my first course through the University of North Dakota's distance learning program. I can already see the benefits that the class has had, in the way I am working with students and planning/structuring their day. If this course were not available on-line, I would not have been able to take the course and learn new ideas/techniques that make me and will continue to make me a more effective teacher."

"Taking the Autism Spectrum Disorder classes online from the University of North Dakota has been one of the most rewarding experiences I have ever had from a graduate course. I will continue to take all the course[s] in the series. I'll always look back on what a positive experience these courses have been."

University of North Dakota Graduate Program Review. In addition to review from outside professional accreditation bodies (e.g., CEC), all graduate programs at the University of North Dakota complete an internal program review every seven years. This review is conducted by members of the Graduate Committee under the direction of the Graduate School Dean. The purpose of this internal review is to ensure that all graduate programs meet the University standards for graduate degree programs.

Lessons We've Learned Along the Way

Distance Model Development. The first step toward development of any distance program is the distance model development. The model must involve use of technology to which prospective participants have ongoing access. It must also involve use of technology that will facilitate the training program content (e.g., teaching demonstrations, sharing of student projects). And finally, the model must be "workable" for the faculty who will teach in the program. Personnel who work at the University of North Dakota AeroSpace Network helped develop the distance learning model currently used for GRAAIN.

Mr. Henry Borysewicz, Director of the AeroSpace Network, attended numerous meetings where the multidisciplinary team of faculty designing GRAAIN coursework discussed the needed content, references, learning activities, and student assignments. He posed numerous questions during these meetings. He sought clarification regarding our targeted participants, where they lived, and the technology to which they had ongoing access. This led to the development of a distance model that worked in rural regions of the Nation, that involved technology to which our students had ready access, and that was financially feasible for our students. Clearly this has helped us successfully market GRAAIN.

During these meetings, Mr. Borysewicz often said, "Tell me what you need, Marj, and we'll figure out how to do it." He and his staff did just that. There was literally no challenge, including helping our blind faculty member access the Internet and aptly teach class via the class Web site, too great for the AeroSpace Network staff. Certainly there are many other ways to deliver the GRAAIN training, but we have learned from Mr. Borysewicz and his staff the importance of relying on "low" rather than "high" technology for our distance model and designing the model to

fit the course content. Any future revisions in our distance model will occur only following additional consultation and guidance from the UND AeroSpace Network staff.

Online Learning Support. Critical to daily operation of any online program is ready access to technology support, for faculty and students both. As Dr. Karen Hurlbutt, one of our GRAAIN instructors, notes:

“As you know, the course that I teach is called *Methods for Teaching Students with Asperger Syndrome . . .*. This past fall was the first time this course was offered and it is a mild understatement to say that I could not have done it without the incredible support and assistance from the staff at CILT (the Center for Instructional and Learning Technologies). They trained me on how to use the course Web site, how to record audio power point lectures, how to upload Word documents for students’ use, and how to set up various files, to name just a few tasks. They responded almost immediately whenever I had a question or problem or needed some advice. What a great asset they are to us for our online courses!!”

At the University of North Dakota, CILT is one of the technology support groups available to faculty. Offering an array of services, Dr. Kathy Smart and CILT staff provide comprehensive support to faculty for the design, development, implementation, and evaluation of technology-enhanced face-to-face and on-line courses and programs. CILT staff pride themselves on the provision of service 24 hours a day, 7 days a week. There are eight full-time professional staff with expertise in instructional design, project management, graphic design and photography, video, multimedia production, webpage development, and presentation technology. Consequently GRAAIN faculty rely upon CILT staff to help them: (a) develop the course Web site, (b) design online learning activities, and (c) resolve technical difficulties that arise during the course. CILT is fully funded by appropriated dollars that are a part of the University general operating budget. Thus their services are offered to faculty free-of-charge through the UND division of Academic Affairs.

Technical support for students enrolled in online courses is also crucial. Students enrolled in GRAAIN coursework receive technical support from the UND College of Education and Human Development Technology Coordinator, Ms. Joneen Iverson. Through one-on-one support Ms. Iverson helps students: (a) Install needed plugins (e.g., RealPlayer, Adobe Acrobat), (b) access and use the course Web site, (c) access the course chat program, and (d) resolve technical difficulties that arise throughout the course. She also provides immediate support during the synchronous chat sessions for any student experiencing technical difficulties. Her clear directions as well as positive rapport with students are often mentioned as one of the strengths of the course on student course evaluations. In essence Ms. Iverson functions much like a team-teacher with GRAAIN faculty members (Ko & Rossen, 2001). The Technology Coordinator position is fully funded by appropriated dollars that are a part of the College general operating budget. Thus her services are offered to College students (and faculty) free-of-charge.

GRAAIN Program Funding. Online programs require additional equipment and so can be more expensive than on-campus programs (Bates, 2000). A separate budget derived from student tuition supports the GRAAIN program. This budget covers all needed supplies and equipment. It covers overtime salaries for some of our technical support personnel. Further, it covers our co-teachers’ salaries as well as stipends of appreciation for our guest lecturers. Finally, while three of the six courses in this program are taught as a part of regular faculty load, the remaining three are taught during the summer. This budget covers the teaching salaries for these remaining three courses. The budget is renegotiated every two years.

Summary

Starting as a pilot program to provide specialized ASD training to educators over four year ago, GRAAIN has grown into a successful Graduate Certificate Program consisting of six online courses. It is possible to create and sustain a quality online program if included in that program are; (a) knowledgeable faculty in the discipline, (b) partnerships with reliable and consistent technical support (Chute, et. al, 1997), (c) sound online pedagogy, (d) secure financial planning, (e) college and university based support, and (f) highly motivated students. The technology used in the course must be “available to and useable by all participants” (Palloff & Pratt, 1999). By recognizing a need, gathering a team of educators, technicians, designers, planners and developing a training program GRAAIN has not only made a significant contribution to the field of autistic spectrum disorders, but has also influenced distance education for other highly specialized training specific to low incidence disabilities.

Consequently, we anticipate that the GRAAIN model may be applicable to training needs for educators working with persons with low incidence disabilities.

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**UTILIZING PARAEDUCATORS AS LINKS TO THEIR COMMUNITIES – A TRAINING PACKAGE
FOR USE WITH TEACHER/PARAEDUCATOR TEAMS AND IN THE PRE-SERVICE TRAINING OF
TEACHERS.**

Introduction

Since the Education for All Handicapped Children Act (Public Law 94-142, 1975) each state must develop a Comprehensive System of Personnel Development to ensure that all education personnel are adequately prepared and receive appropriate continuing education. To develop a means of delivering a comprehensive system of training in a large rural state like Montana is difficult. Montana's 2001 population estimate was 904,433 (44th in population), although the state ranks 4th in size. Even Montana's largest city is less than 100,000 in population. Helge (1983) reports problems of rural environments include lack of educational resources and conflicts between school expectations and local norms. To address these problems, Montana has chosen to decentralize the CSPD process through the formation of five regional councils (Fishbaugh, Christensen, & Bailey, 1995).

The regional councils address professional isolation in several ways:

- Promotion of networking to enhance professional growth,
- Outreach from council members to regional educational professionals to help with meeting council goals and objectives,
- Collaboration of resources in the planning and initiation of staff development activities, and
- Connecting with other regions through State CSPD Council meetings to share information and support across regions (Fishbaugh, Christensen, Rude & Bailey-Anderson, 1998).

The Regional Councils have to meet specific responsibilities to receive financial support through the State Council. They must conduct needs assessments of general and special educators, develop a strategic plan to address training needs in their region, they must meet locally at least three times a year, and send representatives to the State Council meetings three times a year. Through these activities the Councils develop and carryout a plan to meet the region's training needs (Fishbaugh, et al, 1995).

The regional process for planning has proven successful. One area of success has been the implementation of state wide training initiatives in the local regions. Although this may seem counter to regional planning and development, the reality is that such initiatives are an important part of the process. The initiatives occur when regions find they have common needs and strategies to meet the needs are developed by the regional representatives

at the State CSPD Council meetings. Therefore, the statewide initiatives show regional planning, and not “top-down” state mandates. Examples of successful statewide initiatives coordinated through the regions include:

- Special Education Endorsement Project – providing training to rural teachers to be endorsed in special education,
- Montana Training for Inclusive Education Project – providing training on inclusion practices, and
- Montana Behavior Initiative – providing training to school teams to address the needs of students with emotional and behavior disabilities (Fishbaugh, et al., 1998).

Another statewide initiative that developed from an identified need across the regions involved working with paraeducators – roles and responsibilities, training, and supervision (Fishbaugh, et al., 1998). Through coordination with the State CSPD Council and regional CSPD representatives, the Montana Center on Disabilities developed a proposal to address paraeducators’ issues and in July, 1999 the Department of Education awarded the Montana Center a project (Grant #325N99046) to implement and evaluate the Paraeducator Development Project. The project used the CSPD Regions to develop and deliver a training program for using paraeducators as liaisons to the community to enhance educational activities. Part of the project was to assess the usefulness the regional CSPD approach in implementing the statewide initiative for paraeducator training.

With regard to outcomes, the regional approach was successful. The primary goal of the project was to develop a curriculum based on using paraeducators as liaisons to the community to enhance educational activities. This goal was accomplished and the opportunity to meet with large groups of paraeducators from various parts of Montana was especially helpful in gathering information related to the liaison role. The information gathered through the regions was presented in *Utilizing Paraeducators As Liaisons To The Local Community* (Hermanson & Hoagland, 2002). This information has been incorporated into a multimedia training program that is available through the Montana Center on Disabilities.

Besides outcomes, there was interest in reviewing the regional approach to training with regard benefits of the approach, difficulties of the approach, and lessons learned from the paraeducator initiative. The results of such an evaluation would help others in understanding the strengths and weaknesses of the regional CSPD model for delivering training in a rural state.

Method

Procedures

At the end of the third year of the Paraeducator Development Project, a focus group was conducted with regional and state CSPD personnel to evaluate the use of the regional CSPD model during the Project. The Project Administrator was the primary facilitator of the focus group and the two Project Directors and Project Coordinator helped with facilitation and recording of group comments. The focus group was two hours in length. The group comments were recorded on flip chart and the recordings were verified by group participants throughout the process.

Following the completion of the focus group, the information from the recording sheets was input into electronic format. The Project Directors sorted responses for duplicates and similar responses. Then the Administrator, Directors, and Coordinator independently reviewed the responses for themes. After the independent analysis, the group met and found consensus on themes and identified examples to describe each theme.

Participants

The focus group consisted of fifteen participants, in addition to the four facilitators. Participants included the regional chairperson and/or coordinator of all five Regions, the State CSPD director, and members of the state Paraprofessional Consortium. Regional chairpersons were charged with the administration duties of the Regional Councils. This included monitoring the budget, facilitating meetings, monitoring the activities of the coordinator, and attending State CSPD Council meetings. The regional coordinators carried out the plans of the Regional Councils including coordinating all training activities.

Findings

The following were the themes identified. Following each theme, are examples are from the focus group or Project staff discussion.

Strengths

1. By using the regional model, there were procedures and resources in place that the new training could utilize, providing for quick startup.
 - Experienced regional personnel were available to develop training announcements, set up training facilities, and other activities. During the first two years of the project, these activities were done on a volunteer basis by regional council members. In the last year, each regional council was provided with funds to hire a coordinator to carry out the activities listed.
 - The training has access to a wider audience by being incorporated into regional trainings with many sessions to choose from. The broader selection of presentations attracts a wider audience.
 - The regions have individualized their procedures to fit their area. This is done by recognizing what training schedules work best in their area, what local trainers are available for train the trainer models, and what facilities work best for various types of training. A new project gains access to information immediately by becoming part of the regional process.
2. By providing initial funding to support the new initiative, the regions were willing to incorporate a new objective to their scope of work. However, as the training becomes part of the region's planning process, they develop other resources to support the training.
 - The project provided \$5,000 a year to each region for offering paraeducator training if the region agreed to guidelines set by the project.
 - By the end of the three years, each region had incorporated further paraeducator training into their plans for CSPD funds.
 - Some regions had found other sources of funding for paraeducator training such as district training funds.
3. By having the initiative become part of the regional plan, it allows your program to be part of an ongoing required needs assessment process.
 - State wide data is available on the training needs related to your initiative, which helps get financial support for training.
 - The regional assessment provides information on specific local needs.
 - The process can be used to include questions that address concerns related to the training initiative.
4. Inclusion of the training in the local regional process promoted the importance of the issues and the implementation of system change in areas beyond training.
 - The Councils began using the term paraeducator rather than teacher aide.
 - The Councils became involved in trying to recognize the work of paraeducators.
 - The Councils began to include paraeducators as trainers.
 - The Councils became motivated to recruit paraeducators to the CSPD trainings and participate not just in the paraeducator training sessions, but other sessions offered as well.
 - The Councils began to consider training teachers and administrators about their roles when working with paraeducators.
 - The Council became aware of the importance of providing stipends to paraeducators to help them attend training and this practice continues.
 - The Council recognized that it was important for paraeducators to have an opportunity to meet with paraeducators from others schools for networking purposes.
5. The inclusion into the regional process brought the full network to the table for future planning related to the paraeducator initiative, which lead to planning beyond the scope of the original project that helped with sustainability.
 - Because personnel are in place to carry out training coordination activities, sustainability is more likely and there is not a need for project staff to carry out these tasks. In order to continue the training, all that is needed are trainers and keeping the content of training materials up to date.
 - Local trainers are in place after completion of the project if a train-the-trainer approach is used. Trained trainers are more likely to continue training because they do not have responsibility for the logistics of the training, therefore their primary responsible is training.
 - Community Colleges became interested in paraeducator training through interaction with the regional councils and began to develop paraeducator training programs.

- Besides, the Community College programs, the Universities began to look at career ladder development programs for paraeducators.
6. Having services to offer on an ongoing basis helps build bonds between the project and the regional team.
1. Because the project was willing to continue a paraeducator newsletter and maintenance of a paraeducator web site there remained a connection to continue to work together on paraeducator issues.

Weaknesses (not all weaknesses came from Focus Groups, the information was primarily garnered from Paraeducator Development staff interacting with the process over several years.

- There is difficulty taking on new initiatives if there is no seed money to start with.
- It can take time for a region to identify, recruit, and engage an adequate pool of stakeholders to establish a vibrant Regional Council. Commitment from state personnel to the concept needed to persevere during the formative stages of regional development.
- Local school administrators are still not as active as would be desirable in Regional Councils.

Lessons Learned

1. There is a need for distinct levels of responsibility between state and regions.
 - State Roles – Coordinate statewide activities that support initiative across the state and support activities of all regions
 - Provided guidance on curriculum related to paraeducator development
 - Produced *A Resource Guide for Administrators, Educators, and Paraprofessionals*
 - Coordinated statewide activities honoring paraeducators
 - Paraeducator of the Year awards and paraeducator teacher teams of the year.
 - Governor’s proclamation supporting paraeducators
 - Regional Roles
 - Determined specific regional needs
 - Coordinated trainings in the region
 - Identified regional resources
2. Foundation for those wishing to adapt the model
 - The Regional Councils need time to build their network
 - There needs to be ample time at Regional and State meetings and trainings for informal networking to build linkages in the Region and State.
 - State and regional responsibilities need to be clearly defined
 - Development and utilization of local trainers is vital to sustainability of training efforts.

Conclusion

Implementing a major training initiative in a large rural state like Montana can be an enormous task. This is true even when the staff charged with starting the training have familiarity with the state and a large network of potential collaborators. The responsibilities for logistics in doing training in many parts of the state can be time consuming and expensive. Even when logistics can be managed, the problems of attracting an audience and developing a local structure to sustain the training efforts remain. Having a local network in place that is aware of local resources, has the needed connections to efficiently make arrangements, and can incorporate the specific initiative into a comprehensive training program is invaluable. The Montana CSPD has developed a regional system of training planning and implementation that provides local networks possessing these important attributes. When planning training that involves school personnel, the CSPD network is a valuable asset in implementing the training. For other rural states with similar challenges to statewide training, the Montana CSPD model is an option that should be considered to help training initiatives in the state be more comprehensive, efficient, and responsive to local needs.

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ADULTS WITH ASPERGER SYNDROME: HOW THEY HAVE HELPED MY TEACHING

In the recent past, there has been increased interest in learning more about adults with autism. More articles, books, and stories have been published, and these adults, particularly those with high-functioning autism or Asperger Syndrome, are frequent guest speakers and panel members at national conferences on autism. They understand the value of having parents and professionals learn from them and see the need to educate others about autism (Hurlbutt & Chalmers, 2002).

This article is a discussion of how the author met three adults with Asperger Syndrome and developed friendships with them, and how all four of them continued to work together to educate others about autism.

Because of the author's interest and background in working with adults with developmental disabilities, including those with mental retardation, autism, and other related disorders and disabilities, she wanted to further explore the lives of those with autism, what they have experienced, what their thoughts and feelings were on a wide variety of topics, and how they felt about having autism. It would be necessary to work with individuals at the high end of the spectrum for the purposes of in-depth interviewing.

The incidence rate of Asperger Syndrome in North Dakota is increasing just as it is in the rest of the country, however, in this rural state, there are very few known adults diagnosed as having Asperger Syndrome. At the time of the original study (1999), the researcher was aware of only one. The Autism Society of America hosts a national conference each year and this was selected as the setting for the initial interviews for the study.

The original study

At the beginning of the conference, the author was approached by one adult with autism who recognized the hometown written on the nametag (Fargo) as being the name of a movie – Fargo! There's a movie called Fargo! The two continued to talk and explain why they were there. When this adult heard that the researcher wanted to interview adults with Asperger Syndrome, she graciously volunteered and promptly introduced the author to two others who also volunteered.

The initial visits were held during the conference and lasted approximately two hours. The author and the participants visited informally at other times during the conference as well. Over the next nine months, follow-up interviews were conducted over the phone and via e-mail. Each participant also shared copies of various articles, stories, and essays they had written over the years. Qualitative research methods were used for this study and notes and data were kept over the course of the nine months. Data were analyzed using qualitative research methods, including coding by paragraph, using key words that expressed the main ideas and clustering them into codes, which were collapsed into categories. From there, three main themes emerged from this data. The results of that study included the following themes:

1. High functioning adults with autism identify with their own unique culture (they view neurotypicals, i.e., persons without autism, as narrow-minded and they have no desire to be neurotypicals).
2. Support systems contributed to their feelings of self-worth (they believe that positive family involvement and support help individuals with autism develop skills necessary to be as successful as possible as adults and that the spiritual aspect of their lives and their connection to a church provided comfort and support).
3. They have developed opinions on a wide variety of topics, especially those related to autism, and have suggestions for what could make a difference in the lives of people with autism (group living arrangements and activities are dehumanizing, unemployment and underemployment are real problems for

people with autism, behavior issues need to be addressed individually and positively, individuals with autism need support to develop social skills). (Hurlbutt & Chalmers, 2002)

The online course

The overall main theme from this study was that they wanted to be considered experts in the field of autism and be consulted on issues related to autism. This theme was the basis for asking these adults to be a part of the course the author teaches at the University of North Dakota. The course is called "Methods for Students with Asperger Syndrome." It is an elective course in the sequence of interdisciplinary courses focusing on autistic spectrum disorders (ASD), specifically the students who function at the high end of the spectrum. The purpose of this course is to provide parents, teachers, and caregivers of individuals with Asperger Syndrome with background, knowledge, and experience with the diagnosis and characteristics, assessments, functional analysis, various methods and practices, transition planning, and support for families.

North Dakota is a rural state and it is a challenge to provide educational opportunities to teachers and college students all over the state, especially about a low-incidence disability, like autism/Asperger Syndrome. Sometimes, when a student with autism or Asperger Syndrome moves into a school district in rural ND, he or she may be the only student with autism the school will ever have! Or it may be ten years before another student enrolls in that particular school. The nearest city may be 200 miles away, which makes it almost impossible for parents and school professionals to obtain needed information. They resort to paying for consultants from the larger cities to provide short-term support and recommendations for school programming. The University of North Dakota now offers a certificate in autistic spectrum disorders, all conducted online. This program was developed by Dr. Marjorie Bock of the University of North Dakota.

Each of the courses has a website which students (who are usually teachers and parents from around the state and nearby Minnesota) utilize to view and listen to audio power point lectures and other materials that are downloaded for each week's chat session. Small groups of students log on each week and "chat" about the topic of the week and share ideas and suggestions with each other.

After the original study was completed, the author and the three adults continued to stay in contact, mostly through e-mail. The adults talked about the conferences at which they presented, the trips they took, the weather, politics, current events, their families, and relationships. Their interest in wanting to continue spreading the word about autism and being a part of new opportunities to do so was ever-present. When the author started planning for the new "Methods for Students with Asperger Syndrome" course, she felt it would be a great benefit to this course to have the three adults serve as guest lecturers, or co-teachers.

All three adults were very interested in being a part of this class. Even though they had participated in intensive interviewing for the original study, they agreed to do two interviews each for the class. The first set of interviews was about their experiences growing up, their families, their school experiences; and the second set was about their experiences transitioning into the adult world and what it was like being an adult with autism.

Also, all three communicated with the students in the class via e-mail. The students e-mailed them about questions they had regarding programming, social skills, vocational training, behaviors, etc., and the adults responded to each of the e-mail questions, promoting other questions and more communication between the students and the adults with Asperger Syndrome. The three adults are Xenia, Joe, and Eugene (pseudonyms). Xenia is in her 30's and lives in a city in the interior west section of the United States. Joe is also in his 30's and lives in a city in the Midwest. Eugene is in his 60's and lives in the northeast section of the United States.

In the first set of interviews, they talked about what it was like for them growing up, what their families did for them, how they did in school, what problems they faced in school, and how they overcame some of the problems. The following is some of the information they shared in their interviews for this course.

Xenia

Xenia shared that she was from a large family of eight children and that, when she was tested at age 3, her IQ was reported to be 48. She did not start talking until age 4. She knows she *would have been institutionalized* if she did not start talking by age 5. Her father made her siblings spend 15 minutes a day with her, playing cards or other games. She believes this helped her develop social skills, like turn-taking, problem solving, sharing, etc. Xenia recalled the years in her past, from 3rd grade to 10th grade, when she was *made fun of and teased because of not fitting in*. Her interests were very different from the other girls, who wanted to talk about boys, clothes, and music. Xenia was interested in countries, flags, and communism. She shared that she has always disliked reading fiction because *it is not literal enough for her*. She received *LD services in school* but was not officially diagnosed as having autism until she was in college. She has a college degree in Political Science but has never been able to work in a job related to that degree. She has worked in group homes, as a janitor, and has done data-entry work.

Joe

Joe is a passionate and sometimes sarcastic individual, which came through during the interviews. He described himself, early on, as being a runner and has having echolalic speech. His parents were also told that he was mentally retarded. He was diagnosed as having autism at age 3 ½ and again at age 6. His mother diligently worked at finding appropriate school programming for him. He described how he was placed in an EMH classroom, even though he could read the encyclopedias in the room. He has a great deal of respect for his mother as she was a very strong advocate for him as he was growing up. He described in great detail, about how he was bullied and harassed every day from 6th grade to 10th grade. He never wanted to tell on the bullies because even then, he knew that it would be worse if he told. He internalized those feelings and shared during the interview that after intensive counseling regarding these incidents, he was able to forgive his tormentors after releasing the anger he had internalized. Joe has two Master's degrees and finally has a job where he can utilize those skills, after working at several jobs, most of which he was unsuccessful.

Eugene

Eugene is several years older than Xenia and Joe but some of what he shared was very similar. When he was growing up, virtually nothing was known about autism. He, too, was given many labels, including mental retardation, deaf, and everything else. He has memories of rocking in his crib when he was a baby and of making up nonsense songs of the street names in his city. He shared that he did not like school but did better when he enrolled in a preparatory school, which he liked because of the structure which he did not have in the public school setting. Eugene has a college degree in Speech Correction but was told by his supervisors that he needed professional help and was not allowed to finish student teaching. Eugene talked about the difficulty he has always had in regards to social situations, most especially about relationships with women and finding and maintaining jobs.

The students in the "Methods for Students with Asperger Syndrome" class enjoyed listening to these interviews.

The following are some of the comments they made regarding the interviews:

- *These were interesting interviews and it made me sad as to how unaccepted these individuals were with their peers. We have a lot of education to do with schools in this area!*
- *These three individuals were very, very interesting to listen to.*
- *I found it interesting to hear him talk about the "refrigerator mother" theory and the influence Bettelheim still had on practitioners in the 70's and beyond.*
- *We learned what really bothers her and that is good and helpful for us as teachers.*
- *It made me very sad that he was picked on and teased so much. That is one*

thing that I worry about continuously with the kids on my caseload.

- *Listening to these three speak about their lives and what they went through was very beneficial. I hope that it will help me to become a better clinician and not always jump to conclusions about what or why my students are reacting the way they do.*
- *I would like to share these stories with my students and their parents. I think it would be helpful for them to hear about what adults with autism can do.*
- *All three of these interviews were very interesting and helpful. I look forward to hearing more from these people.*

The students in the class had the opportunity to do just that. They read parts of the original study which gave them more information, in addition to the interviews. The second set of interviews included information about the experiences the adults had with their jobs, mental health concerns, unmet needs in the community, and other issues related to being an adult with autism. The assignment for this set of interviews was for the students to send an e-mail to all three of the adults and ask them questions they had after listening to the interviews. The adults replied immediately in almost all cases and shared advice and their own personal thoughts on the subjects. The following are some of the questions and answers:

- *Q: Do you have any suggestions as to how to approach the area of social skills instruction? A: My idea is one that has been done for other students and people on the autism spectrum and it is called the circle of support. If people used this, the person on the autism spectrum would learn the proper way to deal with situations.*
- *Q: I asked her what she thought about the teaching strategies of ABA and TEACCH. Her response was that taking the best qualities from both would probably be the most beneficial. She liked the eclectic approach.*
- *Q: I am concerned about a fifth grade student with Asperger Syndrome who is on my caseload. He is trying desperately hard to fit in and be like the other kids. What can I do to help him be educated on autism and how to be a self-advocate? A: True, he does need to be educated about autism and how he does things. It is not a sickness, disease, disorder, or all that garbage. It is a different style of thinking, perceiving, and reacting, which comes from a difference in the hardwiring of the brain. We are a minority in a differently hard-wired world.*
- *Q: What can I do to help introduce legislation in my state in regards to law enforcement officers and the problems people with autism have with the law? A: In my state, police officers are already being trained in working with people with disabilities, including autism. In your state, it would be practical to have a class for police officers. It should be taught in the police academies of that region.*
- *Q: What could I have done for you if we had met many years ago? A: I can't say but maybe you could have done what (the author) did in meeting my friends and me to do the study. It would have been a breakthrough in the understanding of those of us with autism. Perhaps now you could be an autism awareness ambassador along with your family.*
- *Q: How can employers modify the work environment to meet the needs of adults with AS? A: Whatever sensory problems that particular adult has, modifications can be made. Allowances such as ear plugs being worn can be allowed, maybe not playing the radio would help. Maybe the ringing of the phone could be muffled or the lighting could be changed so it doesn't flicker as much. Also breaking down tasks to incremental steps with detailed instructions helps.*
- *Q: How can I help prepare my students for a job? A: The best way for you to prepare students for jobs is to get them strong in their strong areas and gear their teaching towards a certain vocation. No one does well in his or her weaknesses. Find out their strengths and teach to them. I learned through trial and error.*
- *Q: How has medication helped you cope with autism and what advice would you give to parents on this issue? A: Parents need to contact a qualified physician, someone who knows about ASD. Parents could also do some research on anxiety to learn more about it. I take medication for anxiety and depression and it is very helpful, especially with noise sensitivity.*
- *Q: What would you advise me to do to help my daughter, who has AS, be successful? A: One of the most important things in helping your daughter is accepting her as she is. Appreciate her and say verbally what a good person she is and tell her concretely what she is good at each and every day. Encourage your daughter in the things she is good at. Help her in the area of social skills by breaking*

things down in itty-bitty steps. And try not to predict her future. Only the good Lord knows what she will do in the future.

Responses from the students included the following after completing this assignment:

- *I loved that assignment! What a neat opportunity to talk to adults with AS!*
- *It was a really good experience and they are a gracious group.*
- *I have learned SO much from them!*
- *It was so great that they were so open and willing to answer our questions!*
- *It really added to the class!*
- *I highly recommend doing this again. They have so much wonderful information to share.*
- *It was a great assignment – I have never been so excited to get e-mails!*
- *I really enjoyed reading about the others' questions and the responses they got back.*
- *I think that by gathering information from them, we are so much better informed and can be "ambassadors" in our school districts.*

Post-course follow-up and recommendations for the future

Since this course has been over, the author was asked if any of the adults would be willing to fly to ND to talk to the students, parent group, and school staff. Initial ideas are being discussed to determine if several districts could contribute to the expenses of airfare and speaking honorariums. Another student asked the author if one of the adults would be willing to communicate via e-mail with one of his students who was recently diagnosed with Asperger Syndrome and had significant social difficulty as it relates to being manipulated by others. The adult very willingly agreed to communicate with the young man since he understands so well. *I still have problems being manipulated by people*, he responded.

In the future, this author is planning on having these adults with Asperger Syndrome "log on" as co-teachers during the chat sessions and participate during live discussions. It was not possible the first time through this course due to their work schedules.

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"A RURAL TEACHER IS TO EXECUTIVE, AS A PARAPROFESSIONAL IS TO _____?": REVISITING THE CONCEPT OF THE TEACHER AS A SUPERVISOR OF PARAPROFESSIONALS.

Almost two decades ago, David Berliner (1984, 1990) wrote a series of articles on the theme of "Teacher as Executive," as a means of re-thinking the teacher's role, and providing new impetus to teacher educators as they prepare student teachers for their professional responsibilities. The phrase originated from a discussion of the use of metaphor to explore new ways of seeing and understanding. Dismissing previous metaphors, such as "teacher as mother earth" and "teacher as information giver" as inadequate to describe the multiple and complex responsibilities of today's teachers, Berliner likened the teacher to a business or management executive, and opted for the metaphor of "Teacher as Executive."

One of the nine executive teacher functions which Berliner identified was that of Supervising and working with other people. Historically for teachers, supervision has been associated with student teachers and parent volunteers, and discussion of the "other people" with whom they have worked has focused on professional colleagues in co-teaching situations, or collaborations between regular and special education, and with related service providers. Only in more recent years has attention been paid to the supervision of paraprofessional colleagues (paraeducators) despite their long-term presence in U.S. classrooms. The increase in the numbers of paraeducators in the U.S. is well documented (Pickett, 2003), and it was estimated that during the 1999-2000 school year, public schools in the U.S. employed 621,000 paraeducators as instructional aides in the classroom (Bairu, 2001). Almost a decade ago, Salzberg and Morgan (1995) documented the general lack of training for teachers, at either pre- or in-service level, in how to effectively supervise and work with paraeducators, and there are no indications of a reversal in that trend (Ashbaker & Morgan, 2002) despite legislative requirements such as those of IDEA '97 that paraeducators be "appropriately trained and supervised" (italics added). The recent re-authorization of the Elementary and Secondary Education Act as the No Child Left Behind Act of 2001 has also highlighted the need for school districts to document paraeducators' qualifications for the increasingly sophisticated roles and responsibilities that are being assigned to them.

Supervision has many definitions, and will be interpreted differently by individual teachers according to their professional philosophies and circumstances. We have taken the liberty of speculating on what metaphors might be applied to paraeducators, to reflect a variety of perspectives on supervision, and the roles that paraeducators now play in the instructional process. Such metaphors as "Paraeducator as Gopher" or "Paraeducator as Mother Earth" should generally be recognized as outdated, with the increased complexity of the duties assigned to them, and the general acknowledgment of their being critical to providing services to children with and without disabilities. Therefore, we propose three metaphors for consideration and invite readers to reflect on which of these apply to the role that paraeducators play in today's classrooms.

Paraeducator as sheepdog

In one of the author's native Wales, a much anticipated event at the annual summer county fair was the Sheepdog Trials. Shepherds compete with their dogs, displaying their skill at controlling a small flock of sheep. At a word from the shepherd, or a brief whistle call, the dogs stand at the ready, slowly stalk the sheep to move them gently without spooking them, or dash around the small flock to keep the group together and guide them into the pen. It is always impressive to see how intelligent the dogs are--they appear to need so little guidance--and how attentive they

are to the shepherds' brief commands. It is also obvious that the shepherd could not control the sheep without the assistance of the sheepdogs, who also seem to thoroughly enjoy their work, and sit down with a very satisfied grin when they have successfully penned the sheep.

For some teacher-paraeducator teams, the shepherd-sheepdog metaphor seems most apt. The paraeducator/sheepdog is well trained and knows her duties. A word from the teacher will suffice for the paraeducator to hold back or dash in and intervene with the students, whether in an instructional context or with behavior management. The paraeducator is very observant of the teacher's needs or has been well trained by the teacher in the details of her responsibilities. It is obvious that the teacher could not accomplish her instructional goals without the assistance of the paraeducator, whose contribution has been a critical part of the teacher's planning.

But the operative word is control. Control of the sheep and control of the sheepdog by the "shepherd." That is not to say that the relationship is negative - shepherds have great affection for their dogs, and the relationship generally lasts for many years. But a sheepdog who resists training is immediately dismissed as a possible team member. And like the sheepdog, many paraeducators are limited to "heel-nipping" duties--keeping students in line, generally encouraging students in their work assignments and behavior--without any responsibility or authority being accorded to the paraeducator as an educator who can work independently and take initiative. Sheepdogs who take it upon themselves to herd sheep when the shepherd is not present are considered a potential nuisance and are not looked upon with any favor by other shepherds.

Paraeducator as Co-Pilot

Paraeducator as Co-Pilot has a ring of truth to it, as the para-educator is so named because she works "alongside" (para-) a professional educator, as a co-pilot works alongside the pilot of a plane. The intent is there for educators, even when the teacher is not physically present. Indeed, like a co-pilot the paraeducator may occasionally take over while the teacher "walks through the cabin," as she is presumed to have the skills and is given the authority to watch the controls for anything out of the ordinary, and temporarily "fly the plane," with the overall responsibility resting with the pilot or teacher. Likewise, many paraeducators do substitute in their teacher's absence, this being considered preferable to bringing in a substitute teacher who knows neither the students nor the routines in some schools (Morgan & Ashbaker, 2002).

The metaphor falls short, however, in that while the paraeducator's duties may mirror those of the teacher quite closely, as she provides critical instructional and classroom management support, she is unlikely to have received the equivalent of the extensive training that would be required of a co-pilot. The majority of paraeducators are not on a career path to teaching, while the co-pilot does normally aspire to becoming a full pilot, and is trained commensurate with the significant responsibilities he/she is likely to be assigned in the future. The paraeducator, although assigned significant responsibilities, is not typically trained to a significant extent.

Paraeducator as Medical Intern

This metaphor from the medical profession may come close to being the most satisfactory, as an ideal. Medical interns in hospitals accompany the doctor on his/her rounds, not only shadowing the professional and having to rely on observation to learn critical skills, but also receiving direct mentoring. The medical professional talks through procedures as they occur, and checks the intern's knowledge of each case as it is examined, before allowing the intern increased responsibility for individual cases. Theoretically, therefore, the analogy is a useful one. However, again the metaphor falls short, as few paraeducators intend to seek professional educator status, and they are rarely provided with timely training that is commensurate with the duties they will be expected to assume. In addition the on-the-job training (if it is provided) is not likely to be as systematic and obvious as that which is routinely provided to interns.

As an aside, "Paraeducator as Executive" is a true metaphor for some paraeducators, who do plan curriculum, liaise with other service providers or therapists and families, set goals for individual students, and even supervise other paraeducators. This is particularly true of paraeducators working as computer lab managers, but also of many who work in Title I and Bilingual Education programs. However this is not an appropriate metaphor. All paraeducators must have a supervisor of some description, i.e., a professional who takes overall responsibility for the paraeducator's work and student progress. This is a timely reminder to those supervisors and school administrators that they must actively assume the supervisory responsibility. It is not intended as a criticism of paraeducators who

faithfully carry out assigned duties, whether they have adequate support or not. Teachers may be likened to executives, but legally and ethically, paraeducators should not be.

For the most apt metaphor, we may need to return to Berliner. Essentially the teacher's role operates on two interacting levels, as is true for many executives: both at basic production level, where the product is better educated students; and at middle management level, where some of the responsibilities for production are delegated to other adult-employees which in this case is one or more paraeducators. If we extend Berliner's metaphor of Teacher as Executive, the most logical fit for the paraeducator who works alongside the teacher may be that of Paraeducator as Line Manager or Middle Manager. The paraeducator/manager is assigned very specific responsibilities by the executive teacher, but is also allowed a certain freedom to interpret and be creative in order to accomplish work objectives, in this case, ensure that students learn.

Accompanying his provocative metaphor, Berliner (1990) provides what comes close to a caveat:

"What every executive needs to learn is how to share responsibility with the people they work with, or how to take the authority and power that goes along with the responsibility for supervising other people."

While many teachers may be willing to share classroom responsibilities with another adult and delegate to a paraeducator those tasks for which she is qualified, fewer seem willing to assert the authority which comes with the professional role. The teacher is the professional who is held accountable for student progress. In special education settings, it is the teacher who is likely to be involved in an IDEA '97 Due Process complaint when schools and school districts are called to account for the services provided to children with disabilities. It is the teacher's responsibility to ensure that educational programs are properly administered and that students enjoy a classroom atmosphere conducive to learning. Part of that responsibility may be shared with a paraeducator, but the sharing does not absolve the teacher from ultimate overall responsibility, or from the unfortunate necessity of occasionally having to deal with negative situations and correct inappropriate behavior on the part of the paraeducator. To do this teachers can evaluate their classrooms, the roles and responsibilities they wish to assign paraeducators, and the ways in which these will be evaluated.

Berliner also points out that,

"In education we may be more advanced than in business because we are required to take responsibility for the work of individuals who may not wish to be in our classes, may not be able to perform well in our classes, or may not respond to the limited set of incentives we have to offer them."

While Berliner was referring to students, we need to be sure that this does not occur for paraeducators, and that educators determine what is necessary to ensure that paraeducators do wish to be in our classroom, and that they are able to perform well because they have clearly defined responsibilities and the needed support to enable them to carry them out, effectively.

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INFLUENCING STUDENT LEARNING: A SCHOOL-WIDE ACTION RESEARCH PROJECT

Action research is the systematic study of teaching and school practices. The action research model promotes inquiry based and contextually driven professional development often focused on student learning. The application of the action research process focuses on the educator and increasing their knowledge base, deepening understanding of self and teaching as well as extending professional and personal wisdom. The purposes of this case study paper are to; a) provide appropriate background information on the action research model and challenges, b) outline an action research program designed to serve the needs of Utah educators, c) describe the collaborative factors and efforts used to implement a school-wide project focused on increasing student learning in a rural intermediate school, d) outline teaching model and strategies, and e) present preliminary findings from the case study.

Background Information

Action research or teacher research is a form of reflective practice based on the principles associated with systematic inquiry of one's own educational practice. Historically, action research was embedded in social action and critical perspectives required to illuminate issues of curriculum and the social structure of schooling (Stenhouse, 1975). Throughout the decade of the 1990s, action research, and its various forms of participatory inquiry began to emerge in graduate programs and higher education focused professional development endeavors. However, in recent years, action research has become an increasingly popular form of K12 professional development (Licklider, 1997; Lytle and McGuire, 1993). Its popularity can be noted in K12 staff development guides, school reform efforts, and workshops (Halsall, 1998; Harris, 1998).

The popularization of action research has created several challenges for educators who believe that this model of professional development is, by its very nature, different from the more traditional forms of training, workshops, and inservice education. Firstly, many educators working in the professional development area argue that an inquiry model requires sustained instructional strategies that engage the participant in time consuming, labor intensive, and emotionally charged activities. As a result, participants must be provided with a "coaching" style of instruction that supports the participants' as they question, probe, and sort their own teacher thinking as well as their practices, perspectives, values, and those of their students. However, as action research has expanded into the arena of district promoted staff development (Kochendorfer, 1997; Lytle, 1996), there has been a tendency to reduce its conceptual, instructional, and contextually-driven frameworks into more discreet packages of "how to" or "tidy tips" approaches demanded by overworked and highly-pressured classroom teachers. Presented in workshops or through a video-production source, educators are often left with either an ineffective "quick and dirty" action research workshop or a overwhelming feeling of frustration and resolve to never entertain action research again.

Secondly, the popularity of action research has required district and higher education personnel to use more distance education delivery models to support educators in rural and remote schools. The challenge here is to keep to the pedagogical and collaborative tenets vibrant as more distance education strategies are employed in the ever expanding dissemination process. It is within this changing world of professional development and action research that a local and collaborative action research program evolved into a large dissemination project throughout the state of Utah.

An Action Research Program

Building upon years of instructional and evaluative knowledge about the role and design of a successful graduate action research program (Crow, Stokes, Kauchak, Hobbs, and Bullough, 1996), a professional development effort was initiated in 1994 by four teacher educators from the University of Utah, Davis, Granite, and Salt Lake City School Districts. The teacher educators represented one full-time faculty member and three University/District Liaisons (half-time at the University of Utah and half-time in their respective district's Staff Development Offices). The goal of this collaborative venture was to design and implement a high quality professional development course for K12 educators using an action research model (Crow, Adams, Bachman, Peterson, Vickery, and Bernhardt, 1998). The subsequent course and U-LEARN (Utah Local Educators Action Research Network) program was developed and infused with guiding principles that grew out of the work by Judith Warren-Little (1993). Briefly, the U-LEARN principles focused upon creating a sustained community of learners that investigated locally based questions over a sustained period of time (Crow, Adams, Bachman, and Spencer, 2002). The first course was taught in 1995 to 30 K12 teachers and administrators in the three participating school districts. Taught onsite in various schools, the participants and instructor met for 90 minutes every week during a seven month period. Taught every year, participation in the six-credit semester course grew rapidly to 80 educators in 1998. By 1998, the U-LEARN began working with a consortium of seven rural school districts in central Utah called CUES (Central Utah Education Service area) to develop effective distance education delivery strategies for their rural educators. By May, 2002, the CUES/U-LEARN project had worked with close to 70 educators, including regular and special educators along with school administrators.

Then, in late 1999, the U-LEARN instructors were asked to develop a more state-wide action research initiative effort focused on providing the same quality action research program while exploring additional distance education instructional strategies. As with previous U-LEARN efforts the challenge focused on using the guiding principles of action research, contextually-driven collaboration coupled high instructional touch, classroom relevance, teacher empowerment, and appropriate academic rigor delivered using compatible distance education strategies. To honor the U-LEARN tenets for supporting collaborative efforts with local educators to create communities of learners, the Initiative organized the state of Utah into seven regional areas (see www.ed.utah.edu/ulearn). Each of the seven areas were represented by a local regional director (K12 administrator), one of the four University of Utah instructors, and a cadre of urban and rural assistant instructors called Lead Instructors. The coordination needed for recruiting participants was lead by the regional director and supported by the University instructor. Financial resources were supported from Goals2000 Grants, directed by the University instructor, and housed in the region's school district. By January 2002, the project began implementation.

Since the implementation of the Action Research Initiative, much as been learned about effective collaborative efforts, appropriate distance education strategies, and engaging instructional activities. The last year of the Initiative project is 2002-2003 and involves almost 80 educators located within urban, suburban, and rural Utah. Using program evaluation efforts along with instructor observations, there has been needed revision and refinement. While the U-LEARN guiding principles have not been altered, the instructional approaches used within that framework have evolved throughout the project.

Collaborative Efforts and Factors

One of the five regions in the Initiative program was located in a rural part of the state. Called Region Four, the program prior to the Fall 2002 was somewhat successful. The participants did utilize the online course developed for the Initiative project and completed some of its activities. Furthermore, about 50% of the original participants completed their action research projects on-time. It is difficult to fully determine why the online course delivery model failed to work in this project. Moreover, the evaluation data indicated that the onsite teaching components were overwhelming popular while the collaborative efforts between that year's Regional Director and University instructor were lukewarm at best.

Given this backdrop as well as the departure of the previous University instructor, two different U-LEARN instructors approached a new Regional Director about providing action research instruction to his rural educators and proposed moving away from the predominant online action research course to more traditional means of onsite teaching instruction enhanced by online course support. The Director sent "advertising flyers" for the action

research course out to the six school district consortium comprising Region Four. Immediately, Principal M (called M for this paper) from Rivers Intermediate School (fictitious name) contacted the instructors with a proposal. She wanted her entire school faculty involved in the action research class. Furthermore, she wanted her school to focus on one school-wide writing strategy and project. It should be noted that the school housed fifth and sixth grades resulting in 967 students as well as 32 educators, including special educators, school counselor and administrators.

With the support of the grant resources and the Regional Director, the project was given the go-ahead to proceed for 2002-2003. After several telephone conversations in which the U-LEARN principles were discussed along with the descriptive needs outlined by Principal M, a curricular timeline was prepared around three primary onsite teaching sessions, including one initial eight hour session in the October and two sessions of three hours each scheduled in December and April. The instructors understood that school would focus on a specific writing strategy and create a range of appropriate action research projects to study a myriad implementation, student achievement and school change issues.

With this initial work achieved, the real collaborative efforts began as the two instructors drove 300 miles to Rivers Intermediate School and visited Principal M on the day before the October, eight hour teaching. The meeting occurred in Principal M's office. The instructors asked her to describe her needs for a school-wide improvement project based on scores received from the state's U-PASS competency and standardized tests administered during Spring 2002. Principal M believed that the tests indicated that the schools' educators needed to focus on a particular writing dimension. Furthermore, she argued that the schools' educators, including administrators, special educators, school counselors, and regular teachers needed to implement a school-wide instructional writing strategy and use the action research process to study the same inquiry question. Additionally, Principal M was clear that while this was her assessment of the test results and implications, the school's educators had not thoroughly discussed the implications of the test results. She was very open to seeing where her faculty went with the test result data and the "one action research" project. Principal M was clear that while the instructional intervention might vary, she strongly hoped that the school faculty would see a need to work together on the same intervention and action research project.

As the conversation developed that autumn afternoon, the University instructors realized several new twists to their prepared eight-hour teaching session. Firstly, the collaboration efforts took on a whole-new spin moving from collaborative logistical involvement to collaborative instructional relationships. Secondly, the instructional time would need to be reorganized to support a "facilitative" model of participant interaction, direction determination as well as action research instruction. Thirdly, in almost 14 years of action research model implementation, the instructors faced an imposing and new challenge involving one school, one action strategy intervention, and only one action research question/design for 32 participants. Fourthly, both instructors were effective group facilitators and had worked with many groups in other aspects of their careers. Therefore, the instructors realized that they needed to bring together their facilitative skills gleaned from one aspect of their careers' activities and combine it with their instructional strategies.

While information about the Rivers Intermediate School teaching model is further described in the paper's next section, it should be noted that the collaborative relationship between the University instructors, Principal M and the school's faculty members has continued to grow and sustain the efforts required to facilitate the school-wide improvement and action research project.

Teaching Model

As noted in the section above, the teaching timeline was composed of three sessions scheduled for October (eight-hour session) and December (3 hours) 2002 and April 2003 (three-hour). All sessions were taught on-site in the school's Media Center. Teachers used their weekly staff development sessions to provide the needed time together. The participants were paid \$225 for their involvement and provided with an action research textbook and *The Action Research Workbook*.

Also noted earlier, the first teaching session was structured around a more "facilitative" model of interaction required to focus the group on the various test score data, analyze it and arrive at a productive conclusion. Once the group analyzed and moved to consensus around the need to improve the 5th and 6th grade students' specific writing skills that Principal M had envisioned, the University instructors moved into arena of

teaching the participants the action research process and applying it to their designated topic area. Furthermore, by the end of the first session, the educators had selected 'one' question and 'one' possible project design as well as started on a cooperative search of the educational literature. The second teaching session in December asked the participants to share the findings from their literature searches, analyze the findings, determine a writing skill intervention, finalize their project design, design appropriate ethical considerations, and determine timeline as well as data collection responsibilities. The third session will be taught in April. While the purposes of this session are to: a) analyze the data and b) determine the presentation, the collaborative process along with the needs of the faculty continue to negotiate the best use of the April session.

Preliminary Results

First and foremost, the collaborative perspectives and actions valued by the University instructors and the school's principal and faculty have shaped and sustained this unique project. These collaborative principles require bringing together the 'primary participants' together for an open-ended discussion and in supportive environment. The 'primary participants' must be defined by those stakeholders who are closest to the actual implementation activities. In this case study, the 'primary participants' were the school's principal, the course instructors, and the faculty members. An open-ended discussion refers to listening to principles and interests, asking questions, considering alternatives, proposing possibilities, focusing on common goals, and selecting appropriate achievement means. A supportive environment means that each participant must be able to share their foundational and guiding principles while at the same time, each participant must listen carefully to fully understand each other's principles and interests.

With each passing teaching session, the collaborative dialogue continues to focus on the faculty efforts and their pupils' learning needs. The relationship and project have been successful because all parties have focused on their guiding principles while being flexible in how they achieved success. Each collaborative participant brings different needs and perspectives into the discussion, these differences always contain the potential to derail the collaborative process. Ultimately, the collaborative goal of improved student learning focuses the group's goals, discussions, hopes, concrete objectives, and next steps. Much like a spoked wheel with a center hub, placing the child at the center ties together different needs and interests. For this reason alone, this collaborative venture should continue to be successful and accomplish the stated needs.

Secondly, when effectively used, onsite teaching continues to be powerful, rich, and meaningful delivery model for instructors and participants. This requires combining engaging instructional strategies with usable curriculum applied to each participant's own contextually driven classroom needs. This pedagogical combination produces powerful interactions, meaningful instructional activities, productive group work, shared reflection, and synergistic learning that can be immediate while long-lasting. This is not to suggest that onsite teaching is the only effective medium for distance education delivery. However, what onsite teaching does offer 'experienced' teachers and instructors from the 'analogy generation' are the known, comfortable and easily accessible instructional activities as well as familiar learning environments. The instructional strategies can be easily adapted at a moments notice and based on immediate observational data collected from several senses, including, sight; sound; and touch.

Thirdly, it is possible to work with one school faculty, delivering one action strategy or intervention, and gathering data based on a common design. It should be noted that the faculty has continued to meet apart from the University instructors. The meetings focus on arriving at the most, perceived effective action strategy based on the educational literature search and personal experiences. As a result, the data gathering efforts will be limited to a two-month period. The data will not be sufficient to generate appropriate analysis beyond a pilot-study phase. Therefore, the April session may focus on analysis of the initial data and the newly implemented writing strategy intervention. It is anticipated that the school year 2003-2004 will provide the needed year-long format required for instructional strategy implementation and data gathering and analysis efforts.

Fourthly, the Action Research Workbook proved to be an effective professional development instructional manual providing audience, instructor, and situational flexibility. Furthermore, the modular structure and specific learning activities developed over years of teaching action research to a variety of participants continued to provide engaging, reflective, and conceptually-sound applied activities for groups and individuals. The Workbook designed in a modular fashion allowed the instructors to flexibility plan and use a myriad of learning activities for their specific teaching needs. The Workbook activities were created around introducing the action research process,

exploring possible topics, conducting a school history, conducting an educational literature review, specifying a question, understanding ethical issues, designing appropriate ethical precautions, creating an action research design, identifying appropriate data sources along with methods, collecting data, analyzing quantitative as well as qualitative data, and structures for presenting the inquiry story.

It should be noted that the Action Research Workbook reflected the structure, concepts, learning activities, and design created for the Online Action Research course developed for usage during the Action Research State Initiative. Deemed as too much work and overwhelming, the online course's conceptual and instructional elements provided an instructor workbook with "pull-out" modules for a variety of audiences, instructor needs, and program goals. The Action Research Workbook provided successful instructional activities, aided conceptual understanding, stimulated participant reflection, guided individual work and supported group thinking.

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JOINING TOGETHER TO PREPARE TEACHERS: DEVELOPING PROFESSIONAL DEVELOPMENT SCHOOLS

The purpose of this paper is to provide information about developing professional development schools (PDS) linked with university teacher preparation programs. In this paper we will provide information on the PDS programs used in three regions of the country at very different institutions and what we have learned from these experiences as we work to develop the most effective programs possible for our teacher candidates.

Research base

There is a rich research base to support the concept of professional development schools, the benefits to both partners, the positive effects on teacher candidates' preparation, and best practices in the creation of these partnerships. The advent of the professional development school (PDS) was prompted by teacher educators and professionals in k-12 schools exercising leadership to improve the preparation and retention of beginning teachers. The goal of the PDS initiative was for university and school faculties collaboratively a) to provide preservice students extended immersion experiences in model k-12 settings, b) to provide k-12 staff access to professional development resources through the university, and c) to promote research and inquiry. Such a partnership couched in a culture of continuous improvement offered the promise of simultaneous renewal and enhanced learning opportunities for all concerned, including the diverse K-12 student body of our public schools (Goodlad, 1994).

The agenda of simultaneous renewal is concordant with the needs of rural settings. Rural schools often have a high proportion of experienced staff but may have difficulty recruiting and retaining new teachers, many of whom have had limited preparation for the cultural contexts within which they find themselves (Prater, Miller, & Minner, 1997). Often a high percentage of new hires in PDS districts/schools are graduates of the PDS program. Many administrators prefer PDS candidates because they've already proven themselves and are socialized to the context of the district (Ridlon & Major, 1997). Rural site-based programs may rely heavily on recruits from within a district, also. Such graduates are less likely to relocate to obtain a position (Westling & Whitten, 1996). Thus, the PDS is a means of 'growing your own' new faculty with full credentials. Another goal of a PDS is to reduce the isolation of practicing teachers, a common dilemma of educators in rural or remote locations. The PDS may address this dilemma for the district by promoting professional growth, dialogue, and communities of practice (Boudah & Knight, 1999).

However, establishing and sustaining a healthy PDS in a rural site has its own inherent challenges and requires coherent, consistent leadership at many levels. Frances Cochran (1999) has observed that PDS's are being created and maintained through the work of individuals rather than as part of an overall well developed organizational plan. Her interpretation of survey data from 75 individuals in 50 institutions suggests that individual professionals are forming the relationships needed as a basis for collaboration and are doing the work defined by the PDS as important. However, it is her perception that professionals are doing this work despite a lack of support and systemic change within their educational institutions. Participants in Cochran's survey perceived the greatest advantage to the work is improved teacher education (41%) followed by building a collaborative community (16%), continuing education (14%), and providing students an exemplary education (13%).

Surveys conducted in our own site (Ridlon & Major, 1997) are consistent with her findings. However, one might wonder if the relationships that are formed and sustained through the PDS contribute a value added 13% to student learning, is that a worthwhile investment? Further, perhaps the flexible, complimentary nature of the partnership between schools and universities is a positive feature. When program structures become too institutionalized they can be rigid. Our goal as teacher educators should be to garner consistent institutional support but maintain a reciprocal balance. "Just as we are inventing this new institution, so too leadership for and in the PDS needs to be invented. Sorting out the matter of leadership is part of the task of invention. (Mager, 1999, p. 198)

The model used at Towson University

In 1995 and 1996, the faculty in the Department of Early Childhood Education began the first professional development school (PDS) partnership designed to enhance the professional preparation of initial certification teacher candidates at the undergraduate level. This first partnership (that continues to exist) is in Anne Arundel County, Maryland. All of the PDS partnerships in Towson's College of Education are reciprocal in nature and based upon mutual respect between partners and how each partner can do all that is necessary to meet the needs of 1) the students enrolled in the schools in which the partnerships are located, 2) partner school teachers, staff, and administrators, 3) the teacher candidates, and, 4) the faculty and staff in the four departments in Towson University's College of Education. In Early Childhood Education as of this time, there are five PDS projects in four county school districts encompassing 14 schools. These projects are located in urban, suburban, and quasi-rural areas. "Quasi-rural" in that some of the schools are in the rural places of two of the counties in which PDS projects are located. To be clear, these five projects associated with Towson's Department of Early Childhood Education. As of January, 2003, Towson has 45 PDS partnerships in seven county school districts and one city school district encompassing 76 different schools in Early Childhood Education, Elementary Education, Special Education, and Secondary Education.

In 2000, a unique partnership began when faculty in Towson University's Department of Early Childhood Education and faculty from the Infant-Primary Special Education started discussions among themselves (and, then, with Baltimore County Public School personnel) on planning a joint professional development school (PDS) effort aimed at enriching the professional preparation of teacher candidates engaged in initial certification programs in their respective areas. In addition, through this collaboration, increased opportunities to work in schools with practicing teachers, staff, and administrators while providing school personnel with multiple-faceted professional development opportunities was a necessity in order to continue the extensive PDS efforts Towson's College of Education had undertaken since 1995 as part of its own philosophical approach to teacher preparation, to meet the intent of Maryland's 1995-96 "Redesign of Teacher Education," and to meet the 1997 State Board of Education requirement that all teachers being trained in Maryland's colleges and universities receive their training in professional development schools/academies by 2004. At present, this is an unfunded state mandate. Combining early childhood education and special education was seen to have considerable advantages that might lead to a collaborative major with students from each program knowing more about all children and the families of all children ranging in age from birth through eight years.

Of interest, then, to the Baltimore County Public Schools, the administrators, teachers, and staff at the three schools, and the university faculty would be environments in which candidates seeking initial certification could be recruited to work in schools representing these characteristics (after having spent three semesters of their training engaged as full members of those school communities). The realism of this training, then, would result in the increased retention of new teachers who were trained through this PDS partnership and hired by these schools when vacancies occurred, or in similar schools, many of which predominate Baltimore County and other school districts in central Maryland whether they be urban, suburban, or rural in nature. In addition, this project along with a PDS project in two proximal schools in the Baltimore City Public Schools (and proximal to the Baltimore County project) themselves having 100% African-American populations of children could serve as the means by which African-American university students could be recruited to the programs in Early Childhood Education and Infant-Primary Special Education.

The Maine Extended Teacher Education Program

The Western Maine Site is one of five partnership sites for the ETEP (Extended Teacher Education Program) at the University of Southern Maine. ETEP is a thirty three credit site-based graduate teacher certification program which has earned a strong national reputation since its inception in 1989. Admission to the program is contingent upon a successful interview at a site by a team of mentor teachers, administrators, and university faculty. In recent years admission rates for candidates with complete applications have ranged from 60-75%. A cohort of 15-20 interns concurrently participate in coursework and school-based internships in each site from August through mid-May. Interns who successfully complete the program are eligible for initial teacher certification and may complete a master's degree by taking thirteen additional credits of coursework during their first or second year of teaching.

A pair of faculty (a university-based site coordinator and a school-based site coordinator) oversee all programming, supervision, and communications within each site. They fulfill crucial leadership roles as they set the agenda for the site's steering committee and are the primary communicators of the program's "vision" among stakeholders.

The Western Maine Site accepted the first cohort of interns in 1993 after more than a year of collaborative site development activity led by a university faculty member and an elementary principal. The university faculty member who initiated the partnership had extensive expertise in supervision, and took the lead in offering graduate courses onsite on clinical supervision and mentoring. Many teachers who participated in those first courses have continued to contribute to the growth and sustenance of the site through mentoring and varied leadership roles. The principal, who was highly regarded by university faculty and administrators for supporting innovative practices in his school, took the lead in organizing a k-12 curriculum alignment project. These influences are reflected in the vision that stakeholders agreed on for the site. It had five areas of emphasis: 1) preservice and continuing teacher education, 2) coherent and coordinated education - the k-12 focus, 3) belonging- the community spirit focus, 4) continuing professional development - the self evaluation and professional improvement focus, and 5) skilled service - The education as community service focus (Fryeburg ETEP Handbook, 1998).

The emphasis on community was fitting for the rural nature of the site. The sponsoring school district, MSAD #72, is a consolidated district which includes seven towns in Maine and two towns in New Hampshire which choose to tuition their students. During the first few years of the site, it was more difficult to garner financial support from the K-8 public school administration to help fund a school-based site coordinator position despite the fact that strong relationships among the K-8 staff and university program were the primary driving force for the partnership. Eventually, limited support for the site coordinator's salary was committed via a grant for the k-12 curricular initiative that was underway. This was fortuitous as through the curriculum initiative a new collaborative, teacher-led organizational structure for educational restructuring was developed. Known as ARISE, it is now the vehicle for organizing and integrating professional development and school improvement efforts within each school and throughout the district as a whole. ARISE committees are usually teacher led and allow for continuous improvement in curriculum and assessment protocols throughout the k-8 classrooms in the district. The district tapped into resources at the university throughout the development process. Because of the relationships among individuals, there was a strong sense of association between ETEP and ARISE.

The Gonzaga University experience

Gonzaga University is a small, private, Jesuit institution located in Spokane, Washington. The School of Education offers certification programs in general and special education at both undergraduate and graduate levels. There are three other colleges offering teacher education programs in Spokane and we all compete for the best field placements in the local schools. We have found several reasons for developing PDS sites, including 1) the research base which shows how effective these programs are for our teacher candidates; 2) the need to establish long-term relationships with the schools and classrooms in which we want to place our teacher candidates so that we can count on being able to use those sites year after year; and 3) the benefits we have gained from the collaborative relationship with these highly effective teachers.

Our experience with these partnerships has been a rocky one. We began this work in an earnest way nine years ago by identifying one school at each level with whom we felt we could work effectively and designated a faculty member to foster the relationship. This effort went well until we had several faculty retirements and changes in principals; these changes derailed our partnerships for awhile. Once we established new relationships between the key players we began to work together effectively once again. At this point we have active partnerships with two elementary schools, one high school, and are working with two middle schools, but in less formal ways. We have also formed a partnership with another elementary school, but find it is not truly a PDS site for a variety of reasons. We have a faculty committee focused on developing and sustaining partnerships and have designated one colleague as the official contact for that work.

What we have learned

The process of establishing a PDS partnership requires anywhere from 6 months to two years of effort. This includes: a) university planning; b) informal discussions with school principals and district personnel; c) gaining entrée and formal approval from the local school district and the proposed partner schools; d) extensive strategic planning to discuss the characteristics of the schools, the university program, the fit of the PDS project to the university program and school improvement efforts; e) discussing roles and responsibilities in all matters from governance to mentoring to determining and providing professional development opportunities, including the conduct of inquiry and action research; and, f) reviewing state PDS Standards as well as NCATE PDS Standards and determining the process of on-going review and evaluation.

Central to the success of the PDS project is leadership, administrative support, investment of partners, and fiscal support, when available, that is used as incentives for what is labor-intensive effort. The following characteristics are necessary for PDS success: 1) belief that PDS has benefits for all stakeholders, including the students enrolled in partner schools; 2) investment by school personnel and university faculty and staff that effective professional preparation and professional development can occur via the PDS; 3) on-going and strong leadership of principals and university department heads and the dean for PDS; 4) establishing, implementing, evaluating, and revising PDS projects takes time, considerable amounts of time; 5) state standards that are developmental in nature recognizing that PDS are constantly being revised due to annual changes in school faculty, new principals being assigned to schools, and that PDS projects by their very nature are complex; 6) the need to find incentives for school personnel to be an on-going part of the PDS efforts as this work is typically beyond what is required, especially during times of great pressure brought about by high stakes testing, the introduction of new district programs and curricula, and other new initiatives; and, 7) the knowledge that during the present time economic incentives and supports for PDS work take a second place behind "No Child Left behind" and other state initiatives.

As with so many accomplishments in a school site, it is difficult to sort cause and effect from contribution. As Mager (1999) has pointed out, it's important to keep one's perspective. The work has institutional and individual dimensions. Both can be influenced by PDS involvement in important ways. "When the school changes so do the work lives of the educators involved. And the changing lives of these educators are changing the institution." (p. 193) Maintaining the vision, adjusting the vision over time, and accommodating transitions in staffing patterns are ongoing challenges. Naturally, as the leadership positions change, the vision for the program shifts. Many of the changes have been determined at the university level in response to pressures to standardize requirements for interns across sites and to achieve more economy of scale.

Conclusions

Among the questions remaining happens to be: Does the PDS work? In our view, there is no better way to do what we do than being involved in PDS for the most effective training of teachers, assisting in the professional development of practicing professionals, becoming "true" partners with the school and the community, and being more intimately involved with children and in their learning. We believe in the PDS as the principle means of training teachers, in working with school professionals as a resource of the first resort, and, importantly, for enhancing the creditability of university personnel in schools and in the community. And, of the greatest significance, there is a genuine greater closeness with children which is why we are doing all of this in the first place.

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A QUALIFIED TEACHER FOR EVERY STUDENT: KEEPING THE GOOD ONES

National Special Educator Shortages

Chronic shortages of special educators--including teachers, speech pathologists, and school psychologists--have persisted in all regions of the U.S. since the passage of the Education for All Handicapped Children Act, P.L. 94-142 in 1975 (Billingsley, 1993; Boe, Cook, Bobbitt & Terhanian, 1998; Brownell & Smith, 1992; Lauritzen, & Friedman). Special education teacher shortages in the U. S. are currently the largest in history (Pipho, 1998). Special educators are more likely to leave the classroom than any other teacher group (Ingersoll, 2001). Shortages of special education teachers are twice as large as in general education. Approximately 12,241 special education teaching positions were left vacant or were filled by a substitute because suitable candidates could not be found. About 32% of new special education teachers are not fully licensed. Over 10% of all special education teachers are not fully licensed. Shortages of special education teachers in rural states are especially acute (Koury, Ludlow, & Weinke, 1991). These shortages are significant because the loss of one special education teacher could put an entire rural district in jeopardy (Thurston & Sebastian, 1996). Recruiting special education teachers to move to rural communities is almost impossible, and many who are there plan to leave in the future (Westling, & Whitten, 1996).

Utah Special Educator Shortages

Utah is experiencing chronic critical special educator shortages in all position and disability areas. Each year Utah school district superintendents are surveyed to determine the personnel needs of school districts throughout the state. Special education positions have continually led the list of critical shortages. In response to this long history of chronic shortages, the Utah State Office of Education (USOE) created a critical personnel shortages committee to study the problem. The committee includes district special education directors, university special education faculty, and USOE staff. The committee has been meeting on a regular basis since 1998.

In a 1998 study, researchers found that over 10% of special education teachers working in Utah schools left the classroom. The percentage has increased yearly reaching 13.7% in 2000-2001 (Menlove, Lancaster, & Garnes, 2003). The percentage appears to be increasing (see Table 1). This increase in special educators leaving Utah school districts is also seen in increasing attrition of speech and language pathologists and school psychologists (see Table 2). Many of these vacated special education teaching positions were filled with non-licensed "teachers." In some cases these "teachers" were long-term substitutes without college degrees or special education training.

Table 1. Utah special education professionals who left special education positions

Year	Special Education Teachers	Speech & Language Pathologists	School Psychologists
1998	10.7%	11.0%	8.2%
1999	6.7%*	6.6%*	10.2%*
1999-2000	16.2%*	13.3%*	11.1%*
2000-2001	13.7%	13.0%	15.9%
2001-2002	13.2%	15.1%	15.9%

*These numbers reflect a change in the data collection time period

Reasons Why Utah Special Educators Leave

The Utah Attrition Study was conducted to determine the amount of attrition occurring in the state of Utah among special education personnel, and to find out the specific reasons why special education personnel are leaving. The reasons for leaving are displayed in Table 2.

Table 2. Reasons why Utah special educators leave their position

Year	#1 Reason		#2 Reason		#3 Reason		#4 Reason		#5 Reason	
	Reason	Percent	Reason	Percent	Reason	Percent	Reason	Percent	Reason	Percent
1998	Moved	24.5%	Changed District	13.2%	Transferred to Reg. Ed.	11.0%	Retired	10.7%	Other	9.7%
1999	Moved	26.2%	Education	16.0%	Other	15.5%	Changed Districts	13.1%	Retired	12.6%
1999-2000	Moved	22.5%	Other	19.9%	Transferred to Reg. Ed.	14.7%	Changed Districts	13.1%	Left	11.2%
2000-2001	Moved	23.2%	Other	13.6%	Transferred to Reg. Ed.	12.3%	Changed Districts	12.1%	Retired	11.6%
2001-2002	Moved	20.2%	Other	15.9%	Transferred to Reg. Ed.	14.7%	Changed Districts	12.1%	Retired	11.4%

The most common reason for special education professionals leaving positions is “moving out of state”. The second most common reason is “other” which includes getting married, having children, illness, etc. The largest area of potentially preventable attrition is transferring to a general education teaching position.

Potential Solutions

Potential solutions designed to stem the tide of increasing special educator attrition in Utah must be explored. Efforts of universities to train increasing numbers of special educators will not meet this need if these educators do not stay in their positions. Interventions that prove effective in providing support to teachers, speech and language pathologists, and school psychologists must be explored. In targeting intervention efforts, it is important consider whether attrition can or cannot be prevented. One of the largest target groups of possible preventable attrition is that of special education teachers who transfer to general education teaching.

A Closer Look at Special Education Teachers who Transfer to General Education

A small number of Utah special education teachers leave their positions each year in special education classrooms to become general education teachers. This is a small but significant group of well-trained, experienced special educators who for a variety of reasons determine that special education teaching is not for them. By looking at the reasons why special education teachers are leaving their classroom positions to teach in general education classrooms, school and district level administrators can develop strategies to provide teachers with the inservice training and support necessary for good teachers to continue to teach. Universities can better prepare teachers who have the skills needed to remain in the classroom (Adams, 2001; Billingsley, 1993; Brownell & Smith, 1992).

Why Utah Special Education Teachers Transfer

To better understand why Utah special education teachers leave to become general education teachers, an in depth survey of the teachers who transferred in the 1999-2000 school year was conducted. USU graduate researcher Elizabeth Adams (2001) surveyed 51 Utah special education teachers to find out why they left their special education positions and what might have been done to influence them to stay. Survey results indicated that these teachers were somewhat to very dissatisfied with the non-instructional aspects associated with special education teaching. Non-instructional aspects included paperwork, student discipline, support from others, caseload or class size, student placements, meetings, and legal issues. Frustration with the paperwork requirements of special education was a major issue. See Table 3.

Table 3. Satisfaction with special education instructional and noninstructional aspects

Aspect	Very Satisfied	Satisfied	Somewhat Dissatisfied	Very Dissatisfied
Instructional	43%	39%	16%	2%
Noninstructional	6%	18%	29%	47%

(Adams, 2001)

These teachers reported that they did not feel the same way about non-instructional duties associated with their general education teaching positions. They were satisfied to very satisfied with these duties. The teachers were satisfied to very satisfied with the instructional duties in both special and general education teaching. See Table 4.

Table 4. Satisfaction with general education instructional and noninstructional aspects

Aspect	Very Satisfied	Satisfied	Somewhat Dissatisfied	Very Dissatisfied
Instructional	63%	31%	4%	2%
Noninstructional	47%	39%	14%	--

(Adams, 2001)

In fact, almost one-third of the teachers listed love of teaching as the factor that influenced them to transfer to general education rather than pursuing another career. They indicated that they wanted to teach. They enjoyed teaching and were satisfied with the teaching aspects of education. These results closely parallel what Billingsley and Cross (1991) found in their study of special educators who transferred to general education.

What Might Have Influenced Them to Stay

Teachers were asked to indicate what factors might have influenced them to remain in the special education classroom. The top factors listed in order of selection were (Adams, 2001):

1. assistance with paperwork;
2. additional teachers or paraeducators;
3. better salary;
4. smaller caseload;
5. other teaching choices or opportunities;
6. appreciation and respect;
7. district support; and
8. better or more materials and resources.

Potential Strategies to Prevent Special Educators from Transferring

Only 12% of the teachers surveyed indicated that nothing would have influenced them to stay in the special education classroom. That means that 88% of the special education teachers could have been influenced to stay. The following are a small number of the multiple strategies that might be used to do just that—keep teachers in the special education classroom.

1. While special education professionals report that they like the teaching aspects of their jobs, they are burdened by the administrative functions of the job, in particular paperwork (Adams, 2001).
2. There are indications that support by principals and administrators can relieve much of this frustration (Gersten, Keating, Yovanoff, & Harniss, 2001).
3. Using technology and organizational skills may help manage the paperwork loads associated with the provision of special education services (CEC, 2001).
4. Ongoing inservice training and continued education regarding best practices can also better prepare teachers to manage the stress of the special education classroom.
5. Using mentoring or professional peer coaching activities may assist teachers to use skills learned through ongoing training in the classroom, thus minimizing frustration (Askvig, B. A. & Garnes, L., 2000).
6. Strategies need to be fully explored in order to better meet the needs of special education professionals.

Conclusions

This group of Utah special education teachers who transferred to general education teaching positions said that if the time and physical demands of the non-teaching aspects were reduced or eliminated, perhaps special education teacher attrition might be reduced. This information may allow university faculty and school or district administrators to better understand the issues of retaining qualified special education teachers. This understanding could lead to the development of strategies, which would minimize attrition and promote retention of special

education teachers. If qualified special education teachers are not available in the classroom, children will not have access to high quality education. Considering variables and issues that lead to teacher attrition and reviewing factors that lead to teacher retention will impact the availability of appropriately qualified special education teachers.

Utah Special Education Teachers Who Stay on the Job

Each year from 10 to 14 percent of all of the special education teachers in Utah leave their teaching positions. For the past four years the number of special educators leaving has increased or remained stable at about 13%. Nationwide the number of leavers is similar. While focusing on retaining these teachers is critical, it is also important to note that almost 90% remain in the classroom. Although a great deal is known about why special education teachers leave, there is very little information about why they stay. This lack of information led to a survey of Utah special education teachers who have remained in the field for 10 or more years. All Utah special education teachers with 10 or more years of teaching experience were surveyed. Of the 1,091 teachers surveyed, 812 completed and returned the survey for a return rate of about 74%. Participation in the survey was confidential and voluntary and involved filling out a three-page survey (about 10-15 minutes). The survey was divided into seven sections: demographic information, teaching history, teacher satisfaction issues, teacher support issues, reasons why you stay in your special education teaching position, reasons why you might leave your special education teaching positions, and some additional open-ended questions. Demographic information is displayed in Table 5.

Table 5. Utah special education teacher who stay demographics

<u>Age</u>	30-35 3.6%	36-40 10.4%	41-45 15.2%	46-50 23.4%	51-54 23.5%	55+ 23.9%		
<u>Gender</u>	Male 18.5%		Female 81.5%					
<u>Ethnicity</u>	African Amer 0.1%	Caucasian 96.8%	Hispanic 0.5%	Pacific Islander 0.5%	Other 1.5%	Multi 0.5%		
<u>Total number of years teaching</u>			10-15 31.3%	16-20 28.7%	21-25 21.6%	25+ 18.3%		
<u>Total number of years teaching special education</u>			10-15 38.8%	16-20 30.2%	21-25 17.9%	25+ 13.1%		
<u>Number of years in current position</u>			1-5 17.3%	6-10 18.7%	11-15 31.7%	16-20 17.4%	20+ 14.7%	
<u>Took off time from teaching</u>			Yes 37.7%		No 62.3%			
<u>Number of hours per day spent at school</u>			0-3 0.7%	4-7 16.1%	8-10 77.2%	11-13 5.2%	13+ 0.6%	
<u>Number of hours per week spent working at home</u>			0-3 59.8%	4-7 30.5%	8-10 6.9%	11-13 .9%	13+ 1.7%	
<u>Number of trainings attended each year</u>			0-1 2.5%	2-3 27.9%	3-4 25.3%	4-5 16%	5-6 6.3%	6+ 22.1%

How satisfied are Utah special education teachers? When asked to rate their satisfaction, more than 91.5% of the teachers were either very satisfied or satisfied with the instructional aspects of teaching. Only 44.4% were very satisfied or satisfied with the noninstructional aspects. This is a strong message that Utah special education teachers stay on the job because they have a strong commitment to instructing student with disabilities. See Table 6.

Table 6. Special education teacher satisfaction ratings

	Very Satisfied	Satisfied	Somewhat Dissatisfied	Very Dissatisfied
Instructional (aspects associated with delivery of instruction)	39.4%	52.1%	7.7%	0.9%
Noninstructional (all other aspects of teaching i.e. paperwork, discipline, etc.)	2.4%	22.0%	44.5%	31.1%

Teachers further elaborated upon their perceptions of special education teaching. The large majority, 97.9%, indicated that their jobs are stressful, but they also perceive their jobs to be important. Fewer teachers agreed that others perceive their jobs to be important. More than 95.5% enjoy being a special education teacher. When asked if they plan to stay to the end of their careers, 85.5% agreed or strongly agreed that they would stay. Many reported that they have found ways to deal with the stress of special education teaching. See Table 7. Support also influences how teachers perceive their positions. Support related question responses are displayed in Table 8. While overall teachers feel supported, they reported that more support with paperwork would be helpful. See Table 8.

Table 7. Special education teacher perceptions of special education teaching

	Strongly agree	Agree	Disagree	Strongly disagree
My university program prepared me well to be a special education teacher.	20.7%	48.0%	24.9%	6.4%
I enjoy being a special education teacher.	51.4%	44.0%	4.1%	0.6%
I perceive my job to be an important job.	75.2%	22.7%	1.6%	0.5%
Others perceive my job to be an important job.	22.6%	41.9%	28.4%	7.1%
I would recommend special education teaching to someone else.	25.4%	38.0%	23.8%	12.9%
I plan on staying in special education until the end of my career.	47.3%	38.2%	10.0%	4.5%
Being a special education teacher is a stressful job.	77.1%	20.8%	1.9%	0.2%
I have found ways to deal with the stress.	25.8%	62.0%	11.1%	1.1%
I think about leaving special education.	16.8%	36.0%	29.5%	17.8%

Table 8. Special education teacher perceptions of support

	Available and helpful	Available but NOT helpful	Not available, would have been helpful	Not available, would not have been helpful
Collegial support				
Support from other special education teachers	76.5%	9.7%	10.7%	1.4%
Support from related services providers	69.6%	17.6%	8.9%	1.6%
Positive working relationships with general educators	69.6%	16.5%	8.1%	1.8%
Building administrator support	67.2%	20.2%	6.3%	2.1%
District director/supervisor support	60.2%	23.3%	9%	3.8%
Parent support				
Positive working relationships with parents	65%	19.5%	9.1%	0.7%
Paraeducator support				
Adequate hours of paraeducator support	49.3%	7.1%	36.1%	4.1%
Adequately trained paraeducators	47.4%	8.9%	33.9%	4.6%
Paperwork support				
Support/assistance to complete paperwork	21.9%	10.5%	56.8%	8.7%
Physical resources				
Adequate classroom space and location	64.4%	5.2%	26.2%	1.7%
Adequate technology resources	51.2%	12.3%	32%	1.8%
Adequate curriculum materials and books	49%	8.4%	37.3%	2.6%
Professional resources				
Professional development opportunities	73.8%	15.4%	7.6%	1.1%
Information regarding state & federal policies	70.9%	18%	8.3%	0.4%

Teachers were also asked to rate their reasons for staying in special education teaching. The top five reasons were:

- 83% Feeling of success and joy when a student learns
- 74% Population of students with whom teacher works
- 59% Working one on one with students
- 52% Financial reasons
- 49% Smaller class size

The bottom five or least selected reasons for staying were:

- 28% Support from district office supervisor/director
- 26% Collaboration with parents
- 25% Acknowledgment of administrators/parents/others of a job well done
- 24% Opportunity to discuss student education goals and plans
- 21% Professional affiliation with field of special education

Teachers were asked to rate the reasons why they would leave special education teaching. The top five reasons were:

- 75% Special education paperwork
- 62% Burden of dealing with legal requirements and threats
- 49% Disruptive/difficult students
- 46% Became "burned out" from teaching in special education
- 45% Too many students on caseload

The bottom five or least selected reasons for leaving were:

- 21% Personal reasons unrelated to work
- 18% Disagreement with special education policies/practices
- 17% Involuntary transfer to other schools within the district
- 10% Few new professional challenges
- 8% Inadequate training to teach special education

Conclusion

Information provided by experience special educators can be used to address working conditions and job configurations of current Utah special education teaching positions. Taking into consideration feedback provided, school and district leaders may be able to reexamine how special education teaching positions are designed and also provide support to new special education teachers. Additionally, providing opportunities to focus on and reinforce the positions aspects of special education teacher may be helpful in retaining special education teachers.

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SELF-PERCEPTIONS OF RURAL COLLEGE SPECIAL EDUCATION PRESERVICE TEACHERS:
ASSESSING THE APPLICATION OF CURRICULUM CONTENT KNOWLEDGE TO THE ACTUAL
CLASSROOM.

Eastern Illinois University, founded in 1895 is a state assisted multi-purpose institution that has a population of approximately ten thousand undergraduate students. This institution focuses mainly on educating these students in the area of teacher preparation while also assisting other undergraduates pursue degrees in the arts, sciences, and the professions.

Eastern Illinois University's department of special education is housed in the College of Education and Professional Studies and offers four-year degree programs in both early childhood and standard special education (i.e., K-12). Students who graduate from the latter program will receive a LBSI or learning behavior specialist one licensure which will allow them to teach in special education classrooms and work with: (a) students, K-12 having mild to severe disabilities, (b) students having mild/moderate disabilities (i.e., regular education initiative or inclusion) and (c) students having moderate (i.e., self-contained classroom) or severe (i.e., self-contained classroom).

This research study will address the self-perceptions of thirty-six Eastern Illinois preservice special education majors who are concurrently enrolled in SPE 4900: *Instructional Strategies for Individuals Labeled Mildly Exceptional* and SPE 4901: *Practicum with Individuals Labeled Mildly Exceptional*. SPE 4900 is a five credit hour course and is taught by an Eastern Illinois University Professor over a fifteen-week semester. It focuses on curriculum theory and instructional techniques for teaching students with mild/moderate disabilities. SPE 4901 is a four-hour course and is supervised by three Eastern Illinois University practicum supervisors over a twelve-week period. It focuses on the implementation of the SPE 4900 curriculum strategies into the SPE 4901 special education classroom (i.e., self-contained, resource room, and regular education initiative) practicum experience at the elementary, middle school, and high school grade level.

The department of special education at Eastern Illinois University has Eastern Illinois University students take the SPE 4901 practicum concurrently with the SPE 4900 methods class. Their reason for grouping these two classes together is as follows. It is the department's wish to teach the theory of learning styles along with effective curriculum instruction and then allow the Eastern Illinois University student to apply what she/he as learned in the SPE 4900 methods class to an actual classroom practicum experience (i.e., SPE 4901).

SPE 4901/SPE 4900

Two concurrent special education courses must be taking by Eastern Illinois University preservice teachers prior to being accepted into student teaching. These two special education course which must be taken during a student junior's second semester or a senior's first semester are as follows. SPE 4901- Practicum with Individuals Labeled Mildly Exceptional and SPE 4900- Instructional Strategies for Individuals Labeled Mildly Exceptional. The primary learning model for both SPE 4901 and SPE 4900 is the ecological model. In addition, the unit theme for both classes is: The educator as the creator of effective education environments.

- Knowledge of Diverse students.
- Knowledge of Diverse Societies/Communities.

- Knowledge of Diverse Subject Areas and Levels.
- Knowledge of Diverse Strategies.

SPE 4901

SPE 4901-Practicum with Individuals Labeled Mildly Exceptional is a four-credit hour class. SPE 4901 is also a twelve-week supervised field experience that takes place in an elementary school, a middle school, or a high school. The purpose of this practicum is to train students to collaborate with their respective teacher and her/his staff, to create instructional materials for, and teach lessons to students with mild/moderate disabilities, and demonstrate best teaching practices as well as a high level of preservice teacher professionalism

SPE 4901 PRACTICUM SUPERVISORS

The goal of a supervisor is to assist preservice teachers in developing and fine-tuning their instructional skills through "best-teaching" classroom practices that are based upon curriculum theory and research, allowing for the use of hands-on learning and curriculum adaptations that address the learning style/culture of the student being instructed (Friedus, 2002).

SPE 4901: ELEMANTARY PLACEMENT- JEFFERSON ELEMENTARY SCHOOL

The practicum supervisor places nine Eastern Illinois University preservice teachers to complete their practicum experience at Jefferson Elementary School. The practicum supervisor meets with his students on Monday through Thursday from 7:50-8:00 am. The preservice teachers then work in their respective classroom from 8:00–10:15 am. The Eastern Illinois University preservice teachers are randomly assigned to one of the practicum classroom settings: (a) regular education initiative, (b) resource room, and (c) self-contained classroom.

Eastern Illinois University preservice teachers who are assigned to a REI classroom will teach daily oral language, reading, and English. In this classroom, approximately four of the twenty-three fourth grade students have a mild disability. The preservice teacher must teach an instructional lesson to the whole class and also individualize instruction and curriculum materials for the two of the four students (i.e., with mild disabilities) they are assigned to work with.

The Eastern Illinois University preservice teachers assigned to a resource room teach daily oral language, reading, English, and spelling. An instructional period is set aside for tutoring homeroom students who come from the 4th grade general education classroom. Multi-sensory instruction (i.e., using sentence strips, flashcards, or allowing students to work at the chalkboard) is encouraged in this classroom setting.

The Eastern Illinois University preservice teachers assigned to the self-contained classroom teach math, reading, and functional spelling and/or sight words. The preservice teachers incorporate both academic and life-skill instructional approaches to a small group of students in this classroom setting. Lastly, preservice teachers are encouraged by their cooperating teacher to sometimes attend class field trips out in the community.

SPE 4901: MIDDLE SCHOOL PLACEMENT: CHARLESTON MIDDLE SCHOOL

The practicum supervisor places fifteen Eastern Illinois University preservice teachers at Charleston Middle School. She tries to match up the preservice teachers with their talents to the personalities of each cooperating teacher and the middle school student needs. The middle school has students who are in the 7-8th grade.

The practicum supervisor meets with the Eastern Illinois University preservice teachers as a group on a daily basis (i.e., Monday through Thursday) from 8:15-8:30 am in the library to go over expected assignment requirements and any teaching needs or concerns. The cooperating teacher works with their assigned Eastern Illinois University preservice teacher from 8:30-10:30am.

The Charleston Middle School setting has five classrooms in which the Eastern Illinois preservice teachers are placed. Two are self-contained (i.e., mild/moderate) and the other three are resource rooms (i.e., mild). The preservice teachers work with students (i.e., moderate) on spelling, math, and writing skills for the two periods. The preservice teachers instruct students (i.e., mild) in the resource room on science, social studies, and writing skills. The second period of the day, they work on Math or reading comprehension/writing skills. In two of the resource rooms, the Eastern Illinois University preservice teachers get to team-teach for at least two out of the four days of their placement. This means that one practicum student teaches through the lesson objective, anticipatory set, overview, rationale, and input components of the lesson plan. The other practicum student does the check for understanding, guided and independent practice with feedback and reinforcements/correctives followed by closure.

SPE 4901: HIGH SCHOOL PLACEMENT: CHARLESTON HIGH SCHOOL

The practicum supervisor places twelve Eastern Illinois University preservice teachers at Charleston High School. The practicum supervisor meets with the majority of his preservice teachers Monday through Thursday from 8:00-8:20 am (i.e., preservice teachers who are assigned to a reading program begin their practicum placement at 7:50 am. The majority of preservice teachers work with high school students in their respective placement from 8:10-10:15 am.

The majority or two-thirds of the preservice teachers are working in regular education initiative rooms. This is a parallel program for students with mild disabilities and mild mental retardation. The general education curriculum is followed but the material is presented at a lower reading level through the use of textbooks written at a lower reading level (i.e., grades 3-4). The number of high school students in these classes range from five to fourteen. If a high school class has fourteen students, two Eastern Illinois University preservice teachers will team-teach that class.

One-third of the Eastern Illinois University preservice teachers are placed in the EIU reading program is geared toward meeting the reading and English needs of students that read at the sixth grade level or below. Students in the EIU reading program are instructed by the Eastern Illinois University preservice teachers in small groups. These groups usually contain 3-4 students. English and writing skills are taught in the context of reading high interest/low vocabulary books written at the appropriate reading level. The Eastern Illinois University preservice teachers meet with these students Monday through Thursday and then supply them with independent work to be completed on Friday under the supervision of a practicing teacher. The goal of this program is to assist students in successfully reading high interest novels to enhance the enjoyment of reading while building student skills in reading and writing.

SPE 4900.

SPE 4900- Instructional Strategies for Individuals Labeled Mildly Exceptional Is a five credit hour class. SPE 4900 is an introduction to methods and techniques of teaching students with mild/moderate handicapping conditions. Curriculum Implementation, behavioral strategies, and classroom organization serve as the framework for course instruction.

SPE 4900 Methods Instructor

The Eastern Illinois University Special Education Professor who teaches SPE 4900-Instructional strategies for Individuals Labeled Mildly Exceptional has had over ten years of teaching experience at the college level She incorporates technology into her SPE 4900 class through class lectures done in power point and internet assignments activities. She also engages her students through class discussion, role-playing activities, group

reflection activities and group cooperative learning exercises (Mewborn, 1999; Shavers & Joyce, 1996; Nattiv & Winitzky, & Drickey, 1991; Zeichner & Gore, 1990). Once the Eastern Illinois University preservice teachers are out in the field and assigned to their practicum classroom setting, she reinforces how her curriculum content can be applied in their actual classroom settings.

Results from this study will allow Eastern Illinois students to explore effective models of curriculum instruction that they have implemented when working with young learners with special needs in a rural educational setting. This research study is to address the following concerns

1. Ascertain the Eastern Illinois University special education preservice teachers perceptions with regard to their feelings of classroom (SPE 4900) preparation for their practicum (SPE 4901) experience.
2. Determine what this unique practicum experience taught the Eastern Illinois University special education preservice teachers about teaching and working with children with special needs from various grade levels and a continuum of special education classroom placements in a rural educational setting.

RESEARCH METHODOLOGY

A pre-test and post-test survey (i.e., incorporated the use of a 5 point Likert scale) was developed by the researcher to ascertain what challenges thirty-six Eastern Illinois University preservice teachers felt they would have to face in their particular special education/regular education initiative classroom setting.

Prior to administering the survey, objectives were written that corresponded the categories for each survey section. The initial survey was reviewed by two other special education faculty members as well as a faculty member from the department of psychology who is an expert in the field of survey research. This survey was then revised to reflect the comments of the three reviewers. The final version of the pre-test survey consisted of the following domains: (a) preservice teacher preparation, (b) use of curriculum/lesson planning/materials at practicum setting, (c) collaboration with cooperating teacher/practicum supervisor, (d) effective use of behavior management, (e) preservice teacher information, (f) behavior management, and (g) preservice teacher expectations for learning at their practicum setting.

A post-test survey was administered to all thirty-six Eastern Illinois preservice teachers at the completion of their SPE 4901/SPE 4900 experience. The post-test survey differs mainly in the following manner. Question twenty-five ask the preservice teachers about their experiences working in a rural educational setting and how (i.e., if any) they addressed the academic or social needs of their students based upon this "cultural" difference. Because the preservice teacher sample size ($n=36$) was small, frequency counts were used in the analysis of survey data to derive common themes for each of the elementary, middle school, and high school placements. Actual tables incorporating percentages and/or frequencies concerning student demographics and student perceptions of their practicum experience will be presented at a later time.

SURVEY THEMES

SPE 4901 Practicum Survey Pre-Test: Jefferson Elementary School

The majority of Eastern Illinois University preservice teachers were in "agreement" that they felt comfortable in teaching in the content areas of math, reading, spelling, and phonics. While a small minority of preservice teachers were still "undecided" at this point in time. The preservice teachers were somewhat divided in their ability to teach in the areas of science and history. The major of preservice teachers were in "strong agreement" that they would effectively collaborate with through their preservice teacher peers, their cooperating teacher, and their practicum supervisor. The majority of preservice teachers were in "agreement" that effectively carrying out a behavior management plan would increase their "teaching" effectiveness at their practicum setting. The preservice teachers seemed to be somewhat divided in their feelings concerning whether, as a "new" teacher, they should allow more leeway with negative consequences.

SPE 4901 Practicum Survey Post-Test: Jefferson Elementary School

The majority of Eastern Illinois University preservice teachers maintained their level of "agreement" concerning their comfort level in teaching math, reading, spelling, and phonics. About one-half of the preservice teachers did not teach math. So, their actual comfort level with this subject could not be determined. The majority of preservice teachers were in "agreement" that they were able to collaborate effectively with their preservice teachers, their cooperating teacher, and their practicum supervisor. The majority of preservice teachers were in "strong agreement" that carrying out an effective behavior management plan would increase their teaching effectiveness. The preservice teachers will still be divided as to whether giving more leeway to students would benefit them as a "new" teacher in their practicum setting.

SPE 4901 Practicum Survey Pre-Test: Charleston Middle School

The majority of Eastern Illinois preservice teachers were equally divided between "agree", "undecided" and "disagree" as to whether they felt competent to effectively teach students in the areas of math, reading, and phonics. The majority of preservice teachers were in "agreement" that they felt comfortable to instruct "spelling" but were undecided as to whether they could effectively teach in the area of science. The preservice teachers were also equally divided as to whether they could effectively teach history.

The majority of preservice teachers were in "strong" agreement that they would be able to effectively collaborate with their cooperating teacher, their preservice teacher peers, and their practicum supervisors. The majority of preservice teachers also "agreed" that they would be able to effectively team-teach with another preservice teacher.

SPE 4901 Practicum Survey Post-Test: Charleston Middle School

The Eastern Illinois preservice teachers were equally divided in their level of comfort with regard to teaching mathematics and reading. There was an almost equal split in terms of their "agreement" and "disagreement" responses once having taught these subjects. The majority of preservice teachers agreed that they had depended on collaborating effectively with their cooperating teacher, preservice teacher peers, and their practicum supervisor. While their feelings concerning team teaching were generally in agreement, a few more students were either "undecided" or "disagreed".

SPE 4901 Practicum Survey Pre-test: Charleston High School

A minority of Eastern Illinois University preservice teachers were equally split (i.e., been "agree" and "undecided") as to whether they would feel competent instructing math. The majority of preservice teachers were in "agreement" that they would be effective instructing students in the areas of reading and spelling. Preservice teachers were split (i.e., with the majority of given responses being "undecided") with regard to their ability to effectively teach phonics. The majority of preservice teachers were equally split (i.e., across response scales) as to whether they could effectively instruct both science and history. The majority of preservice teachers were in "agreement" that they would be effective in a team-teaching situation with another peer. Likewise, the majority of preservice teachers felt that they would be able to carry out an effective behavior management plan in their practicum setting.

SPE 4901 Practicum Survey Post-Test: Charleston High School

A very small minority of Eastern Illinois University preservice teachers felt in "strongly agreement" or in "agreement" that they were effective in their instruction of math. For the majority of preservice teachers, math was not a content subject area that was taught to these Charleston High School students. A majority of preservice teachers felt in "agreement" that they were effective teaching spelling to their students. The majority of preservice teachers did not get a chance to teach either Science or Social Studies. The majority of preservice teachers were in "strong agreement" that they were successful in their team-teaching experience at this high school. The majority of preservice teachers also were in "strong agreement" that they were able to effectively implement and carry out a behavior management that was consistent in its rules and consequences for the high school students.

THEMES: TEACHING IN A RURAL EDUCATIONAL SETTING

Some of the strategies that the Eastern Illinois University preservice teachers used to incorporate their student's life experience were to: (a) discuss the events within Charleston, Illinois to better explain curriculum concepts, (b) discuss the political system in the State of Illinois, (c) discuss Midwest economy in relation to farming, (d) allow the students to interject their own personal experience such as "horseback riding", "cattle ranching" or "feeding chickens" (e) discuss events that were taking place in the community.

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RURAL STUDENTS BECOMING RURAL TEACHERS: HOW LONG DO THEY STAY?

Abstract:

A study of 310 former education graduates of Chadron State College in Elementary, Early Childhood and Special Education revealed high statistics of employment and retention in the teaching field. When students from rural areas of the midwestern states are employed in small towns and rural areas similar to their upbringing, they have better employment and retention percentages as compared to national surveys of all teachers and surveys of teachers in urban settings.

Introduction

Teacher shortage has been defined in the United States in two ways. First, most states have shortages in specific disciplines of teaching such as special education, math and science, whereas the second type of shortage is created by attrition of the newly hired teachers leaving the profession. As is cited by researchers (Harris & Associates, 1992), nationally approximately 25% of beginning teachers do not teach more than 2 years and 40 - 50% leave the teaching profession within the first 5 years of teaching. According to the National Center for Education Statistics (NCES), one-third of newly hired teachers in public schools and one-fifth in private schools started right after graduating from college. Unfortunately, "... many graduates who teach soon after college do not expect to spend much time teaching, let alone make it a career"(NCES - 2000, p.152). High rates of teacher turnover can be attributed to many factors, but shortages persist and threaten school improvement and student performance (Ingersoll, 2001).

As cited in a Midwest states study, (Theobald & Michael, 2001) the results of approximately 12,000 teachers over a five year period showed a dramatic loss of personnel: 50% of beginning teachers, 23% who moved to another district, but 28% who left teaching all together. Results of this study from the Midwestern states (IL, IN, MN, WI) indicated minority teachers were less likely to leave, gender did not show a significant difference in the statistics of leavers, teachers with graduate degrees had lower turnovers, and the age of entry to be a teacher (over thirty) influenced retention in the field. Separating the data for urban vs. other teachers, urban teachers, regardless of their gender, race, age, or degree status, are significantly more likely to move out of their district. Both groups showed high leaving rates for special educators, math and science teachers. Math and science teachers left the profession to receive higher salaries from outside the teaching profession whereas special educators, like minority teachers, moved within the district or state and were less likely to leave teaching.

Nebraska Department of Education reported in 2000 that 1533 new teachers in Nebraska graduating from teacher preparation programs were certified with a very high percentage teaching in their content area of math, social sciences, English and natural sciences. Additionally, the Metropolitan Omaha Educational Consortium reported that the attrition rate was especially high for those in special education; nearly 50% leave within three years. Some special educators moved to other schools within the large city, but the majority left education. Similar shortages were surveyed by the American Association for Employment in Education (1999) and indicated there were considerable shortages in all areas of special education, with balanced needs in elementary and early childhood positions.

Purpose of this Study

The objectives of this project were:

1. to find the names and teaching employment of education graduates from Chadron State College for the academic years of 1996/97 - 2000/01
2. to report the data of two years and five years of employment since graduation from the teacher preparation programs of elementary, early childhood and special education, and
3. to use the data for evaluation of preservice programs at Chadron State College and implications for other rural four year institutions of higher education.

Description of Chadron State College (CSC), the students, and the education programs

Chadron State College was established in the northwest corner of Nebraska in 1911 as a normal school and evolved into a liberal arts college while retaining an emphasis in the education of future teachers. More than 45% of the approximately 2,500 student population are students going into a career in teaching. Many of the students are described as lower ability because of open enrollment and from less academically-rich backgrounds, being from small towns of Nebraska, Wyoming, and South Dakota. Seven out of ten entering CSC students were first-generation college students (Murphy, 1996). Another study looking at education graduates from both elementary and secondary education for 1996-1998, reported 197 graduates currently teaching with over 75% coming from small towns in rural Nebraska, Wyoming, South Dakota and Colorado and who returned for their first year of employment in similar size communities, less than 10,000 population (Hytrek, 2000).

Elementary Education

Students seeking an Elementary Education Field Endorsement at Chadron State College complete the elementary endorsement in addition to the general studies for all students, the professional education and supporting courses for certification K-8.

Directed observations and field experiences are built into the program at each level. Introduction to Teaching is usually taken the first year of college and has a 10-hour observation component. Educational Psychology is a second year level course and has 15 hours of directed observation. Both times in area schools are frequently done in small towns and rural schools. The third year includes a 100 hour field experience of active observation and participation in either two or three different school settings with teaching activities in small communities and/or rural (one or two-teacher) schools.

The fourth year consists of a professional semester, known as the "block" semester of courses along with student teaching. The block experience consists of eight classes put together in an all-day format. Students stay together for the entire day and are taught in the same room by three instructors. Classes taught include assessment, reading methods, science methods, classroom management, human relations, and curriculum and counseling.

Field experiences also happen during this semester. Every fall, the students go to the Agate Fossil Bed Monument and teach writing lessons to children from rural schools in a multi-county area. Rural school children also come to the CSC for science lessons prepared by the college students as well as Block students traveling to local area schools and other regional schools for teaching science lessons directly in the schools.

Student Teaching is set up the last semester before graduation with a list of three schools of choice. Efforts are made to honor their choices. Some students desire to stay within the driving distance of Chadron, NE, where two elementary schools and rural K-8 schools can accommodate a few students. The rest must choose rural towns in the area of 3,000 persons or less or be placed in small towns from 10,000 – 75,000 persons. The supervision of student teaching for CSC extends into South Dakota, Wyoming and Northern Colorado as well as 1/3 of Western Nebraska.

With Elementary Education, a minor or second endorsement is required from the following: Art, Music, Computer Education, Physical Education, Early Childhood, Science, Educational Media, Social Science, English, Special Education, and/or Mathematics.

Early Childhood Education

Early Childhood Education is offered as a subject endorsement of 33 credit hours and as a minor of 27 credit hours in conjunction with the Elementary Education certification at CSC. Each of the courses taught through the Family and Consumer Sciences department offers students the opportunity to build upon their knowledge base of the developmental process and support the idea that learning evolves over time as a result of this knowledge and experience from the environment.

Course offerings give students first hand knowledge of working with families, service learning projects, and an on-site nationally accredited, natural and inclusive early childhood laboratory as they put into practice knowledge base content while working with young children and their families. The community offers partnerships with other child care providers, health professionals, Head Start, Early Head Start, and community based programs that support field experiences and promote best practices.

Each semester, students are involved in a field trip to surrounding communities to view early childhood curriculum and different environments. Field trips have been taken to Rapid City, and Hot Springs, Pine Ridge, SD and to Alliance, and Scottsbluff, and Chadron, NE.

Preparation of students for working in small, rural communities seems easy since the majority of students enrolling in higher education at Chadron State come from small, rural communities. They also receive a great deal of their early experiences working with children in small, rural communities.

Practical application and realistic views of small, rural towns are presented on a regular basis as well as the view of larger community structures. A professional attitude towards best practices and a high standard for quality promotes the idea that "children deserve the best". Other values of empowerment of families, active involvement of communities, teaming with others, and the understanding of cultures and diversity of populations of small rural communities are emphasized to promote the type of change and networking necessary to resolve issues of education and child care within communities.

Special Education

In 1995, the college switched from a K-9 certification in special education to a K-12 to be completed along with an elementary education certification of K-8. Dual certification of elementary and special education certifications is over 80 credit hours and graduates are trained to teach either general or special education. In addition, a special education minor of 24 credit hours or a preschool disabilities minor of 32 credit hours was selected with elementary education. Since 1997, the special education options have been extended to a secondary education certification 7-12 with a field endorsement in special education uncoupled from elementary education.

All special education options have methods of instruction and accommodations, program management, behavior, assessment, consultation/collaboration, language and adaptive P.E. as the foundation of core competencies. Along with changes in Individuals with Disabilities Educational Act, coursework covers new issues of early childhood services, changes in identification and programming, transitional needs, and new communication skills for inclusion and collaboration of children with disabilities and their families. With early observation and participation in classes and schools, all students are required to complete a special methods class, 100 contact hours in the field of special education along with professional block classes, and student teaching in two placements. The number of credit hours has remained the same in the endorsement, however the amount of information has increased for knowledge base and competencies.

The college has provided many workshops and trainings in assessment, eligibility, assistive technology, sign language, and specific services for early childhood. Evaluations of the special education skills and competencies is based on standards from the Council for Exceptional Children and have been infused into curriculum for courses, special topics for conferences, and workshop trainings in coordination with local school districts. Grant funding from the State Department in conjunction with an Early Childhood Conference offered each spring at CSC, presents teachers and early childhood practitioners new information or changes of IDEA, inclusion of students with disabilities, and the accommodations for low incidence disabilities and behavioral disorders.

Method of data collection

The total numbers of education graduates 1996-2001 in elementary, early childhood and special education were reported from the Registrar office at CSC. Some graduates from 1996-97 and 2000-01 were already identified from the director of field placements and the placement office of CSC. Other graduates not reporting back to the college for employment were contacted by follow up with their parents or by directories of teachers in Nebraska and nearby states. The remaining list of education graduates were contacted by phone to identify where they were employed and whether they were still teaching. If they were not teaching, the reason for not working was listed if mentioned by the graduates or their families.

Surprisingly, the college supervisors know personally where most graduates are located even after marriage or moving from the area by correspondence or connections with area schools when current student teachers are placed from Chadron State College. There are some students who have left the state and thus were not able to be contacted for their present employment or status.

Results

Demographics 1996-2001

All CSC students	Education Graduates			
43.9% male	Elem	18% male	82% female	
56.1% female	EC	0% male	100% female	
	SPED	9% male	91% female	
4% minority		3% minority		

CSC Graduates in Elementary, Early Childhood, Special Education

Years	Total	Contacted	Empl 2 yrs	Empl - 5 yrs
1996-97	58	49	45	39
1997-98	51	45	43	33
1998-99	61	58	52	
1999-00	83	79	72	
2000-01	57	51	44	
total	310	282	260 - 92.2%	72 - 76.6%

By Endorsement

Elementary Education

Years	Total	Contacted	Empl 2 yrs	Empl of 5 yrs
1996-2001	165	144	87.5%	84.6%

Early Childhood Education

Years	Total	Contacted	Empl 2 yrs	Empl of 5 yrs
1996-2001	55	49	93.9%	85.7%

Special Education

Years	Total	Contacted	Empl 2 yrs	Empl of 5 yrs
1996-2001	90	89	94.4%	90.1%

Special Education as an added endorsement or change of endorsement

Years	Total	Contacted	Still Employed
1996-2001	59	48	98%

Summary

Results for CSC elementary, early childhood and special education graduates showed very high percentage rates of employment and continued employment for the first two years with less employed in teaching for five years in the profession. We know these graduates are filling teaching positions in small towns and rural communities of their midwestern states of origin. We also know that CSC graduates are certified to teach in Nebraska and surrounding states with little complication of transferring certification. Mobility of the graduates caused delay to some graduates who did not start teaching until they had subbed for the system and were then hired for the following year. Other graduates who did not pursue teaching after graduation usually were employed in a different profession altogether.

The students with a special education minor or endorsement are easily employed since some states only require the 24 credit hours of a minor for teaching or can be provisionally certified in Nebraska with 20 credit hours. Special Education graduates K-12 have the opportunity to change from a general education position to a special education position or vice versa. Perhaps this dual certification has served the CSC students well in its preparation and leverage in obtaining positions.

As the need has arisen for certified personnel in early childhood special education positions, Early and Head Start programs, preschools, and day and childcare settings, the college has graduates who are able to find employment in these related programs.

Implications

The majority of studies concerning teacher employment and retention actually concentrate on the numbers of individuals who leave. The follow up surveys of these people try to analyze reasons for leaving with implementation of economic, educational, or mentoring type strategies to help retain teachers and make implications for change within the school district or state of teaching certification. This study does not show the type of attrition of teachers two and five years from graduation that other studies have indicated. What makes the difference?

The Chadron State College student population in education indicates these are rural students, mostly Caucasian and mostly female. In rural Nebraska similar to other surrounding states the statistics for employed married females is over 70%. Average teacher salaries in Nebraska are low, but often times, the benefits are worth the low-paid contract in terms of health insurance, safety within small schools, importance of the profession in the community, and employment even if it involves traveling.

Another factor in employment and retention of teachers is the dual certification of Elementary education with an additional field endorsement. We have questioned whether dual certification is a good option to advise and offer students at CSC. Special education is a viable backup for employment and know that rural schools are trying to obtain teachers who have both trainings for their students. Dually certified teachers can be particularly useful in rural areas where the availability of support personnel is less than in urban school districts. Even schools that are served by cooperatives and educational service units have special personnel who are itinerant to several schools with great distance between them.

Another advantage to dual certification of Elementary education with emphasis in early childhood became popular when local school districts began hiring teachers in the primary level with specific training in early childhood. Soon after that, other agencies for early childhood education such as Head Start and preschools were hiring more personnel with college degrees and certification in child development.

Chadron State College in 2002 began a new education certification from the State of Nebraska called Early Childhood Unified. This certifies teachers birth through grade three to teach and work with students and families with or without disabilities. This new certification is with dual background coursework in Early Childhood and Special Education. Early childhood service providers are being asked to work with more inclusive groups of students requiring knowledge of disabilities and its impact on child development.

Close connections to the College for training and graduate programs continue the interaction between college supervisors to their former students, now teachers, for evaluative information to upgrade the preservice programs and emphasis of the types of skills needed in the teaching field. The former graduates have a vital role in shaping the future skills of teaching and teachers. Perhaps a final implication supports the attitude of satisfaction felt among teachers who work and live in small, rural communities. This attitude of teachers is based on making a difference as they touch the lives of children and seeing changes occur within all aspects of the learning process as a positive contribution of educational leadership.

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- Helping Rural Special Education Preservice Teachers Survive the Virtual Wilderness*. Ronda Menlove and Darcie Peterson, Utah State University

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HELPING RURAL SPECIAL EDUCATION PRESERVICE TEACHERS SURVIVE THE VIRTUAL WILDERNESS

Introduction

As more and more university courses and programs are delivered in technology-based formats via distance education, an increasing number of questions arise about effectively advising and supporting distance education students (Palloff & Pratt, 2003). The world of distance learning can be a virtual wilderness for rural distance education students who lack the skills, services, and support to navigate unknown terrain. The availability of quality, technology-based resources greatly enhance the likelihood that students will survive in the wilderness of distance learning (Wager, 2000; Wilka & Fitzner, 1998). Rural distance education students and their advisors need access to helpful, accurate, complete, and supportive information. Traditional models of advising which require students to travel to campus and meet with an advisor to obtain information and guidance will not work in a virtual learning environment (Pevoto, 2000). The use of technology becomes the key factor to enhance an advisor's ability to deliver information aimed at assisting and guiding the increasing number of rural distance education students. In addition, these students must have an opportunity to develop a supportive relationship with a caring adult in the university environment (Crocket, 2002; Pevoto, 2000; Ramos, 2000). The advisor assumes both roles for students entering university distance education programs by providing information and communicating that there is someone who cares about the student. Technology can facilitate both of these roles.

Distance education students living in rural communities are isolated from traditional university resources and support infrastructures. Many are nontraditional students returning to the university. Many lack the technology skills needed to access virtual resources. They need the guidance and support of university advisors whom they can access. The challenge for distance education programs is to create easily accessible technology-based resources coupled with local community personnel and infrastructures to support these students. Development of effective advising models must include discussions of what works and doesn't work and how to replicate or adapt existing advising models. To effectively advise and mentor distance education students, innovative advising models must be developed that combine the effective use of technology and the creation of a local community infrastructure.

Unique Rural Distance Education Student Needs

In developing a distance education advising model, it is important to consider the program to be delivered, the program locations and local resources, and the students and their unique needs. The distance education virtual advising model described in this paper was developed to support the Mild/Moderate Special Education Distance Education Program delivered by the Utah State University (USU) Department of Special Education and Rehabilitation in partnership with Time Enhanced Learning (Distance Education). This distance education program offers students coursework leading to a B.S. in Special Education with licensure in teaching students with mild/moderate disabilities in grades K-12. Students with degrees can also complete the program to receive a second bachelor's degree, a special education mild/moderate teaching license, and/or a special education master's degree. Courses are delivered via an internet-based teleconferencing system with extensive use of the internet (WebCT and email) for delivering course materials, readings, assignments, student feedback, and class projects. Students complete the program as members of a two-year cohort group. Students attend classes in eight remote sites, many of which are located in rural communities many miles from the university campus. University branch campuses are located in all of the sites, however, specific program advising is not provided at these campuses.

The majority of the students enrolled in the program are nontraditional students returning to the university after a long absence. Some are adults seeking to move from a previous career in another field, while others are women who have interrupted their university training to raise a family. About 90% of the students are female, and 80% have children. The average age of the students is 35. Most are employed at least part-time, and many work full-time. Approximately 40% of the students are already employed as full-time teachers in special education classrooms. These students teach with emergency licensure offered from the Utah State Office of Education in areas where there are shortages of fully licensed special education teachers. All of the students enrolled in the program are tied to their local communities and have made a commitment to live and teach in the local schools. It would be next to impossible for these students to move to an on campus location in order to complete a special education degree. Additionally, these students need to be trained to meet the critical shortages of highly qualified special education teachers which exist in every local community served by the USU distance education program. Recruiting special education teachers to move to rural communities is challenging and not often successful. A more effective model is to train rural community members to become special education teachers. Graduates of the USU teacher preparation program tend to stay and work in their local rural communities for long periods of time.

The students need accurate and timely advising information throughout the program in order to make best use of their limited time and resources. An avenue for the students to ask questions and communicate their needs must be provided. The transition to the university should include a local contact that can provide both technology support and a human touch. Students benefit from mentoring through the university coursework (assignments, study groups, practicum) and the university learning culture. The students need reminders and assistance with navigating registration and graduation deadlines, as well as program specific applications and deadlines. One of the biggest needs of these non-traditional learners is technology support at their local sites as well as in their homes.

Virtual Student Support and Advising Model

Initially distance education/technology advising models focused on online delivery of information such as course information, electronic reserves, transcripts, and surveys along with e-mail communication with instructors (Martys, Redman, Huff, Czar, Mullane, Bennett, & Getty, 1998). Subsequent models of distance or technology-based advising extended beyond information delivery to include the use of technology tools to focus on interactions via such technologies as telephone, fax, websites, e-mail, chat, listservs, audio/video conferencing, and virtual office hours (Buchanan, 2000; Pevoto, 2000; Steele & Gordon, 2001; Wilka & Fitzner, 1998). The shift to a focus on virtual communication and interactions is imperative in order to deliver accurate and timely information and to establish collaborative mentoring relationships (Brigham, 2001).

The USU Mild/Moderate Special Education Program support and advising model was developed to focus on providing support for students and facilitating communication as well as delivering information via technology. Goals of the support and advising model are to:

- provide a model that focuses on increasing student success and retention in the university environment;
- integrate strategies that have been proven successful in assisting students via integrating technology and distance education site advisors;
- develop and maintain current on-campus and distance education advising websites;
- continually update website components to include online entrance applications, information sheets, planning guides, admissions checklists, schedules, course offerings, faculty information, and links to financial aid applications, articulation agreements, admission applications, graduation applications, and other university resources as available and needed;
- integrate course materials developed in a WebCT platform into the advising website;
- effectively communicate and establish supportive relationships with students via email;
- use of innovative internet-based audio video teleconferencing technology to facilitate face-to-face interactions with distance education students, faculty, and advisors;
- develop a model for recruiting and training distance education site advisors; and
- develop an advising website specifically designed for site advisors to use as the work with students.

This distance education advising model has developed over a five-year period as the program staff responded to student feedback, student's needs, and advances in technology. It is a collaborative effort with the Department of Special Education and Rehabilitation and Time Enhanced Learning at Utah State University, the

Utah State Office of Education, and the local rural school districts. The model includes the use of websites and technology-delivered materials, preparing students to effectively use technology to learn, and local support personnel or site advisors. This model differs from the virtual, technology-based models proposed in the literature (Wager, 2000) in that it combines a two-fold approach to advising and supporting students. The model combines the use of technology for information delivery and advising interactions with a focus on local site advisors or mentors who meet and interact face-to-face with students. This is a unique combination of services for distance learners.

Websites and Technology-Delivered Materials

Two advising websites are currently used to support the distance education program. The first website targeted to the needs of current and prospective students. The website is used to disseminate program information and provide access to web-based course materials. The student website includes program information, advising information, links to local site advisors, links to USU advising information, links to financial aid information, course schedules, frequently asked questions, learning at a distance guidance, and access to all program course materials via course webpages. Every program course has a course webpage used to deliver information, readings, and assignments to students. Most of this site has unrestricted access for students with the exception of the course materials, which are only accessed by students enrolled in specific courses and site advisors. The website is located at <http://sped.usu.edu/mild>. The second website is password protected and is designed for use by advisors. The advising website was developed to compliment the student website. It provides all of the information that students can access and additional information that only advisors can access: contact logs to use to record information about student interactions, student planning guides, frequently asked questions regarding advising and mentoring, and access to all of the course materials delivered to the students via the course web pages in the Web CT course delivery software. The site is located at <http://spedadvising.usu.edu>. Both websites are designed for access by persons with disabilities. The sites are designed for easy access to information and functionality.

Preparing Nontraditional Distance Education Students

In the initial program cohorts, students and faculty members struggled with the lack of student technology skills. During the initial semester of each cohort program, students spend much of their time learning to access course materials from the course websites and to communicate with faculty members and turn in assignments. As a result, faculty members and students became frustrated. Faculty members were not able to teach, and students were not able to learn. This resulted in a large number of students dropping out of the program after the first semester. To help better prepare students to be successful in the distance learning environment, the Learning at a Distance Workshop was developed and implemented in 1999. The focus of the workshop is to train program students to access technology-delivered information, to learn to communicate with faculty members, and to complete and submit assignments electronically. This training takes place the summer BEFORE students begin the program. Each student enrolls in a one credit course held in their local communities. Students are trained in local USU Time Enhanced Learning site computer labs where available. All lesson materials and applied learning activities are also available on the program website. Students can return again and again to the website to refresh their skills. The materials, activities, and information can be accessed by site advisors as well as they work through technology problems with the students. All students must display mastery of the skills prior to starting the program.

Local Support Personnel and Infrastructures

The local site advisors provide the bridge to help remote learners access the university resources including accurate and timely program information. In addition, they attend classes with the students and work collaboratively with faculty members to assist students with course tasks and assignments. The site advisors are all exemplary graduates of the USU special education program. Site advisors are selected based on exemplary completion of USU's special education program, exemplary special education teaching experience, recommendations from local school districts, excellent communication and interpersonal skills, a willingness to maintain high standards, and the ability to work independently. They understand the program and its demands. All of the advisors have special education teaching experience. Some are full-time teachers, while others are young mothers who want to maintain a professional connection and need flexible working hours. Their role is to advise, support, and mentor students in their local communities as the students prepare for and progress through the program. They are available by email or phone to help students plan out their program and meet program requirements. The site advisors often attend class with the students and provide study groups. Sometimes they supervise the students in practicum experiences.

Site advisors are trained in a number of different ways. Most of the training is done in their local communities; however, sometimes all of the site advisors attend training sessions on campus, usually during the summer. Training is continuous and includes campus training sessions, local site training sessions, modeled advising sessions with actual students, telephone and email question and answer sessions, listserv information, participation in professional conferences, meetings with local school and district personnel, and electronic and print resources.

A part-time distance education advisor advises students and coordinates the training and work of the site advisors. Due to the complexity of and technical nature of transcript analysis, the distance education advisor handles this aspect of advising. The distance education advisor and the site advisors work as a team to support and advise students. The distance education advisor is trained by the department advisor. Funding for the distance education advisor and local site advisors is provided by the Utah State Office of Education, Special Education Services Unit.

In addition, cooperating teachers and university supervisors are hired to assist with field-based practica courses. The teachers and supervisors work for local school districts and are selected based upon their expertise and excellence as special education teachers. They work collaboratively with the program director, faculty members, and school district leadership to develop classroom sites where preservice students can master critical teaching skills.

Funding

Funding distance education advising and student support activities can be challenging in light of limited budgets and a lack of trained personnel. This program receives funding from the USU Time Enhanced Learning Division, the USU Department of Special Education and Rehabilitation, and the Special Education Services Unit of the Utah State Office of Education. Combined funds from all of these entities support a full-time program director who also teaches in the program, a part-time distance education advisor, and a part-time staff assistant. Technology support is provided by the university in the form of about 10 hours per week for a web designer and hardware and software support as needed. Local site advisors work from four to five hours per week and are paid with state office funds. Local district cooperating teachers and university supervisors are paid from course-generated tuition funds.

Impact of the Virtual Advising Model

When the USU special education distance education program began in 1995, the program staff consisted of a director who drove to each of the remote sites to advise students. There was no website or local community support person nor was there a local community infrastructure to support students and practica experiences. This has all been developed over time. As the support websites and infrastructures have been built, the program completion rate has increased from about 55% to about 73%. This is well above the national completion rate of 26% found at similar public institutions. Program leadership and faculty attribute much of the increase in the completion rate to the development of student support and advising websites and local site advisor support (Crockett, 2002). (Table 1.)

Table 1. Program success: Retention and completion rates

Number of Starters	Number of Graduates	Percentage of Graduates	Number and Location of Delivery Sites
9 students began Fall 1995	5 students graduated Spring 1997	55%	2 Roosevelt & Vernal
24 students began Fall 1997	12 students graduated Spring 1999	50%	3 Roosevelt, Vernal & Tooele
41 students began Fall 1999	30 students graduated Spring 2001	73%	7 Roosevelt, Vernal, Tooele, Salt Lake Ogden/Davis, Brigham City, UVSC
39 began Fall 2001	**anticipated graduates 28** Spring and Fall 2003	72%**	8 Roosevelt, Vernal, Tooele, Salt Lake Ogden/Davis, Brigham City, UVSC, Logan

Future Directions

The current student support and advising model is not perfect and needs to continually be updated and revised to more effectively meet the needs of the rural distance education students. Future plans include an evaluation of the advising and student support model and the program websites by graduates, current students, and students who are applying to the program. In addition, national experts in the field of distance education special education teacher preparation will be asked to review the program and advising websites. Based upon the feedback received in the evaluation process, the websites and web-based materials will be updated and revised to more effectively deliver information to meet the needs of the students. An evaluation of the site advisor activities will also be conducted, and training activities developed to provide updated information to the advisors and to train them to effectively support distance learners.

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THE ONLINE DEVELOPMENT PROCESS: CREATING AN ONLINE COURSE FOR MATH METHODS IN SPECIAL EDUCATION

Introduction

This article will discuss the authors experience in designing an online course for math methods in special education.

Structure of the effective online course

Effective online courses contribute to student achievement (Robles & Braathen, 2002). To do this they utilize a research-based design (Vrasidas, 2002). Effective online courses contain several key components. These are; a course management system (Collins et al 2002), a course orientation (Scagnoli, 2001), a course study guide (Carr-Chellman & Duchastel, 2000), a variety of engaging learning activities (Oliver, 1999), and a method for student testing (Cooper, 2000). A final crucial component in of online course design is creating a method for course evaluation (Cooper, 2000; Dominguez & Ridley, 2001).

Course Development

Choosing a management system

Many options are available for managing online courses. Some of the course management tools available are Blackboard, WebCT, Virtual U, and Learning Space. A more extensive list can be found at <http://www.student.seas.gwu.edu/~tlooms/assess.html> Management systems allow instructors to organize materials, and students to contribute to the course because it is amenable to all schedules (Dabbagh, 2002). Before choosing a management tool many things must be considered. Among these are technical features and cost, (Hazari, 1998), and ease of use. WebCT was used as the course management tool for the online Math Methods class because the university supports this management system and provides technical assistance as needed, and the students taking the methods course are familiar with this management tool having utilized it in previous courses.

Developing a course orientation

According to Scagnoli (2001) online course orientations should encourage academic and social interactions. The online orientation must also provide support for the student in the online environment (Collins et al 2002). Utah State University Extension provides an orientation for students wishing to participate in distance education. This orientation was made available for students participating in the online version of the math methods course. Along with this a presentation was created to orient students to the course design and structure.

Creating a course study guide

A course study guide as described by Carr-Chellman & Duchastel (2000), is similar to what traditional courses call a syllabus. A syllabus has three major purposes; (Parkes & Harris, 2002) it serves as a contract between the student and the instructor, it serves as a permanent record of what is to be taught, and finally it serves as a learning tool for the student. The course study guide provides information about issues such as academic honesty, and disability services. In distance education the study guide is an important aspect of the course (Bothel & Enfinger, 1999). It lets students know the course objectives and lets them know what is expected of them. In designing a syllabus for online instruction it is important that all aspects of the syllabus are clear (Kearsley & Lynch, 1996). For the online methods course a syllabus was designed that clearly laid out the course objectives, the activities that link to CEC standards, reading materials, due dates, assignment guidelines, and grading procedures. Included in the syllabus was the university's policy on plagiarism, and a page with instructions on how to obtain disability services. This syllabus was made available online in the WebCT course management tool.

Creating learning activities

Learning activities in the online environment vary from student created online portfolios (McNulty, 2002) to quizzes (Sanchis, 2001). If used appropriately, these activities give students the opportunity to apply the material they have learned (Howell, 2001). To facilitate application, case study activities were created for this class. These activities were included in each of the twelve tutorials contained in the online course. The learning activities were designed to follow the same effective teaching cycle that the students were taught in the class; demonstration followed by guided practice then independent practice. ... The tutorials were divided into three phases. In phase one instruction was provided on a portion of the math methods curriculum. In phase two, the instructor modeled the targeted principles using a case study activity using step by step explanations. In phase three, the instructor guided students through a

second case study by pausing the presentation to allow students to complete the activity. The instructor then step-by-step, modeled the expected response. Finally, students completed a third case study activity on their own and turned it in to the instructor.

Method for testing

Online assessments should measure both the course objectives and student applications (Robles & Braathen, 2002). Tests were designed for this course that mirrored the case studies given in the course activities. In doing this students have the opportunity to apply the course materials in a simulated setting.

Course Evaluation

Online course evaluations usually take the form of student surveys (Robles & Braathen, 2002, Cooper, 2000, Levin et al 1999, Mulligan & Geary, 1999). To be effective they must also assess student outcomes (Robles & Braathen, 2002). The desired outcomes of this course are two-fold. First a evaluation must assess student acquisition of course material, and second the evaluation must assess if students apply the course principles in the field. To evaluate acquisition of course material students completed the math planning and lesson development process with a simulated student. To evaluate application of course principles, students completed the math planning and lesson development process in their practicum sites. Finally, a survey of students' perceptions of course materials was also developed.

Conclusion

Designing online course material for classes is a difficult task. However, many involved in higher education currently face this challenge. It is imperative that these universities design courses that meet the same academic rigor as those classes taught using traditional approaches. In creating these courses key components must be taken into consideration. These components include a course management system, course orientation, study guide, learning activities, and testing. Upon completion of the course an evaluation system must be devised. If online courses contain these key components, and contain an evaluation system that will allow for course improvements, then they will be effective in maintaining high academic standards and promoting student achievement.

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COMPARATIVE EVALUATION OF ALTERNATIVE, DISTANCE, AND TRADITIONAL TEACHER PREPARATION STUDENT TEACHERS

A recent review by McLeskey, Smith, Tyler, and Saunders (2002) describing reports released by the United States Department of Education and other agencies confirms the "severe, chronic shortage of special education teachers in the United States" (p.10). According to the review, ninety-eight percent of school districts reported a shortage of special education teachers. In the 200 largest cities in the United States special education was the educational area reporting the greatest need for teachers. As a result of the shortage, 10 percent of individuals teaching in special education classrooms are not certified to teach special education.

The critical, continuing nature of this shortage has challenged colleges of education to extend their means of recruiting and training special education teachers, often to the benefit of rural communities. Traditional on-campus programs have been augmented by on-line courses, distance education, and the accelerating demand has contributed to the current proliferation of alternative routes to certification. Traditional college-based pre-service certification programs are those that have a combination of subject matter and pedagogy as coursework, with standards developed by NCATE and CEC, and are professionally guided and state approved (Nougaret and Scruggs, 2002; Rosenberg and Sindelar, 2001). ARC programs differ in significant ways from traditional programs and among themselves. They vary from internships for individuals whose initial degree is outside of special education, to district programs for paraprofessionals or substitute teachers. Often institutes of higher education (IHEs) and State Offices of Education and/or school districts form partnerships that provide alternative certification programs. In some states educational entities may obtain State Office of Education approval without IHE involvement.

Quality of ARC programs range from state of the art to poor. Results of studies evaluating quality of ARC programs have been mixed, with traditionally prepared teachers often outperforming ARC students, yet ARC programs often do meet state or district standards (Rosenberg and Sindelar, 2001). Given the current and anticipated special education teacher shortage, and the ardent support of ARC by the United States Office of Education (United States Department of Education, 2002), ARC programs will continue to increase.

The reliance on ARC programs is impressive in many states. For example, Texas currently certifies more special education teachers through alternative methods than traditional (Geiger, Crutchfield, and Mainzer, 2002). The quality teaching has recently received renewed focus (United States Department of Education, 2002). When considering how to prepare quality ARC teachers, the question of quality becomes: What components of ARC programs are required to ensure quality teachers? This question is identical to what is asked of traditional teacher preparation programs, and the answer appears to be identical. Pointing out the similarity of program goals across program types, Roach and Cohen (2002) suggest the following key components of quality ARC programs: 1) Pedagogical and content knowledge; 2) Rigorous entrance requirements; 3) Linking K-12 schools with teacher preparation curriculum; 4) Clinical experiences; 5) Standards. Given similar quality program components, how do the graduates of program types compare?

Effective teaching techniques are those specific pedagogical practices that have been demonstrated to improve pupil-learning outcomes (e.g., Brophy & Good, 1986; Hofmeister & Lubke, 1990; Rosenshine & Stevens, 1986). A summary of indices of effective teaching is provided by Rosenshine and Stevens (1986):

the major components in systematic teaching include teaching in small steps with student practice after each step, guiding students during initial practice, and providing all students with a high level of successful practice...all teachers use some of these behaviors some of the time, but the most effective teachers use most of them almost all of the time (p. 377).

Hofmeister and Lubke (1990), also using the research from Rosenshine and Stevens (1986), identified five phases that comprise the effective teaching cycle (daily reviews and prerequisite checks, presentation of new material, guided practice, independent practice, and weekly and monthly reviews). They additionally describe a *model, test, retest* procedure to correct student errors, a procedure further developed by Martella, Nelson, and Marchand-Martella (2003). Rosenshine and Stevens (1986) found that during guided practice, effective teachers spend more time asking a large number of questions and providing multiple repetitions of opportunities to respond correctly. Good, Grouws, and Ebmeier (1983) suggested that less effective teachers daily covered 37% less material than more effective teachers.

Utah State University's (USU) Special Education Department chose to compare the performance of student teachers on dimensions that reflect pedagogical practices known to promote effective teaching of special education students. The current study evaluates and compares dimensions of special education teaching performance among student teachers from three USU Mild/Moderate teacher preparation programs: traditional on-campus, distance education, and alternative preparation. While originating from the same department, these three programs have different delivery systems. All have rigorous entrance requirements. They share performance standards (NCATE and CEC, along with Utah State Office of Education approval), and have extensive field experiences and school linkages. Given the adherence to national and department standards, pedagogical and content knowledge are similar. Courses in the traditional and distance programs are delivered over a two-year period. The traditional on-campus program is mirrored in the distance education program as it provides identical courses delivered by means of an Internet based teleconferencing technology. This uses two-way compressed audio/video with courses taught by USU special education faculty. All students are supervised in their practice and student teaching by USU faculty. USU's Alternative Teacher Preparation (ATP) program is designed for individuals who have a bachelor's degree and are willing to teach in a special education classroom during the one-year training period prior to certification. Pedagogical and content courses are modified to fit the compressed schedule while classroom teaching experiences are much more intense than in the other two programs. School district personnel collaborate with USU faculty to shape the course modifications and to supervise the students in their teaching assignments.

USU's development of a comprehensive performance evaluation tool began when a literature review uncovered the lack of valid and reliable performance evaluation instruments that could compare student teachers across the three program types. USU's Special Education Student Teaching Evaluation Form was chosen as the foundation for a new instrument. Preliminary field testing led to extensive revisions, including detailed operational definitions of each item and scoring procedure. Teacher performance examples used to clarify items were developed from the field trials and supportive field-based materials accompanying the original USU form (Lignugaris/Kraft, 1995). During this process two developers attended Utah's Jordan School District training in JPAS (Jordan School District Performance Appraisal Systems, version 3, 1996) to refine observational skills and methodology. Collaborative revisions and field tests alternated over many months, with several USU faculty contributing to this process. Field testers observed student teachers, resolved rating differences, and revised the instrument and evaluation process to enhance standardization and increase inter-rater reliability. The creation of procedures to structure quantitative data collection during lessons greatly improved the standardization of the observations. Refinements to the forms and procedure continued until the developers succeeded in achieving 100% agreement in their observation scores. Additional observers will be trained using video and classroom observations to 80% agreement.

The student teaching evaluation consists of 19 items. Each item is scored separately with minimal overlap. An observation sheet is designed to collect frequency counts, student seating arrangement, and duration data. A score sheet is used to summarize data by assigning numerical values to each item at the conclusion of the observation. The rating scales also include operational definitions and examples to guide the scoring.

A lesson plan is obtained from the student teacher at the beginning of the observation. The quality of the lesson plan is judged on whether the entire teaching cycle is structured into the plan, along with sufficient teaching and practice, and clear explanations and format. The lesson activities are further judged on whether or not they promote lesson objectives.

Five items are observed during the new material and guided practice phase of the student teacher's lesson (*sufficient opportunities to respond, uses appropriate correction procedures, sufficient rate of reinforcement, pupil engagement, and uses class time efficiently*). *Pupil engagement* and *uses class time efficiently* are also observed during independent practice, as is *active monitoring during independent practice*. These items are recorded on the observation sheet.

Sufficient opportunities to respond, uses appropriate correction procedures and sufficient rate of reinforcement are collected during three minute intervals during the new material and guided practice phase of the student teacher's lesson. An opportunity to respond is defined as a teacher initiated opportunity for student response. Student responses are recorded as correct or incorrect. Following an incorrect response, the student teacher's test and retest behaviors are also recorded. The number of opportunities to respond is converted into opportunities per minute and scored accordingly.

Uses appropriate correction procedures is measured by recording whether or not the student teacher uses the entire correction procedure (i.e., model, test, retest), a partial procedure, or no correction. The data are converted to a percentage of full or partial error corrections and scored. *Sufficient rate of reinforcement* is evaluated by recording each praise statement made during the three-minute intervals. These data are converted to reinforcement per minute rate.

Pupil engagement is collected between the 3-minute frequency count intervals in which the above data are collected. As time permits, three samples are collected during the new material and guided practice, and three more collected during the independent practice. Prior to the observation, the classroom seating arrangement is diagramed and each student is assigned a number. The students are observed in the order of their numbers using a 10 second momentary time sample observation method. Pupil engagement data are aggregated to get an average percent of students engaged across all observations.

Uses class time efficiently is based on data recorded throughout the lesson. Total class time and class time not being used to promote academic learning are recorded. The percent of class time wasted is subtracted from 100% of total time.

Active monitoring during independent practice records every monitoring interaction the teacher has with each student during this phase of the lesson. The classroom-seating diagram is used for marking the pupil-specific frequency tallies. After independent practice concludes, the number of student contacts per minute and the percent of total students contacted are computed and converted to a numerical score.

The remaining items are scored upon completion of the observation. *Uses effective teaching cycle* measures how many phases of the effective teaching cycle are demonstrated in the lesson. *Clear formats, activities, directions, and interactions with pupils*; and *positive and enthusiastic* are scored according to operational definitions. *Quality of reinforcement* (i.e., contingent, specific to behavior, varied across behavior, non-disruptive, sincere, and appropriately distributed), and *uses low-key behavior management tactics* (e.g., planned ignoring, proximity control, eye contact, etc.) are also based on operational definitions. *Accurate presentation of subject matter* examines the accuracy of the factual instruction that the student teacher delivers. For example, errors modeled in a math lesson would reduce the student teacher's score.

After the observation, an interview is conducted between the observer and student teacher to obtain further information. Qualitative information is collected to assess some aspects of the lesson and overall instruction. First assessed is the extent to which the student teacher *follows the behavior management*

plan (e.g., does the behavior management plan enhance learning and include the rules and sequence of consequences).). *Uses moment-to-moment performance to influence teaching* is observed during the lesson and followed up with interview questions. *Collecting data relative to IEP objectives*, and *uses day-to-day pupil performance to influence teaching* examine how the student teacher collects data and uses it to guide curricular decisions. Observations are followed up with evidence supplied during the interview. *Data used to modify management plan for class or individuals* also considers observational data and evidence supplied by the student teacher to demonstrate data collection and its use.

Between the authoring of this paper and its presentation the observational data collection will have begun. The training of observers will consist of: 1) familiarization with the observation form and the protocol for it, including a model script for the interview portion of the observation; 2) familiarization with the score sheet and the operational definitions associated with it; and; 3) practice in use of the forms using both videotaped teaching vignettes and classroom observations. Training will continue with each observer until at least 80% point-by-point accuracy is obtained.

Currently the traditional and the distance education programs each have sixteen student teachers, and the ATP program has 53 certification students teaching in mild/moderate classrooms. It is our goal to have all observed and evaluated at least once before the end of the semester. The researchers will conduct reliability checks on 20% of the observations. Data will then be compiled and analyzed over the summer.

In this study, three kinds of special education certification programs with many equivalent key components are being compared. This comparison minimizes program quality differences while assessing outcomes according to program type. USU and its school district and State Office of Education partners will use the results to improve teacher training. Results can also be used to enhance a data-driven vision of possibilities in teacher training. As an extension of this study, plans are underway to follow this cohort of newly certified teachers into their first year on the job. They will again be observed and evaluated with this instrument. The follow-up will also obtain standardized measures of pupil outcomes to ascertain the validity of the teacher measures as indicators of quality, as pupil learning is the real end product of teacher preparation and certification procedures. Finally results will be analyzed according to location of the teacher to see if there are differential outcomes among USU's program graduates in urban, suburban, and rural settings.

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WHAT PRESERVICE AND FIRST YEAR TEACHERS NEED TO KNOW TO SURVIVE AND THRIVE

Introduction

During the first five years of special education teaching, up to 50% of all new teachers leave the profession (Ingersoll, 2001). During the past three years, approximately 50% of all new Utah special education teachers left during their first year of teaching. The number of leavers increased to 60% the second year and then leveled out the third year (Morgan, 2002). Why do so many beginning special education teachers leave the field? One answer may be the working conditions related to special education teaching--such as paperwork, challenging student behavior, a lack of materials and resources, and a lack of support--have been identified as a primary cause (Brownell, Smith, McNellis, & Lenk, 1997). The question then becomes one of whether or not university teacher education programs are preparing preservice teachers to meet these demanding conditions.

Survey Process

To begin to address this question, a small group of undergraduate students at Utah State University (USU) decided to survey preservice special education teachers, student teachers, and first year teachers regarding their concerns as they anticipated going into their first year of teaching and how those concerns changed over time. The questions addressed what concerned them going into their first year of teaching; what types of supports they are expecting from the district and the school; and what areas they feel they need more preparation; and what they would like district and school personnel to know about them.

As we reviewed the answers from the survey we developed a more detailed survey from their responses. The survey was made more specific by listing specific concerns such as IEP paper work, organizing and filing state and federal paper work, scheduling the day for students, writing goals and objectives, and interacting with general educators. These changes helped us better assess what the preservice students were thinking, and thus improved the accuracy of the survey. During the development of the survey we wanted to understand how the preservice student felt. We also wanted to gain a better understand how the attitude may change over time by administering the survey to student teachers and first year teachers. Survey questions were the same on surveys for student teachers and first year teachers with a few additional questions about how their concerns have changed and what could have been done differently in their university classes to better prepare them to meet the demands special education teaching.

The survey was given on a voluntary basis to all the students who are currently enrolled in USU special education program through preservice training and student teaching and those teachers who have graduated from USU and are currently in their first year of teaching. Participants were asked to answer the question given by rating their responses as (1) no concern, (2) concern, and (3) great concern. We asked the participants to rank their top five concerns based on the questions from the survey. A section was also provided to give participants the opportunity to add any other concern not listed. From this survey, we hope to be able to help the students address any concerns they have about moving to preservice. In addressing these issues, we hope that we can continually improve the preservice special education program at USU and thereby improve the likelihood that the preservice teachers will become highly effective special education teachers who stay in the field.

Survey Results

The survey population included current preservice students, student teachers, and graduates of the USU special education program who are first year teachers. The initial focus was preservice teachers and their concerns. We also wanted to see how those concerns had changed from student teaching to the students' first year of teaching. Approximately 60 participants responded: 6 first year teachers, 17 student teachers, and 36 preservice students.

Survey responses were tabulated, and the data analyzed. Participants rated their highest five concerns. The top three concerns were distinct, but the fourth and fifth concerns varied widely with multiple responses. The top three concerns are displayed below in Table 1. All groups rated the same concern highest: effectively meeting all demands and roles of a special education teacher. The full results will be tabulated and analyzed in the future.

Table 1. Top three concerns of survey participants as compared by group

Preservice Students	Student Teachers	First Year Teachers	Preservice Students	Student Teachers	First Year Teachers
<u>Top three concerns</u>			<u>Percentage</u>		
Effectively meeting all demands and roles of a special education teacher	Effectively meeting all demands and roles of a special education teacher	Effectively meeting all demands and roles of a special education teacher	88.2%	77.8%	83.3%
Conducting an IEP meeting	Managing classroom and student behavior	Managing classroom and student behavior	76.5%	47.2%	50.0%
Knowing how to complete IEP paperwork	Knowing how to complete IEP paperwork	Other—(testing, getting caught up, juggling it all)	52.9%	44.4%	50.0%

Participants provided comments about such things as experience, other concerns not addressed in the questionnaire, and how their concerns changed from preservice to student teaching and student teaching to their first teaching position as a special education teacher. While the majority of the participants had some type of experience working in a special education classroom, seven participants had no experiences or did not respond to the question. Experiences consisted of being a peer tutor during high school, having a sibling with a disability, or working in a classroom or for an agency. Many worked as volunteers with Special Olympics or within a church organization.

Participant comments about concerns not listed in the survey:

- *"Finding time to do functional behavior assessments and set up behavior plans for severe behaviors."*
- *"Transition IEP meetings."*

- *"Devising a curriculum that is in harmony with my core beliefs about education and people. Making a positive difference in the lives of my students."*
- *"Being appreciated and treated like a respectful person--a professional"*
- *"Paperwork--hard to get caught up on. Testing--also finding the time"*
- *"I am not worried so much about the first day of school but the few weeks that will follow when behavior problems start to show up."*

Additional questions were asked of the student teachers and first year teachers about how their concerns have changed; and what could have been done differently in their course studies to better prepare them for teaching. Responses to the question "Have your concerns changed from student teaching to your first teaching experience?"

- *"Less concerned about the paper work as I gain experience; it comes easier. Jumping through hoops."*
- *"Concerns pretty much same. Time management a problem, getting sufficient data collected, and ownership of special education students by regular education teachers still a problem."*
- *"Yes, there was a greater concern in scheduling and meeting the needs of all involved in each student's education."*

Responses to the question, "Have your concerns changed during student or first teaching assignment?"

- *"Somewhat. I now realize that although I've been well-prepared in my coursework, putting all of those things together in a "real" classroom is an overwhelming, but exciting challenge."*
- *"I had a wonderful cooperating teacher and she helped me to have confidence in my teaching. She really showed me how things worked and answered all my questions."*
- *"There is so much to know about funding, paperwork, and scheduling students that I never realized...."*
- *"I am very concerned now with placing the students in the appropriate setting. I want the best level of support for them. I am also concerned with the level of accommodations for my students. How much should they be expected to do at grade level-since they will be expected to take grade level core tests?"*
- *"I've realized that a lot more goes into teaching than I knew before."*

Responses to the question, "What could have been done differently in your university special education training to better prepare you to meet the demands of special education teaching?"

- *"To role play IEP meetings with professors. Then they could have told us what went well and what didn't."*
- *"I personally needed just a little more instruction in all the paperwork and "reality" junk stuff that special education teachers are in charge of."*
- *"More explanation of how to determine what category a student falls into (classification). More review of paperwork."*
- *"I feel that I was well-trained and prepared to enter the classroom. I would have liked to learn more about specific disabilities and meeting the educational needs of students with those disabilities."*
- *"More large group behavior management in the severe program."*

Responses to the question, "What advice would you give to university students preparing to become special education teachers?"

- *"Take every assignment very seriously and as if you were doing it on your own as a teacher. Will you be able to do this independently? Approach your coursework through your practicum. That is where you gain real experience and can practice what you've been taught."*
- *"Work hard at school. If you can, don't work while you are in school. I didn't and I feel like I reaped some benefits because I was able to get the in depth knowledge of the theories behind educating students with disabilities. These theories, put into practice, make sense of the things I encounter in my job everyday."*
- *"To take it a day at a time and expect to be really busy and to rely on their supervisor and cooperating teacher. They are there to help you...also, don't procrastinate!"*
- *"Get as much out of the practicum as you can. Take as much responsibility as the teacher will allow in managing the classroom. Take initiative!"*
- *"Try to review everything you've learned especially about special education law."*

- *"Try to get as much experience as you can working in educational settings to better understand what is being taught in your university classes."*

Personal interviews

In addition to conducting the survey, we asked three USU students, one preservice student and two first year teachers, to write a personal perspective addressing their concerns about becoming a special education teacher and how those concerns had evolved through student teaching and into the first year of teaching. The first year teachers both teach in very different settings. One teaches in an urban high school classroom for students with severe disabilities. The other teacher works in a rural private school with students with mild/moderate disabilities.

Personal Perspective--Preservice mild/moderate disabilities teacher

"I hear, I forget. I see, I remember. I do, I understand." –Chinese Proverb. To be honest, I never wanted to be a special education teacher. I thought it just simply was not for me. As most entering freshman in college, the daunting question echoed in my thoughts, "What am I going to major in?" It took me a year and a half to decide after a close friend suggested that special education might be something I could possibly good at. When she first mentioned special education, I thought, "That is only for really unique, extremely kind and patient people like my sister-in-law, Jenny or my Aunt Rosie, not me!" Yet, as I considered all of my options special education just felt right. So, I transferred universities, and I entered the Department of Special Education and Rehabilitation at Utah State University a year later. I am currently a preservice, undergraduate student. I will graduate with a dual major in severe and early childhood special education in the spring of 2004.

For the past 20 years or so I have been in a school setting. From preschool to the present, I have been a student. I have had the opportunity to play the role of teacher through informal settings, summer camps, and practical experience. Yet, I have never been THE teacher. My major concern right now as a preservice teacher is to be able to apply what is being taught in my university classes to when I am THE teacher. I truly desire to study well, read all of the chapters and articles and not do all my assignments last minute, but I'm a product of our school systems. Get the "A" and move on. I am stuck in the rut of sitting unengaged in hours of classes and simply trying to get through the day. There is simply no time to study all of the material and information we are supposed to learn. In addition, I realize that there is a difference in "learning" in school and retaining and applying it in the classroom.

As part of my preservice training, the professors require each student to spend an allotted amount of time in a local special education classroom. For me this experience has been the most valuable. From passively learning in the classroom, to observing cooperating teachers and having to execute teaching skills, I have a far greater understanding to what is essential in running a classroom. However, only a few hours a few days a week in the classroom there are many roles of being a teacher that I have yet to experience. As I picture myself in the classroom setting, I worry about managing the classroom, organizing the day, choosing curriculum and filling out paperwork appropriately. I'm scared with the thought of me being the one in charge and the one responsible for the students. But, I know that being scared is healthy and I am confident that in the future my apprehension will continually subside with more experience in the classroom.

Along with my apprehension, there are areas of teaching where I do feel more confident. Others have helped me to by pointing out my strengths as a leader and as a teacher. I am not worried about working with paraeducators, other teachers, administrators and parents. I've had many extracurricular and work experiences that have helped me understand social and collaborative skills to be applied as a teacher. Although, I am not perfect, I know that I do have skills that are to be used to help and assist others.

Overall, as most individuals enter a new field or stage of life, the questions remain, "Am I prepared? Have I learned all that I need to learn? Could I have done more?" and finally, "Where will I be in the next few years? I never thought that I wanted to be a special education teacher. But, I have grown to understand, it is just right for me.

Personal Perspective--first year teacher teaching in a mild/moderate class in rural private school

My early years of college were spent trying to discover what I wanted to specialize in to obtain my degree. I considered the worlds of computer programming, business, recreation, and of course, education. Because this was

such an important decision for me, I decided not to rush and earned an Associate's Degree in General Arts and Sciences. I transferred to Utah State University still unsure of what to study. I gathered information from various departments and seriously thought about what was best for me. For several weeks I was confident that I would someday work with computers and was anxious to begin taking courses. About one week later, a thought came to me so strongly that it made me change my mind completely. I remember telling myself, "I don't want to work with machines. I want to work with people." Since that self-discovery, I have not looked back or ever questioned my decision, and I graduated from USU in December 2002, with a dual major of Special Education and Elementary Education. Currently, I teach second and third grade at a rural private school.

Meeting expectations and addressing concerns are always on the mind of any individual involved in education. When I was a preservice teacher in the Special Education and Rehabilitation Program at USU, the biggest concern that I had was being able to know state and federal laws and comply with them. I also worried about correctly filling out forms, filing, and organizing what I records I had. I entered the program with the understanding that special education teachers must know what he/she and the students can or cannot do, and I wanted to obtain that knowledge in order to accurately fulfill my duties as an educator and develop the training necessary to do well.

My student teaching experience helped me gain a better understanding of what to do when working with special education law because I was able to fill out federal and state forms, conduct and attend Individual Education Program (IEP) meetings, and design curriculums that were based on the goals and needs of each of my students. I knew that there was still much to learn about the law, but I gained confidence because I was able to have hands-on experiences that enhanced the instruction I was receiving at USU. Concerns about behavior in the middle school setting taught me more about interventions and positive reinforcement, but I still feared that an intervention would not be effective or meet the needs of the target student. I started to feel the pressure that teachers often feel to effectively meet all the demands and roles of a special educator. I became discouraged with the many things that needed to be taken care of before I could even begin giving instruction and helping the students obtain the academic knowledge planned on their IEPs. The stress of paperwork, meetings, scheduling, and data collecting often took more time and effort than teaching. Although I understood that these issues needed to be taken care of, my true desire was to teach, and I was frustrated that everything else was taking precedence over that desire.

I still encounter the concerns mentioned previously, but I have a better understanding of what to do and how to address the situations that occur. Having a mild/moderate emphasis, I work with students that encompass a variety of learning disabilities. Much of my time is now spent learning about the different disabilities that students have and how to individually help the child succeed in school. My concerns have now shifted to wanting to be more educated in diagnoses, learning strategies, and medication so I can better understand the minds of my students and serve them more effectively. I know that this knowledge will be obtained as I continue to work with students. There is no possible way one can learn everything there is to know before entering the classroom, which is why I love teaching. It gives me the opportunity to be challenged as my students are every day.

Personal Perspective--first year teacher teaching in a severe classroom in an urban school

I graduated from the Utah State University Severe Special Education Program in December 2002. I began the Special Education program at Utah State University in fall 2001. As I taught in several practicum positions in different settings, I realized many concerns. For the most part, my concerns were focused on developing lesson plans, completing evaluation and assessments for students, and being able to develop individual curriculum for each student. Many of these were not required for me to be successful in the classroom but to be successful in my college coursework. During my preservice training, my efforts were focused mainly on one or two students in a classroom and developing behavior and academic programs for those students. I did not have the responsibility of managing the entire classroom.

During student teaching, many of my old concerns were resolved, and I noticed new concerns. For example, I began to understand that there isn't a need to develop a specific, individualized curriculum for each student, as I had done in my preservice training. There is no need to "reinvent the wheel." I learned to use many programs that have already been developed and rely on the developments that other teachers had made. My focus

during student teaching was directed more toward paperwork and the IEP process. I found it difficult to link the many components of assessment, data collection, goals, and curriculum together to form an Individual Education Program. However, I was very supported by my cooperating teacher and was able to learn how to do this. Another concern that emerged when I was placed in the more responsible role of student teacher was managing student schedules. The organization of managing the comings and goings of students with severe disabilities continues to be a time-consuming, laborious task.

In January 2002, I began teaching in a functional skills classroom for students with severe intellectual disabilities in a large urban high school. The special education department consists of four resource teachers, one learning center teacher and two (including myself) severe teachers. I am responsible for nine students, five of which are classified under ID. The others are classified as multidisabled. I am responsible for managing two part-time and two full-time aides in addition to fifty-four high school peer tutors. The largest concern that emerged in my first days of teaching is the management of aides and peer tutors. Management was not the subject of coursework during my preservice training and I spend a majority of my time managing and evaluating the personnel in my classroom. This is my greatest concern, as I am unable to fulfill my other responsibilities as a special education teacher if I have not managed my staff and support.

During the first month of my teaching career, I became involved in a legal situation. Although conducting meetings with lawyers and several district representatives was stressful, this situation resulted in a greater concern; the constant questioning of whether or not my lessons and files are in compliance with state and federal laws. The concerns that I had as a preservice and student teacher have been moved to the back burner as I strive to make my files and lessons consistent and in compliance with the laws. Other concerns that have developed during my first year of teaching include parent interaction and interacting with general educators. I believe these concerns will be resolved with experience, although there will be as many new concerns as there are new members of my teaching teams. I am gracious to be in a district where I have support from the special education and behavior specialists at the district level. Without that support, my concerns would be much greater.

What next?

There are a variety of directions to pursue with this information. The first step will be to conduct a more in depth analysis of the survey data to explore the results and what they might mean. Another step would be continue the survey process by expanding the survey sample and continuing to gather information from new teachers who are entering the field in a variety of settings and geographic locations. Another direction to pursue would be to follow new teachers into their second through fifth years of teaching when attrition for new teachers seems to be highest (Ingersoll, 2001; Morgan, 2002) and interview them to see how their concerns evolve and what they do to successfully cope with the challenges they face. In addition, new teachers who leave during the first five years could be interviewed to explore how their concerns changed and evolved to the point that they chose to leave special education teaching. Hopefully, the information gathered in this process could be incorporated into university preservice and district/school inservice training to better prepare and support special education teacher. The long range goal would be to increase the likelihood that this population of special educators would stay in the field.

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**EVALUATING TEAMING SKILLS
IN A RURAL UNIVERSITY CLINICAL EXPERIENCE:
CONTINUATION ACROSS TWO SUMMERS**

Over the past decade, a national shortage of qualified teachers has been well documented in the education literature, causing a high number of unprepared and non-certified personnel to provide instruction to students, including those with disabilities (USDOE 2000). This shortage impacts rural special education because openings may be more difficult to fill in rural districts, causing a number of teachers to serve on emergency or waiver of certification status (Boe, Bobbit, & Terhanian, 1998; Lemke, 1994). Faced with this teacher shortage and the need for standards-driven school reform, collaboration and consultation among teachers is required for successful problem solving and whole school viability (Friend and Cook, 1990).

Another reason for the growing need for collaboration is the increasing presentation of diversity in student needs. There is a national trend toward using teacher teams and collaboration to solve various learning and behavioral problems in public schools. This trend continues in importance because students in public schools are continually presenting more diverse needs, and no one teacher possesses all the expertise necessary to address the many and varied issues that emerge in classrooms (Johnson, Pugach, & Devlin, 1990).

Collaborative consultation empowers educators, parents, and students. Collaboration has been common in schools even before becoming popular on a broad basis because of the historic need in rural areas to share scant resources (Martin & Williams, 2000). Therefore the preparation of pre-service and in-service teachers to participate in and contribute to team decision-making for students with diverse and exceptional needs is especially imperative in rural areas.

Team collaboration requires redefinition of roles and structures in conjunction with reflection on practice (York, Kronberg, & Doyle, 1995). Team development occurs in stages (Joiner, 1993). Each stage adds a dimension to the team's effectiveness (Are we doing the best job possible?), efficacy (Are we doing the best possible job in the best ways possible?), and efficiency (Are we doing the best possible job in a timely manner?).

In addition, at all levels of education, there is a focus on performance indicators of expected learning. With the shift from curriculum-based to performance-based measures that require knowledge and skills, this method of evaluating team member performance provides reliable data to indicate that pre-service teachers perform at levels of competence required to meet NCATE Standards. The evaluation tools developed for this project will assist instructors to sort out who are meeting national criteria, an essential component of program evaluation.

Program Description

During the Summers of 2001 and 2002, a rural preparation and training program for special educators was conducted with both a pre-service and an in-service focus. A university-based Summer School was provided for community children. Included were children with various academic, social-emotional, and/or behavioral disabilities who were referred by their parents and teachers. These Summer school experiences provided clinical opportunities

for three university special education courses, Methods of Instruction, Learning Theories in Special Education (the Behavior Change course), and Assessment. All three of these courses carry a practicum component. To fulfill the practica, Methods students planned and implemented instructional activities for small groups of children. Learning Theory students conducted functional analysis, planned and implemented behavior change programs for individual children, and evaluated the effectiveness of the behavior change. Assessment students conducted formal and informal assessment of the academic needs of individual children.

One student from each of these courses served on a collaborative-consultative planning team. Each child had a planning team. Each student had an expected roll to perform on the team in relation to the child. Teams met once per week over a five-week period. Results were brought to team and interpreted in team. Problem solving was based on the on-going team assessment. These teams were designed to simulate actual in-school Teacher Assistance Teams, which were unavailable to university students during summer months.

Method

There were three instruments designed for this project serving two functions. One was an observation checklist to provide formative assessment of team process. The other two were summative evaluations of team member performance: the reflective self-evaluation tool, and the instructor rating of individual performance. These instruments were developed through consultation between the two instructors, and their implementation was thoroughly rehearsed to increase reliability of inter-observer agreement and minimize observer drift.

Team Behavior Observation Checklist was the formative instrument used by the two instructors to document team progress across the five team meetings. The form contained a frequency chart and a checklist. The frequency chart documented each member's demonstration of active listening, contributing, disagreeing agreeably, questioning, and encouraging others to participate. These frequencies were totaled for individual team members and across behavioral factors. Along with the frequency chart was a checklist of the five stages of team planning. Team planning stages were as follows: 1) establishing a team, (2) problem identification, (3) generating interventions, (4) intervention implementation planning, and (5) evaluation of the intervention. The observing instructor circled each of the stages demonstrated by the team during observed a team meeting. Note that a team could demonstrate more than one stage during any meeting.

Team Self-evaluation was a summative instrument used by students to reflect on effective team participation and on whole team function. This form consisted of six questions. Items 1-5 were answered by individual team members, the team then discussed one or more items of their choice in detail, and responses to item 6 summarized team discussion of their chosen items from 1-5.

Individual Summary Evaluation of Team Work was a summative evaluation of the individual team members' performance by the instructor. This five-point, Likert-type scale addressed how individual members contributed to the teaming process and the effectiveness of the team effort using the characteristics of prepared contributions, interpersonal skills, team planning, team decision-making, and team evaluation of effectiveness. At the end of the practica, the instructor evaluated each student once using this summative tool.

Research Questions

To demonstrate a model of collaborative pre-teacher teaming experience and describe its evaluation process the following questions were explored:

1. Did the team's behavior progress through the stages of consultation: establishing the team, identifying the problem, generating interventions, implementing interventions, and evaluating the effectiveness of interventions implemented?
2. Was there evidence of preparation, participation, and process improvement in the Individual Summary Evaluation of team work by members?

3. Were the team members able to reflect on and make at least one recommendation for the improvement of team process?
4. What were the cross-validating, common themes among instruments: Team Behavior Observation Checklist, Team Self Evaluation, and Individual Summary Evaluation of Team Work?
5. Would a second set of data yield similar results across research questions 1-4?
6. To what degree did Assessment and Learning Theory students agree in their responses to the Team Self-evaluation items 1 through 5?
7. To what extent did the team self-evaluation ratings agree with instructor ratings of similar items on the Individual Summary Evaluations?

Analysis

Multiple case sampling increases validity, and cases may be chosen on the basis of conceptual grounds (Miles & Huberman, 1994). Each evaluation instrument presents a case for comparison, and instructor-posed questions serve to bound the cases in terms of what would be examined. Case comparison across time, that is replicating the described teaming process with another cohort of university students, increases construct validity and provides a measure of reliability for these three instructor-made instruments. Hence, this study is a replication of and extension of previous work at this rural university (Friedland & Walz, 2002).

Question 1: The Team Behavior Observation Checklist was used in order to determine the teams' progress through the stages of consultation. The instructor assigned to observe each particular team recorded incidents of demonstrated team behaviors related to the consultation stages at a given meeting. In 2001, there were 45 instructor observations made over the five-week period. In 2002, there were 27 instructor observations. The data was analyzed by counting the frequency of demonstrations of each stage of team planning.

Question 2: The Individual Summary Evaluation of Team Work was used to determine the individual members' degree of preparedness, participation and reflection on the team's process. The instructor rated each student at the end of the practica experience. A histogram was constructed of the group's ratings for both overall performance and by each characteristic.

Question 3: The Team Self-evaluation was qualitatively reviewed to determine whether Learning Theory and Assessment students offered at least one suggestion for improving team process in retrospect.

Question 4: Qualitative comparison was conducted to determine if there were some cross-validating common themes among these three instruments: Team Behavior Observation Checklist, Team Self-evaluation, and Individual Summary Evaluation of Team Work?

Question 5: A second set of data, Summer 2002, was examined in the same ways as for data collected in the Summer of 2001 to determine if similar results would be obtained across research questions 1-4?

Question 6: Assessment and Learning Theory students' responses to the Team Self-evaluation items 1 through 5 were qualitatively compared for patterns of agreement.

Question 7: Team Self-evaluation Summaries were compared for agreement with instructor ratings of similar items on the Individual Summary Evaluations?

Results

For both Summers, 2001 and 2002, checklists of stages of team planning frequency count indicated all teams progressed through the five stages of consultation. The first week all teams demonstrated stage one establishing the team, although in 2002, teams spent much less time on establishing the team than was spent in 2001. During the second week, all teams demonstrated problem identification and generating interventions. During week

three, several teams demonstrated planning implementation of interventions. Two teams were still engaged in planning the implementation of interventions toward the end of Summer 2002 session because evaluation of their intervention led to the conclusion that the intervention was not effective to solve the learning problem, resulting in revision and redesign. During week four, stages 2, 3, and 4 were demonstrated by most of the teams. During week five, all but one team demonstrated evaluation of the intervention. Therefore it was concluded that all teams demonstrated progress through the five-stage consultation process.

For Summer 2001, Individual Summary Evaluation of Team Work ratings revealed that the range of performance was 19 to 25 on the 25-point checklist with one outlier earning a rating of 13. This student missed two of the five team meetings, thus she lacked the opportunity to demonstrate the expected skills. This indicates that most team members performed at or above the 80% level. For each characteristic identified, most students received a rating of 4 or 5, which is high on the 5 point Likert-type scale. These results are summarized as follows: Prepared Contributions 20/22 students, Interpersonal communications 18/22 students, Planning 21/22, Collaborative decision making 20/22, Evaluation of effectiveness 14/22 with six receiving a rating of three.

For Summer 2002, Individual Summary Evaluation of Team Work ratings revealed that the range of performance was 19 to 25 on the 25-point checklist, with one outlier earning a rating of 16. This student missed the last team meeting because of confusion about the meeting time. This, however did not affect her rating. Her pattern of refusal to initiate in team and her hesitancy to contribute her findings to the team effort brought her ratings down considerably. This indicates that most team members performed at or above the 80% level. For each characteristic identified, most students received a rating of 4 or 5, which is high on the 5 point Likert-type scale. Results are summarized as follows: Prepared Contributions 19/20 students, Interpersonal communications 19/20 students, Planning 19/22, Collaborative decision making 20/20, Evaluation of effectiveness 15/20 with four receiving a rating of three.

Results on the Individual Summary Team Evaluation form are strikingly similar across the two data sets. For the most part, students came prepared, participated in the team and reflected on the process. Two students did not perform at the level of their peers for very different, individual reasons. One did not attend team meetings on a consistent basis, and the other demonstrated difficulty with assertiveness in team. The lower rating received by these two students confirms the validity of this instrument to discern students not demonstrating teaming skills. The most revealing result of comparing the two sets of data on this instrument was lower ratings in the area of Evaluation of effectiveness.

All students made at least one suggestion for team improvement on the Team Self-evaluation form, and some made several. For summer 2001, the one process improvement suggestion that most team members agreed upon was that more time in team would have made problem-solving flow more smoothly. Most opted for more or longer team meetings. The second theme included suggestions for improved communication, such as having team minutes taken, increasing casual conversation away from meeting times, and establishing clearly agreed upon objectives. For Summer 2002, there was general agreement that members participated actively and were well prepared. They echoed concerns about not having enough meeting and planning time. Some interesting qualitative themes emerged from responses of this cohort to item 4, which asked what they learned from teaming. The most prominent of these were:

1) Assertiveness in team – “Teaming allows perspectives to be shared that otherwise would not be seen. Therefore, information must be shared, so don’t be afraid to speak up;” and (2) “The power of observation as a tool for change;” the meaning of unobtrusive observation, and then the importance of comparing observations among observers. Several students commented about how well teaming really works to make academics and behaviors better, even in the short time afforded by the six weeks of Summer School program. One student expressed surprise at how much academic performance influences behavior.

In comparing Assessment and Learning Theory students’ Team Self-evaluation Summary items 1-5, some patterns emerged. Even though overall, team members participated and were prepared, it was noted that the two Assessment students felt that two of the Learning Theory students were holding back, not contributing what they knew to the team effort, “...didn’t have much to say.” Conversely, the Learning Theory students felt that, by the

time all the assessment information was presented, they did not have adequate time to present behavioral concerns. Thus, they felt less supported by the team in their decision-making. Overall, students felt that in order for teaming to produce effective planning and successful interventions, flexibility and organization are crucial.

Instructor evaluation ratings of unique contributions to the team agreed with team self-evaluations in the areas of participation and preparedness, with the exception of three individual students. Instructor ratings of team efforts differed from team self-evaluations in the area of evaluation of effectiveness for four students.

Discussion

Overall, the students realized that it takes more than one person to effectively manage an instructional environment. All but two students, one in each Summer session, left with a good grasp of team process. For pre-service teachers, the whole experience was an "eye opener" regarding academic skills deficits and behavioral issues. Many were surprised to discover how strategies that were implemented really worked in such a short period of time, and to discover how many strategies, behaviors, and skills could be taught in such a short period of time.

Similar results were obtained for two Summers in a row. Across the three instruments, preparedness and participation were high. Time for teaming and effective communication of children's assessment results and behavior analyses presented difficulty. Summer 2002 team members were able to reflect back on the stages of teaming as evidenced by several comments they made on the Team Self-evaluation Summary stating that it is important to get to know team members and the roles that each must fill. Another area of difficulty expressed was establishing goals. Several students expressed that their teams were hesitant to move in a certain direction. In Summer 2001, one instructor actually had to prompt the team to move from problem identification and description to planning the intervention. During Summer 2002, the other instructor had to prompt a team to keep notes so that they would have a starting point for each new discussion.

Instructor evaluation ratings of unique contributions to the team agreed with team self-evaluations in the areas of participation and preparedness, with the exception of three individual students. Two of these had difficulty with interpersonal communications, and the other had difficulty developing ideas. Instructor ratings of team efforts differed from team self-evaluations in the area of evaluation of effectiveness for four students. This area involves the ability to reflect in action, or think on one's feet, choose and implement alternatives, and celebrate success. One student gave such short answers that there was no evidence to demonstrate reflection. One had also received a lower rating in participation based on her low contribution to team, so there was little basis for reflection. And two simply reiterated team comments without much interpretation.

It may be that this culminating reflective activity is too much all at once at the end of the practicum experience. Perhaps teams would benefit more by integrating reflective tasks into their teaming at the end of each team meeting. Perhaps then, Evaluation of effectiveness could more comprehensively address the three Es, "Effectiveness, Efficacy, and Efficiency."

Implications for Rural Practice

In these simulated team experiences, students demonstrated evidence of moving through the stages of consultative team process. It would follow that, even in a quasi-official learning environment, simulations are worthwhile practice to develop teaming and collaboration skills. Therefore, rural teacher preparation programs do not have to be limited by lack of local resources or rely on resources from a distance. They can create valid experiences in simulated team situations focused on problem solving for children.

Implications for Further Research

Action research is a viable method of inquiry that enhances program evaluation and leads to improved methods of preparing teachers to meet both the standards of expected performance and the needs of individual

children. It is also beneficial for students to see their instructors engage in action research, as this provided a model to guide their development of inquiry.

Several questions that would further verify commonality and validity among instruments remain in process of analysis in relation to this study. One such inquiry is to examine the three instruments regarding the students' use of reflective techniques in relation to evaluating their teams' effectiveness, efficacy, and efficiency. What was the make up of their on-going reflection? What alternatives were discussed? Were they able to identify needs and celebrate their successes?

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TEACHING ONLINE COURSES IN RURAL AREAS: WAYS TO INTERACT

As e-learning is becoming more routine in today's higher education environment, the tools used are beginning to surface in the K-12 academic arena. This especially important to those teaching in rural locales, due to the logistical issues involved in areas such as special education.

Online courses, as well as Internet resources, bring the world into the classroom. Online documents, simulations and virtual tours are just a few examples of the power the Internet has to offer. The information age provides a new discovery, not just for the student, but for the teacher as well. Things about teaching you didn't know, like skills and ideas, that will help you be an even more successful educator.

The student may be the greatest recipient in this climate of teaching and learning. This arena will have its own structure and components. These different components related to developing a virtual classroom (or supplementing a live course) are varied and diverse. All disciplines can use similar strategies for using these tools and resources.

Kinds of Courses

- Online courses: An online course maybe passworded and may (probably) use proprietary software which the learner must have resident on the home computer.
- Web-based courses: Anyone with Internet access and a browser can access the web course.
- Webcentric courses: The web-centric course uses the Internet to access materials e.g., syllabus, readings, and activities. These materials may be provided on the website or they may be linked from other sites.

The Synchronous Collaborative Classroom

Students attend class during schedules sessions when teachers/tutors are available. They use the Internet to find documents, simulations and other forms of information. The talk with others in chat rooms and interact by email with peers and tutors. They may work on whiteboards to share documents or use CU-C-Me to see each other while they interact. They develop products for authentic audiences that may include research reports, teaching summaries, simulations and other materials that will go to a real audience.

The Asynchronous Collaborative Classroom

Students come to computer laboratories or logon from home at different times during the day and night. The teacher or the students to work together on projects for authentic audiences form either collaborative groups. Discussions are

held on threaded databases and collaborative work is posted to bulletin boards where others can make comments on it. In some systems students can work directly on collaborative documents from a variety of locations.

De-schooled Education on the Web

Students use networked computers from a computer lab or from home. They develop research projects and other materials upon which they will not be examined. Students work individually or in groups. They collect information from the web. They may participate in either synchronous or asynchronous discussions. A tutor is available to discuss search strategies, report writing, and evaluation of web content but the tutor is not a content expert. The students post their work to web pages.

Web-Centric Courses

The web-centric course uses the Internet to access materials that may be provided on the website or they may be linked from other sites. Communication between teacher, students, and materials will be electronic for the most part. Instruction in either a synchronous or asynchronous form is generally conducted on the web. Instruction is usually cohort based but may be individualized. There may be gather strategies where students come together for seminars. There may also be synchronous electronic gathers in an asynchronous course for chats/seminars/guest speakers/ or problem discussion.

Ways to Disseminate Information

- Twisted copper
- Websites
- CD-ROM
- DVD
- Streaming audio
- Streaming video
- VCR cassettes
- Audio cassette

CD-ROM or DVD Techniques

- Video Streaming
- Audio Streaming
- Regular video
- Regular Audio
- Text
- Animations
- Mixed media

Discussion at a Distance in Courses

- Synchronous
- Asynchronous
- Threaded database

- Bulletin boards
- Email
- Chat rooms
- Listserv's

Threaded Databases in Courses

Asynchronous Study Threads: Threaded discussion databases provide a way that stimulus material can be presented. The threading feature allows different students to respond to the questions, to the responses to the questions and to the responses to the responses, etc. In this way threads of discussion develop as more students logon and respond to peers and to the teachers original questions.

Ways of Managing Courses and Encouraging Student Interaction

- Bulletin Boards
- Email
- Chat Rooms
- Listserv's
- Platforms which include Threaded Databases
- Blackboard
- WebCT

Explaining Distance Education

Four modules on how to do it.

<http://home.okstate.edu/homepages.nsf/toc/NUDC1000reading1>

<http://home.okstate.edu/homepages.nsf/toc/NUDC1000reading2>

<http://home.okstate.edu/homepages.nsf/toc/NUDC1000reading3>

<http://home.okstate.edu/homepages.nsf/toc/NUDC1000reading4>

Issues for Online Courses

Reducing anxiety about online courses is critical to success. Provide instruction and information so that students embrace rather than fear this new opportunity. Providing ways to reduce bandwidth, a major issue in rural areas, are listed below:

- Compression techniques
- Thumbnail pictures
- Text only options
- No rollovers
- Fewer visuals

Broadband versus Dialup Internet Access

ISPs may need long distance. Broadband may come in the form of DSL, Cable, DirectTV, other Satellite options. Write all your content, then get online and paste it in (when using dialup accounts). Take content on a disc to somewhere else for upload. Have a web-based email account, which you can access from anywhere and use it when you are at the library.

Inservice Possibilities

Short courses, Extension courses, Regular online course and Video course are distinct possibilities. Continuing education units encourage participation.

Using Existing Online Materials

For a tutorial on searching see:
<http://home.okstate.edu/homepages.nsf/toc/searchinternet>

Keeping Teachers In Rural Areas

Providing additional incentives for teachers to pursue additional degrees will encourage faculty to invest in your community. The use online networked courses, developing an online community, hiring locals when possible. Looking for non-traditional learners as possible teachers, remembering education is a social process. Collaborative and interactional is just the beginning. Involving peers and teachers using the many-to-many approach spoken to by Paulsen. Communities of practice, social interaction, collective action and shared experiences provide a wealth of resources to the special educator.

Developing this community is to encourage solidarity, an emotional commitment to the provide a discourse community. High solidarity means the group trusts the discourse and discourse is as important in special education as in any other academic effort. Common public goals for SPED teachers, employing mechanisms for intercommunication is critical. Participatory mechanisms provide feedback. Opportunity for sustained professional growth where knowledge is shared and peers collaborate.

Synchronous Formats:

- Tend to replicate traditional classrooms, therefore can be collaborative.
- Teachers talk and students listen.
- Since Gutenberg, edited material is better than extemporaneous teacher talk.
- In interaction the fast talkers/typers get to play, others do not.
- Adds a layer of technology which is expensive without improving instruction.

Asynchronous Formats

- Forces interactivity
- Allows reflective thinkers time to think
- Allows international students opportunity to spell and grammar check
- Controls for cultural differences in responding
- Increases diversity in interaction
- Increases response length and increases response depth
- Increases critical thinking

- Increases collaborative interaction
- Potentially increases creativity
- Allows students to share personal examples

Nuts, Bolts, etc.

Streaming media, non-linear PowerPoint and Threaded Discussion are a few of the most useful tools to interact with special needs students. The Internet is an excellent platform for access to these tools. The interactive nature of the above mentioned opportunities dictates face to face or online access for extensive demonstration.

Multi-level scaffolding is an even more powerful way of using these tools. This allows the student to seek deeper incite into more complex concepts. As students perceive a need, the intuitive nature of the design permits the child to access information not previously available in unilateral scaffolding or non-linear designs.

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<http://home.okstate.edu/homepages.nsf/toc/NUDC1000reading1>
<http://home.okstate.edu/homepages.nsf/toc/NUDC1000reading2>
<http://home.okstate.edu/homepages.nsf/toc/NUDC1000reading3>
<http://home.okstate.edu/homepages.nsf/toc/NUDC1000reading4>

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LIVE BROADCASTING ONLINE: INTERACTIVE TRAINING FOR RURAL SPECIAL EDUCATORS

Abstract

This paper describes how to use a desktop computer and inexpensive software plus a PC or Macintosh streaming server to deliver live interactive class sessions via video with audio streaming on the Internet. Although the use of Web-based instruction for preservice and inservice program delivery in special education and disability services is expanding rapidly, most existing programs rely primarily on text presentation and asynchronous (delayed time) technologies such as threaded discussions. Relatively little use has been made to date of the Web's multimedia capabilities or synchronous (real time) technologies such as audio- or videoconferencing. The use of webcasting technology (both simulcasts in real time and re-broadcasts on demand) represents a fairly inexpensive, simple to use mechanism for delivering personnel preparation programs for practitioners working in early intervention, special education, or adult disability services in rural areas without the need for high bandwidth connections. The distance education program in Severe/Multiple Disabilities and Early Intervention Special Education at West Virginia University has successfully utilized webcasting technology to deliver a graduate certification and degree program to practicing but uncertified special educators working in rural areas of the United States as well as in several other locations around the world.

Objectives

The paper will accomplish five (5) objectives:

1. to describe the application of live and archived webcasting technology to personnel preparation programs for rural special educators;
2. to illustrate hardware and software needed to create, deliver, and receive webcasts;
3. to present initial evaluation data on participant performance and perceptions;
4. to discuss the pros and cons of using webcasting for preservice and inservice training and
5. to disseminate information about resources helpful in planning for webcasting.

The procedures and outcomes described in this project may be useful for college and university faculty and/or state and local school personnel who are currently using or may be considering web-based training options in rural areas.

Introduction to the Webcasting Project

Effective and efficient personnel preparation programs at the preservice and inservice level are essential in insuring a free appropriate public education for all children, but especially in rural areas, where staff recruitment, retention, and development are critical issues. Emerging technologies offer promising solutions to the challenges colleges and universities as well as state and local education agencies face in providing accessible and appropriate training to rural special educators. The webcasting technology described in this session is an innovative approach to helping special education personnel acquire knowledge and skills needed to deliver best practices in rural schools and to acquiring full credentials for licensure/certification in special education or disability services.

Background of the Webcasting Project

Technology-mediated distance education is rapidly becoming widely used for personnel preparation in special education at both the preservice and inservice levels. Today's telecommunications technologies allow quality programs to be delivered to many individuals effectively and efficiently without the barriers of time and space (Howard et al., 1992). A number of universities are now using distance education to address critical personnel shortages, especially in low incidence disabilities and in rural areas (Ludlow, 1998). Although web-based instruction is just now being explored for its distance education potential, it has many promising applications in teacher education in special education. Web-based instruction is especially appropriate for on-the-job training of practitioners because it allows learners to work at home or school to process materials at their own pace, to interact with the instructor and other practitioners as needed, and to receive individually designed feedback as they apply information to real world settings (Kelker et al. 1992; Kendal, 1992). Recent availability of streaming media and higher bandwidth connections now permit the delivery of live interactive sessions on the Internet in real time. Teacher education programs can harness the potential of this exciting new technology to develop more accessible, lower cost distance education programs.

Description of the Webcasting Project

West Virginia University (WVU) has offered a distance education program at the graduate level leading to teaching certification and a Master's degree in either Severe/Multiple Disabilities or Early Intervention/Early Childhood Special Education since 1990. All courses in these programs have been offered via unencrypted C-band satellite transmission to individuals attending at colleges, schools, public libraries, and other public sites throughout West Virginia and the surrounding Appalachian region. However, frequent requests by individuals living in more remote rural areas in this region, in other parts of the country without satellite access, or in international locations outside the satellite footprint (signal distribution area) prompted the program coordinator to consider how the program could accommodate these prospective students and expand its service area. In response to this demand, the program has begun to utilize webcasting technology since 2001 to transmit class sessions over the Internet to individuals without satellite access, by means of both web simulcasts and re-broadcasts.

Web simulcasts. Web simulcasts are live class sessions streamed over the Internet at the same time as satellite broadcasts. They are delivered to students who live outside the state borders of West Virginia, primarily in other areas of the United States that do not have satellite access. These students view each simulcast on a desktop computer at their home or workplace during the class session hours from 5:00 to 7:00 p.m. one night per week throughout the academic semester. They interact with the instructor and other students in the course by calling a toll-free telephone number to access the course audio conference bridging system. Both instructor and simulcast student must make allowances for a 10 to 30 second delay between the time a question is asked or a problem is posed on air and the time the distant student is able to respond to it. If the student uses a phone modem to access the Web, s/he must use a second phone line or a cellular phone to make calls during class time.

Web re-broadcasts. Web re-broadcasts are archived class sessions streamed over the Internet after each live class session that can be accessed on demand at any time. They are delivered to students who live outside continental North America where time zone differences do not permit viewing of simulcasts. They are also available to all students in the course (including those who participate by satellite transmission or simulcasts) as a mechanism for reviewing course content or as a means of making up class sessions missed due to technical problems or personal reasons. These students view each re-broadcast on a desktop computer at their home or workplace but obviously they cannot interact in real time with the instructor or other students during the live class session. To simulate live interactions with international students, the instructor provides them with discussion questions and class activities one week prior to each scheduled class session and invites them to send written comments which s/he then reads during the live class session. These students also have other opportunities to interact with their classmates through a variety of structured and unstructured online activities during the course.

Developing and Delivering Webcasts

The hardware and software needed to implement webcasting technology is readily available, simple to install and operate, and low in cost for instructor and learner. The WVU Program has used two (2) different systems

to deliver webcasts, one primarily a Macintosh computer-based system and the other a Wintel computer-based system. Each of these systems is described below along with cost estimates for setting them up.

1. QuickTime streaming format

Apple's QuickTime streaming format is the easiest system to use for webcasting, especially for those with relatively little technology expertise. The QuickTime tools are the least expensive and most user friendly for audio and video streaming, whether in real or delayed time mode (Sauer, 2001). QuickTime also has the dual advantages of cross-platform compatibility and high quality images with "skip protection" technology (Waggoner, 2001). QuickTime streaming was used for webcasts during the first year of the project, and the instructor and media producer worked with students to identify and solve problems and fine-tune the system. They concluded that Apple's QuickTime streaming provided high quality video but only a single stream of 56Kbps, which was too fast for some phone modems and too slow for high speed connections. In general, the QuickTime webcasts offered excellent results with cable modem or fiber line internet connections, but only fair results with 56K telephone modem access; the international sites were able to get good audio signal but no video signal.

The program coordinator purchased all hardware and software using internal grant funds in the summer preceding the first academic year of the project. The media producer set up an Apple OSX streaming server in a departmental office and obtained a static Internet Protocol (IP) address and a dedicated access line from university administration. He also installed Sorenson Broadcaster software on an Apple Powerbook 5300 (laptop selected for easy transport to and from the broadcast studio during classes) to create the live streams and a copy of Quicktime 4.0 Pro to convert the archived files to a Web-friendly format. Finally, he created a special icon and page within the WebCT course management system software where students could select individual links for the live and archived streams. The program coordinator wrote an extensive set of directions illustrated with screen shots to assist students in preparing their computers for webcasts; these directions were added to the WebCT course system as an HTML page with links to other Web sites.

At the broadcast studio, the production switcher was connected to the Powerbook with a cable and to another desktop computer within the studio so that the producer could monitor the live streams. The Broadcaster software was used to convert the output from the studio switcher on the fly into a Quicktime audio and video stream using the Real Time Streaming Protocol (RTSP). A single stream was sent to the program server at another location where students could access the class session via a link within the university's WebCT course management software. During the class session, the instructor monitored the simulcast with a desktop computer. After each broadcast, QuickTime Pro software was used to prepare the archived files (by means of "hinting") for delivery on demand. These archived files were then uploaded to the program server so that students could access the re-broadcasts on demand at any time throughout the course.

In this system, the instructor requires the following equipment:

- *Apple OSX streaming server equipped with a 733 MHz processor and 256 MB RAM and a 1 GB drive with a 50 stream license with no server tax (cost about \$5000)

- *Apple Macintosh G3 Powerbook 5300 with 400 MHz processor speed and 250 MB RAM to house the encoder software and facilitate transport to any site from which the class will be transmitted (for example, a broadcast studio, the instructor's office, etc.). (cost about \$3000)

- *Sorenson Broadcaster streaming software to digitize the audio and video signal at a single data rate on the fly from the camera in real time (cost about \$300)

- *XLR8 Interview external USB video capture device to convert the broadcast signal to digital video signal prior to encoding (cost about \$300)

- *Apple QuickTime Pro software (cost about \$30)

TOTAL INSTRUCTOR COST FOR QT STREAMING: approximately \$8630

This system requires students to have the following equipment:

*desktop computer of either platform with at least 300 MHz processor and 64 MB RAM and with audio and video cards (cost varies because newer computers come equipped with such features while older computers may need to have special cards installed – since students must have computers to access other Web components of the course, this generally requires no additional costs to them)

*free copy of Apple QuickTime Player 4.0 downloaded to their computer's desktop and installed in their browser's plug-ins folder to view the webcasts (no cost)

TOTAL STUDENT COST FOR QT STREAMING: none

2. RealMedia Streaming Format

RealNetwork's Real Media streaming format is another streaming system that is not too difficult or costly to use for webcasting and is better suited to the varying nature of bandwidth currently available to end users on the Internet. RealMedia streaming has the advantage of producing several streams at different access rates or using patented Surestream technology to offer a single stream that automatically adjusts to the user's access rate (Waggoner, 2001). For this reason, the RealMedia tools are more expensive but offer greater flexibility (Sauer, 2001). In order to insure greater access to the webcasts, the program coordinator and media producer investigated other options for transmitting live and archived video streams, deciding to use RealMedia streaming for webcasts during all subsequent years of the project. They concluded that RealMedia streaming provides lower quality video but the Surestream technology allows the stream to be adjusted to the user's Internet access, making the webcasts more accessible via telephone modems and lower bandwidth connections. The Real Media webcasts offered excellent results with cable modem or fiber line internet connections, and good results with 56K telephone modem access; the international sites were able to get good audio signal and fair video signal.

The program coordinator and media producer collaborated with technical personnel at the West Virginia Education Network (EDNET) in Institute, West Virginia to transmit live webcasts and record archived webcasts for the remaining courses in the project. EDNET personnel set up a rack-mounted Athlon ATX computer to run the encoder software. They purchased an annual 100 stream Real Producer Pro license from RealNetworks to encode the streams on the fly from the live satellite broadcasts and installed an internal PCI video capture card to convert the analog signal sent from the WVU broadcast studio to digital signal. They used a Microsoft Windows NT 4.0 server to store and serve the live and archived video streams.

In this system, the instructor requires the following equipment:

*Microsoft Windows NT server equipped with a 700 MHz dual processor and 86 MB RAM plus a 10 GB drive (cost about \$3500)

*RealNetworks RealProducer Pro streaming software to encode simulcasts and re-broadcasts with a 100 stream license (cost about \$2000)

*Athlon ATX computer with 500 MHz processor and 64 MB RAM to house the encoder software (cost about \$1000)

*Microsoft Windows 2000 Pro server software (cost about \$1000)

ViewCast Osprey 100 internal PCI video capture card to convert the broadcast signal to digital video signal prior to encoding (cost about \$200)

Additional equipment needed if no broadcast facility is available:

TOTAL INSTRUCTOR COST FOR RM STREAMING: approximately \$7700

This system requires students to have the following equipment:

*desktop computer of either platform with at least 300 MHz processor and 64 MB RAM and with audio and video cards (cost varies because newer computers come equipped with such features while older computers may need to have special cards installed – since students must have computers to access other Web components of the course, this generally requires no additional costs to them)

*free copy of RealNetworks RealMedia Player 8.0 Basic downloaded to their computer's desktop and installed in their browser's plug-ins folder to view the webcasts
(no cost)

TOTAL STUDENT COST FOR RM STREAMING: none

NOTE: In the WVU program, class sessions are broadcast for satellite transmission from either a television studio or an electronic classroom, so the audio and video signal was taken directly from the studio's switcher and cabled into the laptop computer for conversion to the streaming format. However, several trials were also successfully conducted in which the simulcast was streamed directly from the instructor's office using a digital camera and wireless microphone.

Additional equipment needed if no broadcast facility is available:

*Sony DVX1000 digital camera to record video signal when not in a television production facility (cost about \$3000)

*Sony ECM44BC omni-directional lavalier microphone to record audio signal from instructor to the camera(cost about \$200)

*Bogen 3001 BN video tripod with fluid head (cost about \$150)

ADDITIONAL COST IF NO STUDIO ACCESS (EITHER SYSTEM): \$3350

Implications of the Webcasting Project

The WVU Webcasting Project represents an innovative model of Web-based training that has been developed, implemented, and evaluated with practicing special educators and related services specialists in rural areas, both locally and globally. The availability of web simulcasts has enabled students living in states other than West Virginia to participate in the certification and degree program; to date, 10 students have enrolled in courses from states such as California, Colorado, Florida, Indiana, New Jersey, New York, North Carolina, and Virginia. The first student to have completed the program via the simulcast model will graduate in Spring 2003. The simulcasts are also used frequently by students in West Virginia when they cannot access the satellite broadcasts due to technical problems at their site or if they must be absent due to illness or bad weather. The availability of re-broadcasts has allowed six (6) individuals living in international areas to join the program; four students have enrolled from Saipan, an island in the South Pacific, one has enrolled from Iceland, and another from Japan. The first international student to complete the program via re-broadcasts graduated in Spring 2002 and two more will finish in Spring 2003. The re-broadcasts are also used often by all students to review content or activities from the broadcast/webcast sessions as needed throughout the course. Beginning with the Spring 2002 semester, program staff no longer make videotape copies of class sessions for students who miss class because they can access the webcasts online more quickly and with less effort. The program coordinator has made the decision to stay with the

Real Media video streaming for the time being, because it is more easily accessed by a wider range of equipment, even though the overall quality of the video image is not as good as the Quicktime streaming.

Webcasting is now a permanent component of the distance education program in Severe/Multiple Disabilities at WVU and it may also be appropriate for other personnel preparation programs in rural areas. The advantages of webcasting include enhanced access to training programs in even the most remote rural areas; reduction in the cost and effort associated with duplicating videotapes copies of class sessions; and provision of opportunity for national and even international outreach. The disadvantages of webcasting are the lower quality of the video image online compared with high quality images via satellite; the bandwidth limitations in some areas of the country or the world; and the continuing technical difficulties with the streaming server and the users' computers. Nevertheless, webcasting represents a viable option for delivering instruction in real and/or delayed time as well as an acceptable balance between program quality and accessibility.

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Resources for More Information about Webcasting

Apple products are available from <http://www.apple.com>
Sorenson Broadcaster is available from <http://www.sorenson.com>
XLR8 products are available from <http://www.xlr8.com>
Microsoft products are available from <http://www.microsoft.com>
Real Networks products are available from <http://www.real.com>
Athlon products are available from <http://amd.com>
Viewcast products are available from <http://viewcast.com>
Sony products are available from <http://www.sony.com>
Bogen products are available from <http://www.bogen.com>
Discount prices on media products are available from <http://bhphoto.com>

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Digital Video, a magazine available at no cost from <http://www.dv.com>

AV Multimedia Producer, a magazine available at no cost from <http://www.avvideo.com>

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***BECOMING A SPECIAL EDUCATION TEACHER ONLINE:
CANDIDATES' PERCEPTIONS***

Given the critical shortage of well-qualified special education teachers throughout the country, the use of distance education technologies to prepare educators, particularly those in rural and remote regions, have been well-documented (Ludlow & Brannan, 1999). Schools and colleges of education have begun to explore the use of the Internet in the preparation of teachers. Online enhanced or full online courses and programs can be found in an ever-increasing number of institutions of higher education (The Sloan Consortium, 2002). As a result, many teacher candidates are choosing to complete part or all of their preparation programs online. For special education teacher candidates in rural communities opportunities to acquire needed credentials in an online learning environment significantly addresses issues of access (Ludlow & Brannan, 1999; Smith, Smith & Boone, 2000). The purpose of this paper is to (1) describe the online credential program in special education offered at National University and (2) discuss the results of an online survey designed to assess students' perceptions of their learning experiences in relation to developing teaching competencies.

National University's administrative headquarters is located in San Diego, but it offers credential programs in special education throughout the state of California through a unique distributed education model. National University Learning Centers are located throughout the state from Sacramento and Redding in the north, Bakersfield and Fresno in the central inland regions, to urban Los Angeles and San Diego. Students attend classes at the closest learning center and/or complete classes online. Many students choose to attend National University because of its unique one-month course format (both on ground and online) along with its focus on adult, nontraditional learners. Since all programs are offered in an online format as well, rural students have ready access to a credential program. Additionally, National University identifies and prepares a large cadre of adjunct faculty from local school districts. Therefore, rural student teachers are able to complete field and practicum courses under the supervision of local master teachers serving as adjunct faculty for National University.

In order to complete the Preliminary Level I Education Specialist Credential (with authorization to teach English learners as required in California) in either Mild/Moderate Disabilities or Moderate/Severe Disabilities students complete 20 courses or a total of 75-quarter units. All courses, except for the assessment course, field experiences, and student teaching, are offered in an online learning format. The online software platform currently used by National University is e-College of Denver, Colorado. Technical support for the courses is provided by both National University and e-College.

There are over 1900 students working on a credential in special education at National University. During the 2002 academic year, 600 students completed at least a portion of their credential program online (J. Swenk, personal communication, December 16, 2002). This represents 31% of the current students completing programs across the state. The online program in special education has been in operation for over 3 academic years, and is growing rapidly. Program developers as well as others in teacher preparation programs have many questions related to the success of preparing teachers using the Internet (Barkley, S.G, 2001; Ludlow, et al., 2002; Smith, Smith, & Boone, 2000). Evaluation of courses offered both on ground and online is ongoing, but an overall examination of the effectiveness of learning to teach online has just recently been undertaken. Questions explored in this evaluation include:

- 1) Who are the online students?
- 2) Why are they completing a teacher preparation program online?

- 3) What is their experience and how does it compare to their other learning experiences at National University?
- 4) What are students' perceptions of the effectiveness of their preparation in relation to teaching competencies?

Additional questions to be answered in future phases of this evaluation include:

- 5) How do online students compare to the on campus students on standard measures?
- 6) How do their learning experiences online prepare them for their current and future teaching experiences in the field?
- 7) How do faculty, supervisors and employers assess students' work in class and on the job?

The first four questions were addressed through an online survey completed in November of 2002. Future study activities include; telephone interviews of a random sampling of online students across the state; a comparison of standardized measures of students completing at least 50% of the credential program online (Core Exam, Exit Exam state Reading test); survey and interviews with course instructors, student teaching supervisors, and school district employers; and finally, in depth case studies of selected students who have completed more than 75% of their program online.

This paper provides a summary of the data collected during November 2002 from an online survey e-mailed to all current special education credential students at National University who have completed at least one course online. Demographic data and students' responses provide insight into why students complete courses online, how they view the effectiveness online course elements and their perceptions of their preparation to teach students with disabilities.

Demographics

Six hundred special education students at National University have taken at least one online course during the 2002 academic year. This represented 31% of special education students completing a credential program. Of the 600 online students receiving the survey 232 responded, which represents a response rate of 38%. Over thirty-eight percent of the students responding were in the 26-35 age range. Sixty-seven percent of the respondents were women and 23% were individuals from diverse ethnic backgrounds. Teaching assignment levels were evenly split between secondary (9-12) and elementary (K-6). Over 85% of the respondents were teaching on emergency credentials and 70% of those were working with students with Mild/Moderate disabilities. Over 33% of the respondents indicated that "Convenient schedule" was their number one reason for completing courses online. Another 25% reported that family or work responsibilities were their number one reason for taking courses online. Eight percent of respondents indicated that distance and travel time were also reasons for taking classes online.

Student Perceptions

Online learning. Students were asked to rate the effectiveness of several elements of online learning on a scale of 1 (not effective) to 4 (very effective). Respondents viewed online assignments, use of websites, email to instructor, instructor feedback and technical support as effective or very effective. Live "chats" were viewed by respondents as the least effective online tool.

Students were asked to compare online learning with courses they have taken at National University onsite/on-ground. A rating of (1) indicated that on-ground was more effective, a rating of (2) suggested they were the same on the designated elements, and a rating of (3) indicated that online was more effective. When comparing online learning to other courses completed at National University, students perceived the experiences as "the same" except for student to student interactions which were seen as somewhat less effective than "on ground" classes and "overall flexibility" which was viewed as more effective in an online format. And finally, when asked to rate the overall effectiveness of the online learning experience over 70% of the respondents felt that the courses were effective or very effective.

Preparation to teach. Students were asked to identify their perceptions of how well prepared they were to perform functions related to the California teaching standards. Respondents evaluated their learning experiences in relation to 11 competency statements. Over 70% of the respondents reported they were able to apply the skills and knowledge acquired in the program in their current teaching setting. Students believed they were less prepared to utilize assessment data to guide instruction and to develop Individual Student Programs (IEPs) that maximized access to the general education curriculum.

Conclusion

These data represented an initial attempt to examine the experience of becoming a special education teacher in an online learning format. Open-ended qualitative responses are currently being analyzed and will provide program directors with specific suggestions for improving the program as well as help to triangulate data reported above. Course evaluation data will be added to the overall picture as well.

At this point, it appears that survey respondents completed online courses because of the convenience of this learning format. They appreciated the flexibility of the courses, access to the instructors and technical support. Respondents viewed the student-to-student interactions online as less effective than in a classroom. Over 70% of the students responding to the survey thought that learning online was an effective or very effective experience. And over 70% of the respondents believed they were adequately or very well prepared to teach students with disabilities.

During the spring and fall of 2003 in-depth interviews of students, instructors, field supervisors and employers will be conducted to add to the initial information gathered through the online survey of students. Beginning in the fall of 2003, case studies will be developed to explore students' experiences online and their application of skills acquired in the program. As this study evolves, the authors hope to elaborate on the experiences of learning online as it contributes towards the preparation of special education teachers.

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INTEGRATING WEB CONFERENCING AND FIELD WORK FOR PREPARING RURAL SPECIAL EDUCATORS

Web-based conferencing and various distance education approaches are increasingly being used to offer teacher education coursework to mid-career changers and limited license teachers in special education. In many states, these new educators tend to be located in rural school community settings, often quite distant from a university setting and rather removed from other teachers in similar circumstances. A key to making their university course work relevant to their day-to-day teaching experiences is to concentrate on a more integrated approach utilizing web-based conferencing connections to both the university instructors and their school-based course colleagues.

Distance learning can be an especially useful approach for preparing teachers who are mid-career changers or who are working on limited licenses, especially in rural geographic areas (Knapczyk, Chapman, Kelly, & Lu, 2002). An important factor in fostering professional outcomes in these prospective teachers is the interaction and collaboration that takes place on the concepts, activities and field experiences covered in their preparation (Kemper, 1995; Koehler & Baxter, 1997; Sands, Kozelski & French, 2000). Our research is showing that collaboration is a key element in distance learning where students often feel isolated because they do not have the same opportunities for peer interaction that are available in campus-based courses (e.g., Rodes, Knapczyk, Chapman & Chung, 2000). Integrating web conferencing activities and field work experiences with other program components offers a powerful approach for structuring collaborative activities.

An important challenge for teacher educators is learning how to integrate various program components (e.g., web conferencing tools, course presentations, assignments, field work) to effectively achieve professional outcomes and standards. In addition, the professional outcomes should be directly linked to national teacher standards in special education. The rest of this paper will provide a structure for the following: a) an overview of the Indiana University Collaborative Teacher Education Program (CTEP) and our distance education delivery system for special education preparation; b) a description of the web conferencing tools we utilize; c) an explanation of the course components of content/readings, activities/practice exercises, and field work applications and how web conferencing works to integrate these together in the program; and finally d) our research activities in this area of web conferencing integration in teacher preparation.

Collaborative Teacher Education Program (CTEP)

The Indiana University program for special education teacher preparation began an off-campus instructional component in 1987. Over the past 16 years, the Collaborative Teacher Education Program (CTEP) has been funded by various federal, state, and local grants. It has become a major part of the special educator preparation program for Indiana University, and thus is always a funded program at the university level, even if no grants are in place. The Collaborative Teacher Education Program currently works with in-service educators in both rural and urban communities throughout the state of Indiana. This program makes certification in mild (high incidence) disabilities accessible to limited license teachers and mid-career changers.

At present, CTEP is a joint program across five Indiana University campuses, spanning the entire geographic distance in Indiana, from the far northwest corner near Chicago, to the southern Indiana main campus in Bloomington and from near the Illinois border on the west to the Ohio border on the east. Over 125 students are enrolled in the certification only or master's degree program. Using multiple distance education technologies,

36 credit hours of coursework are offered in CTEP. The hallmarks of this distance education program are: a) it provides a performance-based structure within each course; b) it links all coursework to field applications; and c) it addresses several state and national teacher standards in each course.

Web Conferencing Tools

Although various distance education technologies are used in the delivery of courses within CTEP, web conferencing has become one of the most prevalent and most useful tools for both students and instructors in the program. All students must have internet access, and typically use home computers, classroom or school-based computers, or public access computers, such as a public library. Currently, the program uses Sitescape Forum for all web conferencing functions and activities related to coursework. Sitescape provides three basic environments for users: 1) Front Page -- where every registered user first logs in and has access to total group asynchronous chat rooms, resource lists, practice forums and helps/hints on use of the forum, and access to separate team environments; 2) Forums -- a total class environment where information may be presented and asynchronous class discussions are held addressing key concepts and issues; and 3) Teams -- a small group environment where groups of 3-4 students work on designated tasks, problem-solve and plan, and carry on synchronous chat capabilities. Instructors have access to all three environments and can monitor student use, work, questions, and comments, in addition to providing timely student or group feedback.

Course Components

We have conceptualized the web-based portions of each course as containing the following components: a) course content and readings; b) activities and practice exercises; and c) projects and field work applications. Each of these components will be explained, including the overall goal, the student roles taken, and what typically happens in student postings during this component.

The goal of the course content and readings section of using Sitescape is to facilitate student learning of the key concepts and methods through engagement in large group discussions of course material. The Sitescape Forum is structured for groups of 15-20 students who read the text and any additional posted content. Each week, students take on the role of one of the following: 1) a Starter (the person who summarizes readings and develops questions to which other participants in the group respond); 2) Participants (persons who answer the Starter's questions, elaborate on issues/concerns, develop discussion threads, and give individual reflections to the material and other discussants); and 3) a Wrapper (the person who summarizes the whole group discussion and highlights key issues raised during the week's discussion).

Each instructor oversees and facilitates the class discussion as needed. The number and type of postings and replies expected for each discussion are explicated in the directions. What typically happens in student postings follows a similar pattern throughout the length of a semester course. First, an instructor Starter model begins the first week of discussion where a quality summary of the reading material is provided, along with clarifications of concepts and questions for each participant to answer. As the weeks continue, students tend to provide their own models of quality Starter material, often direct their discussion toward personal interests and concerns within the topic realm, present many diverse perspectives and viewpoints, provide real life examples and problems from their own teaching -- taking theory into practice issues, and openly share resources, such as websites, teacher guides, student materials, and in-service opportunities.

In the activities/practice exercises portion of web conferencing, the goal is to broaden student understanding of concepts and methods by providing, reviewing and analyzing exemplars. Sitescape teams of 3-5 students make individual postings that include examples of concepts and methods, teaching applications, copies of assignments, sample materials, and case study reviews. Each team member is expected to review and reply to teammates' postings with suggestions or critiques. Often, individual posts will integrate teammates' replies into a final product for the week.

Students on these small teams will engage in a wide variety of behaviors during the course of each week. Below is a listing of typical responses:

- a. brainstorm teaching approaches;
- b. collaborate on problem-solving related case studies;
- c. share personal examples of methods;
- d. present new ideas and expand on views of teammates;
- e. offer suggestions and alternatives; and
- f. provide a community of support and encouragement.

The final component of our web conferencing is the field work applications. The goal is for students to learn to use teaching practices that integrate and apply concepts and methods within each particular course into real life situations. This component also uses the small SITEScape teams of 3-5 members. Typical examples of projects that compose this field work component of our web-based conferencing include: 1) each student conducts a curriculum-based assessment on an individual student and uses the results to prepare an Individualized Education Plan (IEP); 2) student small groups develop a thematic unit that integrates content area teaching and that reflects an understanding of differentiated instruction and issues of diversity; and 3) each student designs an approach for integrating social skills instruction in school-wide programs and activities. All of these projects include team member feedback and critique as a part of the final product.

The instructors provide a structure for each project that includes a general description, specific clarification of components and a grading rubric. Each field-based project requires a clear integration of course concepts that are explicitly and directly tied to the real life classroom or school applications of exemplary practices. In addition, each project clearly reflects state licensing standards for mild intervention and the sub-topic areas included within each of the courses.

Students' typical postings within this component related to field work applications will model the following:

- a. team planning of activities;
- b. on-line chats that review or discuss projects;
- c. plans and drafts of lessons or materials;
- d. implementation strategies and results sharing;
- e. explanations and reflections explanations; and
- f. teammate reviews and critiques.

Research Activities

Earlier studies of our work in distance education technologies centered on the importance of student perceptions of collaborative work on-line with their colleagues and student peers (Rodes, Knapczyk, Chapman, & Chung, 2000). Our most recent investigations have been to assess the use of web conferencing in promoting knowledge construction among student participants. Currently, we are completing data analysis on a totally web-based course in mild disability intervention methods across the general education curriculum. Using phases of knowledge construction, we are determining if and in what on-line circumstances students:

- a. share/compare information;
- b. review/explore ideas;
- c. negotiate/co-construct knowledge;
- d. test and synthesize ideas; and
- e. reach agreement and discuss application of concepts.

Other research activities related to web conferencing that we are engaged in with our CTEP students includes evaluating features of on-line discussions, e.g., chats, instructor roles and determining what each facet adds to a course. We hope to delineate key qualities of each feature and how that enhances (or distracts) from student learning and colleague collaboration on-line. Finally, we are exploring alternative ways of delivering on-line

courses and structuring learner-centered approaches to conferencing, e.g., large group vs. team-based conferencing vs. individual performance.

The approach of integrating web conferencing with program and course components has proven useful as “a survival tool” for our rural special educators, especially those mid-career changers or limited license teachers. When distance education is the main delivery system for continuing coursework, finding ways to actively collaborate with teaching peers in all aspects of the course is a positive connection for students. Web conferencing options are especially useful and “user friendly” with applied activities and field work as students who are geographically separated seek ways to connect with and learn from other special educators. We continue to study the positive aspects of various on-line structures and formats, while continually getting student feedback on preferences and actual level of knowledge construction, both individually and in groups. It is through this work that we can continue to offer our students technology options that meet their comfort and learning needs.

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THE EFFECTS OF HIGH AND LOW INTERACTION IN THREADED DISCUSSION ON STUDENT QUIZ PERFORMANCE IN AN ONLINE UNIVERSITY CLASS

Introduction

Instruction in distance education should be evaluated as it continues to change the way teaching and learning are conducted in university settings (Malone et al., 1997). One facet of distance education that needs further evaluation is online learning.

Moore (1989) defined learner-instructor (or student-teacher) interaction as interaction between a learner and an expert who has prepared the subject matter. He suggests that learners gain more clarification and content knowledge by interacting with a teacher or peer rather than simply reading the course content. Additionally, researchers suggest that interaction in distance education courses produces more student learning and higher class ratings than classes with little or no interaction (Hein & Stalcup, 2001; Irvine, 2000; Marttunen, 1994; Smith, Smith, & Boone, 2000). However, in online classes some students are isolated and detached with little or no interaction with instructors or other students (Schwartz & White, 2000). Thus, students receive little guided practice or feedback on new content.

Guided practice with feedback is an important component of the learning cycle, especially during presentation of new material. This component helps students assess their existing knowledge and performance as well as provides suggestions on improvement (Schwartz & White, 2000). Threaded discussion is one technology-based method to increase guided practice during initial acquisition of new material.

Threaded discussion is a tool in an online environment that allows a continuous string of comments on a topic (Boaz et al., 1999). It provides opportunities for students to respond to teacher questions, for teachers to give students feedback in a "group" setting, and for students to respond to their peers.

Researchers have examined the use of threaded discussion in university settings (Bonk, Malikowski, & East, 1998; Cifuentes & Hughey, 1998; Hein & Stalcup, 2001; Irvine, 2000; Levin, 1999; Marttunen, 1994; Poole, 2000; Smith, Smith, & Boone, 2000). The body of research is small yet diverse. For example, Hein and Stalcup and Smith et al., measured the effects of threaded discussion on quiz performance, while other researchers studied how the use of threaded discussion effects skills and/or knowledge related to course content (Cifuentes & Hughey; Marttunen). It is not clear, however, if threaded discussions improve student performance. Moreover, it is not clear what requirements are necessary to promote improved performance in online classes.

The purpose of this study was to examine: (a) to what extent high interaction in threaded discussions increases student performance on quizzes in an online Introduction to Special Education course; and (b) to what extent does the addition of performance feedback effect student performance on quizzes regardless of their level of interaction in threaded discussion? A supplemental question was also examined: how do students rank the effectiveness of threaded discussion?

Methods

Participants and Setting

Twelve participants ages 19-26 enrolled in the on-campus version of "Education of Exceptional Learners" at Utah State University participated in the study. None of the participants had previous experience with online courses, or discussion groups. Ten participants were female and two were male. The mean grade-point-average (GPA) on a 4-point-scale was 3.45 with a standard deviation of 0.25. The high GPA was 3.88 and the low GPA was 3.11. All participants were education majors.

Participants accessed the course from the Internet via personal computer. Correspondence between the participants and instructor were conducted face-to-face, via email, and/or phone.

Apparatus/Materials

WebCT was used to deliver the course content. WebCT is a course management system used by more than 2,200 colleges and universities in 79 countries (WebCT.com, 2001). Students log onto the university's WebCT-based course website to access a variety of electronic tools (e.g., test taking, threaded discussion, chat, email, and weblinks) used in web-based courses. WebCT allows instructors to track the number of times a student has logged onto a course website. It also tracks the number of threaded discussions students open and the number of posts students make on a threaded discussion. Security is maintained by requiring that students use a personal password to access their course accounts to view grades, take quizzes, and use threaded discussion.

Dependent Variable and Measurement

The primary dependent variable was the percentage of correct responses on quizzes derived from each threaded discussion. A two-step process was used to develop the quiz questions. First, content from threaded discussion was matched with quiz questions from the quiz bank that accompanies the teacher's edition of the course text. Second, four questions were developed per quiz that aligned to the threaded discussion and current course content.

Measures of social validity were collected on participant rankings of the effectiveness of the threaded discussion procedures and perceptions of the class using a 4-point Likert scale survey with opportunities to give written answers. Participants completed the survey at the end of the study. On the survey participants ranked and wrote comments on whether they liked the class, liked the threaded discussion, and felt they performed better on quizzes in which they were provided feedback or on quizzes in which they were not provided feedback. In addition, participants wrote responses on how they would structure threaded discussions in another class, how they would improve threaded discussions in the study, and what they liked most and least about the class.

Independent Variable

The independent variables were the amount of threaded discussion interaction and performance feedback on quizzes.

Interaction. Interaction included two components: viewing or accessing the threaded discussion and writing a response to a discussion question or a peer's response. Viewing or accessing the threaded discussion was accomplished by: (1) logging onto the course website; (2) "clicking" on the discussion tool; (3) clicking on the topic for the week; and (4) clicking on a post. Writing a response to an interaction was defined as: (1) a student response to a previous message from either the instructor or a peer; (2) at least five words or more in length; and (3) relevant to the message that preceded the response.

During the study students participated in two interaction conditions, "high interaction" and "low interaction." During high interaction participants: (1) accessed at least three postings as evidenced by clicking on a posting; (2)

engaged in three interactions, either answering discussion questions or responding to a peer's post; and (3) took the quiz at the end of the threaded discussion.

During low interaction, participants: (1) accessed at least three postings; (2) made no response to discussion questions or a peer's posting; and (3) took the quiz at the end of the discussion session.

Performance feedback. *Performance feedback on quizzes was provided via participant email. The score was sent to the participant prior to the next threaded discussion.*

Interobserver Agreement

Dependent Measure. Interobserver agreement on quizzes was assessed on 33% of the quizzes. Data were collected by giving two independent observers copies of the participants' quizzes. Each observer scored the quizzes independently using the key provided by the instructor. Each question was scored for agreement between the two independent observers. The agreement percentage was calculated using a point-by-point agreement ratio (Kazdin, 1982). Agreements between observers were divided by the sum of agreements and disagreements and multiplied by 100. Agreement averaged 99.6% with a high of 100% on seven of eight agreement checks and a low of 97% on one check.

Treatment fidelity. During training the independent observers examined a sample threaded discussion transcript and a WebCT student tracking printout. From the threaded discussion transcripts observers recorded if the instructor posted two questions before the threaded discussion and the number of participant postings. From the WebCT student tracking printout observers recorded the number of times each participant clicked on a post. Treatment fidelity was measured on 33% of the discussion sessions. Each requirement was scored for agreement between the two independent observers. The agreement percentage was calculated using a point-by-point agreement ratio (Kazdin, 1982). Agreement between observers was 100%.

Procedures

Participant training. During the first week of the course, participants learned to access the course website and use the threaded discussion tool. Training took place in a face-to-face workshop in an on-campus computer lab to familiarize participants with the threaded discussion tool. Participants also were instructed on the specific requirements of the high interaction and low interaction conditions. Upon completion of the workshop each participant independently logged on to the course website, navigated the content of the course, accessed the threaded discussion tool, used personal email, stated the requirements of high and low threaded discussion interaction, as described above.

No quiz feedback phase. Participants were randomly assigned to alternating treatments of high interaction and low interaction each week. If participants were randomly assigned to the same starting condition for two consecutive weeks then they were automatically placed in the alternative condition the following week. Each participant was sent the type of interaction required for the current session via email the day before the session was implemented. Participants acknowledged receipt of the email restating the requirement. Regardless of the interaction level and quiz performance, participants were awarded class participation points if they met the interaction criteria required for that session. It is important to note that participants received participation points only if they did not post a comment on the threaded discussion while in the low interaction condition.

Quiz feedback phase. Each participant received the same treatment as in the no quiz feedback phase. In addition, participants received feedback on their quizzes through email from the instructor. After opening the instructor's

email, participants acknowledged receipt of feedback prior to the start of the threaded discussion.

Experimental Design

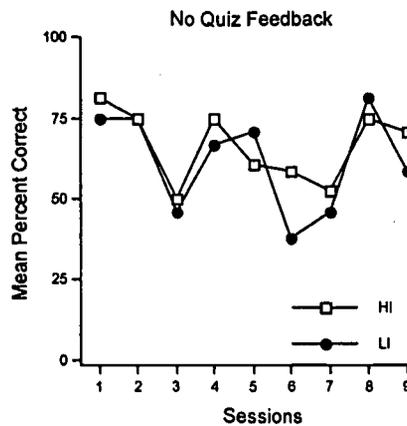
An alternating treatment design counterbalanced across participants was used to assess the effects of high and low threaded discussion. An AB design was used to assess the differential effects of feedback on quizzes (Barlow & Hayes, 1979; Campbell & Stanley, 1963; Gall, Borg, & Gall, 1996).

Results

High Interaction in Threaded Discussion

No Quiz Feedback

The mean quiz score of students in the high interaction condition without feedback was 66% (SD = 9.65, range = 45.8 – 80%); whereas, the mean quiz score of students in the low interaction condition without



feedback was 63% (SD = 10.88, range = 41.7 - 77.8%) (see Figure 1). An effect size (d) of .27 was computed by $M_{\text{high interaction}} - M_{\text{low interaction}} / SD_{\text{low interaction}}$ (Glass & Hopkins, 1996). This indicates that students' mean scores on high interaction were almost 3/10 of a standard deviation above the low interaction condition mean scores.

Figure 1. Mean percent correct on quizzes on high interaction (HI) and low interaction (LI) threaded discussions for no-quiz feedback phase.

Effect of Performance Feedback on

Quiz Performance

High and low interaction with feedback. The mean quiz score of high interaction on threaded discussion with feedback was 71.4% (SD = 10.91%, range = 62.5 - 93.8%) (see Figure 5). The mean quiz score of low interaction on threaded discussion was 67% (SD = 17.40%, range of 41.7-91.7%). An effect size of .25 was computed by $M_{\text{high interaction FB}} - M_{\text{low interaction FB}} / SD_{\text{low interaction FB}}$. This effect size should be interpreted with caution because the data included only four data points in the high interaction condition and three in the low interaction condition.

Comparison of feedback to no feedback. The mean quiz score of threaded discussion with feedback was 69.2% ($SD = 10.58$, range of 48.8 – 81.3%), while the mean quiz score of threaded discussion without feedback was 64.5% ($SD = 6.56$, range of 54.2 - 75%) (see Figure 2 below).

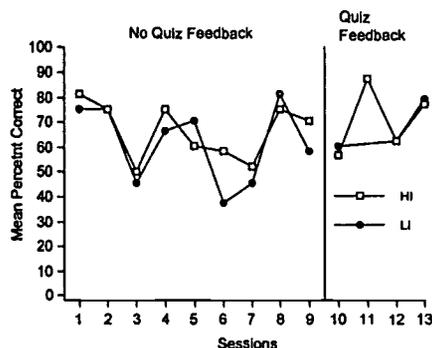


Figure 2. Mean percent correct on quizzes on high interaction (HI) and low interaction (LI) threaded discussions for no-quiz and quiz feedback phases.

The effect size comparing feedback with no feedback phases across both conditions

was .72. Effect size was computed by $M_{\text{Feedback}} - M_{\text{No Feedback}} / SD_{\text{No Feedback}}$. This effect size should be interpreted with caution because the feedback phase included only seven data points, four in the high interaction condition and three in the low interaction condition.

Students' Ranking of Threaded Discussion

Students reported they liked the class, with the exception of Student 2. Generally, all students would recommend taking the class to a friend with the exception of Student 7. All students with the exception of three liked it when they were required to participate in the threaded discussion. Students indicated that their participation depended on the discussion. For example, if they were busy that day they preferred not to participate. Though students reported they liked participating in the threaded discussion, most students also reported that they liked it when they did not have to participate in the threaded discussion with the exception of Student 5. Students indicated there were times they wanted to participate but could not because of the class requirements.

Students also responded to two questions about the high and low interaction conditions. The first question asked if they performed best on quizzes in the high interaction condition. Nine students agreed or strongly agreed they performed best on quizzes in the high interaction condition. Of those nine students, six students' mean quiz scores in the high interaction condition were in fact, higher than their mean quiz scores in the low interaction condition. The next question asked students if they thought they performed best on quizzes in the low interaction condition. Two students agreed or strongly agreed they performed best on quizzes in the low interaction condition. Neither student had higher mean quiz scores in the low interaction condition. Some students wrote comments that their performance depended on the threaded discussion topic, while others reported that reading other students' posts helped their quiz performance.

Five students reported that they agreed or strongly agreed they had better quiz performance when feedback was given on quizzes. Of those five students, three had higher means in the feedback phase. Student 9 commented that feedback might have motivated her because she was not doing well on the quizzes. Seven students reported they disagreed or strongly disagreed they had better quiz performance when quiz performance feedback was given. In contrast, six of the seven had higher quiz score means in the feedback phase.

Students also responded to two questions: (1) I would like to see threaded discussions used in other classes; (2) If you had a choice of two online classes, one that used threaded discussion or one that did not use threaded discussion which one would you take. Eight students indicated they would like to see threaded discussion used in other classes. Ten students indicated they would choose the online class with threaded discussion if given a choice. Generally, students would choose the online class with threaded discussion for two reasons: (1) because threaded discussions are helpful for learning material; and (2) they like sharing and reading others' views. Students would not choose the online class with threaded discussion for two reasons: (1) inconvenience, and (2) they did not like finding the answers and posting it for others.

Summary

Few if any conclusions may be drawn from this study. Upon examination of each student's data there are high levels of variability in each condition. Though the mean score was higher when feedback was applied, the design of the study did not permit replication of the no feedback condition to provide confidence that feedback actually did increase students' overall mean quiz scores. Thus it is not clear if feedback improved overall student scores or if the students simply improved their ability to take tests.

Though the effects are minimal, it would be simplistic to conclude that participation on threaded discussion has no effect on student quiz performance, or that feedback does not increase student quiz performance. There are several variables that should be considered in a systematic replication of this study. First, several student demographic variables were not controlled in this study and may have influenced the outcome. These include studying behaviors, GPA, gender, and location of the student, that is, on-campus or off-campus. Importantly, participants' studying behaviors should be controlled or at least considered. For example, if a student's study habits, such as, outlining the chapters, answering the study questions at the end of the chapters, or highlighting text and reviewing the highlights, are conducive to academic performance, then the effects of feedback may not be evident in the data. Students with higher GPAs typically have better study skills. The participants in this study were volunteers and had GPAs ranging from 3.11 to 3.88. Gall et al. (1996) reported various characteristics found in volunteers. Volunteers tend to be better educated than non-volunteers and tend to be female rather than male. These characteristics are evident when considering the GPAs and gender of the participants in this study. A further demographic variable that should be evaluated is student location. The students in this study were all on-campus students. All students had contact with the instructor at least twice per week when they took their quizzes. In addition, they had contact with other students and instructors in other classes. It is plausible that the contact with the instructor and other students substituted for the content interaction gained through threaded discussion and influenced student quiz performance. Off-campus students may find threaded discussion interaction more valuable than on-campus students because they have substantially less face-to-face interaction with instructors and other students and may use threaded discussion to compensate for the lack of discussion they may have if they were on campus.

Second, the quizzes themselves, pose a threat to validity. The quizzes may vary in difficulty, thus accounting for variation in scores within a condition and between conditions. To reduce this threat, it might be beneficial to administer a set of quizzes to a small group of students, examine the participant performance on a given quiz and across quizzes and eliminate questions that are too easy or too hard, so that each quiz distinguishes between high and low performance and all the quizzes have an equal level of difficulty.

Third, students' prior knowledge of topics covered during the course, such as, learning disabilities or deaf/hard of hearing, may influence quiz scores through application of their prior knowledge. Prior knowledge may be examined by taking pretest measures before the onset of data collection.

An empirical social validity measure might also be considered in replicating this study. For example, when

given a choice between participating and not participating in threaded discussion, what do students choose? Does this choice affect their performance on quizzes? Students in this study generally reported threaded discussion aiding their quiz performance, but there was little difference in their quiz scores when they did and did not post on threaded discussion.

Though this study provides few conclusions about the effects of threaded discussion on student quiz performance, it does expose several questions that remain unanswered. To leave those questions unanswered would be detrimental to improving the online learning environment for students and leave online instructors with little direction for improving online instruction.

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USABILITY ANALYSIS: HOW TO INVOLVE CONSUMERS IN WEBSITE DESIGN

Introduction

Ten years ago, most people had never heard of the Internet or the World Wide Web. Today it is as integral a part of many people's lives as automobiles or telephones. The 'net' has quickly become a primary resource for information, shopping and education. The Internet continues to grow at a phenomenal rate – between 1996 and 2002, the number of websites rose from around 100,000 to over 38 million, an increase of close to 3800% with no end in sight (Zakon, 2002). Advances in technology, decreasing costs of hardware, increased bandwidth, and development of user-friendly web page creation software guarantee that the Internet will continue to grow as a medium for information gathering and exchange.

However, this technological boom does not come without a cost. While there is a great deal of information out there, finding the appropriate information and being able to navigate new websites is not always as easy as the simple "point and click" of the mouse might suggest. As the development of computer and internet-based curriculums increases, consideration must be given to the widely varying technological literacy of the intended users. It is estimated that Internet use in the United States is growing at a rate of 2 million new users each month (CyberAtlas, 2002). This constant influx of "newbies" online means that websites must be easy enough for a novice to use but also appropriate for veteran "power users." It is no longer enough to evaluate only the content of a website, Website Usability must also be addressed. The user should be focused on the material on the site, not spending time learning how to navigate or search for things.

SPIES for Parents

Strategies for Preschool Intervention in Everyday Settings (*SPIES*) is a validated curriculum intended to introduce adults to intervention strategies that can be used with preschool children with disabilities, special health needs or who are at risk for the development of a disability. It was developed at the Center for Persons with Disabilities (CPD) at Utah State University with funding from Grants H029K50148 & H324R990009 from the U.S. Department of Education, Office of Special Education and Rehabilitation Services (No official endorsement should be inferred.). Utah State University provided support for development. Using everyday settings and daily routines as the context for intervention, it introduces strategies adults can use to help promote children's development and, when applicable, to master their IEP or IFSP objectives.

SPIES for Parents is an Internet-based version of the *SPIES* curriculum designed specifically to inform parents and primary caregivers of children with disabilities about intervention during routine activities. The original *SPIES* curriculum has been revised and adapted for parents. Because it is completely Web-based, parents may access it when and how they wish. This website has other purposes as well. It is also designed to:

- Help parents communicate with other parents and caregivers
- Provide links to other resources and helpful websites
- Show parents how teachers might embed interventions in classroom activities.

The *SPIES for Parents* website can be found at: <http://www.spiesforparents.cpd.usu.edu/>.

Design Challenges

Designing *SPIES for Parents* for the web presented many challenges. A diverse user population with disparate equipment, computer configurations and bandwidth made it very difficult to create a “one size fits all” design. Therefore, it was especially important to understand our audience and target their expectations. Because the site is stand-alone, it was essential for users to be able to easily navigate and understand the site in order to find the information that was helpful to them (Graham, 1999). Because of these constraints, we operated from the belief that evaluative feedback from our target users was critical in the development and evaluation of our site (Barnum, 2002; Coe, 1996; Hager et al, 1999). The *Spies for Parents* website incorporated feedback from the intended user population—parents of children with disabilities—at every step in its development. Their feedback was solicited through focus groups, on-line surveys, and through usability testing. This paper describes the usability testing process.

WHAT IS WEB USABILITY AND WHY IS IT IMPORTANT?

Web usability can be defined as the ease in which a visitor can navigate and use a given website. Several criteria can be used in evaluating whether an educational website is usable:

- Ease of navigation
- Ease of learning - whether the user gains the intended information from the site
- Retention of learning over time
- Speed of task completion - how long it takes to view the site or selected pages
- Error rate
- User satisfaction

It is estimated that almost 90% of current websites do not meet even base standard usability guidelines. One report of usability tests indicates that users were successful in completing their tasks only about 50% of the time (Nielsen & Norman 2000).

Today’s users are rarely “just surfing.” They want to go to a site, get what they need, and get on with their lives – not spend time learning how to navigate or search for things. Studies indicate that the user frustration threshold for most computing tasks is only 10 seconds (Lynch & Horton, 2002). If users find a site difficult to use, given the number of options available to them, they will look elsewhere. Many E-learning sites have met with disappointing results due to usability issues (Quinn 2001). Illustrating the importance of website developers ensuring that their websites are usable and accessible, it is estimated that people make a decision to stay on a site or look elsewhere based on only three mouse clicks (Schaffer, 2001)

HOW TO CONDUCT A USABILITY TEST

There are seven basic steps in conducting a usability test:

- Determine your target users
- Develop the test plan
- Prepare testing materials
- Set up a usability testing lab
- Recruit participants
- Conduct the tests
- Evaluate the results

Determine Your Target User: The first step is to understand the requirements of the intended audience that you are trying to reach. The use of focus groups and consumer polls in the early stages of development can provide valuable information on the goals and needs of these target users and help to clarify their expectations for your site.

Develop the Test Plan: The second stage of usability testing is to determine which site features you wish to test. First, identify the site's purpose and consider precisely what you want users to learn from their visit. Then, create true to life scenarios that will help you determine if the site facilitates these goals. Using the scenarios, create a set of tasks for the participant that will allow you to determine if the site is (a) appropriate for its purpose and (b) easy to use. The following is an example of a scenario and task list used in the evaluation of

Scenario 1

You want to find out about how you can use everyday settings to teach an infant (under 3 years)

- Look around the site to find information on infants
- When you find it, briefly review the material

SPIES for Parents:

Individual tests should last no more than 1 ½ hours, so it is necessary to limit what you want to know. Restrict the number of scenarios per test to four or five of the most important issues. Studies conducted by the Nielson-Norman group determined that 85% of usability issues will be identified using 3 to 5 people (Nielsen, 2000). This means that you can easily and inexpensively conduct several sets of tests throughout the development of your site.

Because the purpose of *SPIES for Parents* was to educate parents on intervention techniques using everyday activities, we included a learning assessment as part of our test. Participants were asked to fill out short pre and post tests on their knowledge about teaching children during everyday activities.

Prepare the Testing Materials: You will need to prepare several documents for your tests. Develop short questionnaires for participants to complete after each scenario. These questionnaires should ask whether the participant had any trouble with the tasks, if the material was appropriate for its purpose, and request any additional comments or suggestions that the participant can provide. These questionnaires should be short and easy for the participant to fill out. Develop a post-test questionnaire that addresses the participant's overall impressions and opinions. In addition, if you wish to assess learning, it will be helpful to create pre and post tests of knowledge. The development of a demographics questionnaire can help to identify specific characteristics of the target audience.

In addition to the questionnaires, create a test script to guide you through a consistent and organized testing cycle. The script should contain a step-by-step listing of each activity from before the participant arrives until after the participant leaves. Checklists of the materials you will need (such as videotapes, notepads, pens etc.) are also helpful to ensure that the tests run smoothly.

Finally, remember to generate any additional necessary paperwork such as reimbursement forms. As you will be video taping the testing sessions, prepare informed consent waivers to alleviate privacy concerns with your participants.

Set Up a Usability Testing Lab: Setting up a usability lab is quite simple. All you need is:

- A quiet room *with no distractions*
- A computer with Internet access
- A video camera and tripod
- Three chairs (one each for the participant, the test facilitator, and the testing assistant)
- A stopwatch or other timekeeping device

Depending on the goals of your test, other equipment such as computer logging software and additional video cameras may be useful.

Recruit Participants: Before you start recruitment, make sure that you know *who* your target audience is. To help determine if there is a match between the people that you invite to participate and your intended target group, develop a screening form listing the specific characteristics required of participants. You may also want to gather additional information on subgroups of users with specific characteristics and how they use and navigate your site.

If you do not have direct access to potential candidates, collaborate with others who may have contacts with your target audience. In the case of the *SPIES for Parents* tests, local early intervention program staff contacted parents who might have been interested in assisting us. We also created flyers to send home with the children enrolled in preschool programs.

Offering an incentive for participation in the test will go a long way in aiding recruitment. Depending upon your budget, incentives can range from small stipends to gift certificates or merchandise. The type of website, target audience, and complexity of the tests should dictate the appropriate level of compensation. Remember, your participants are doing you a favor by giving you their time and valuable insight into your product.

Once you have scheduled your recruits, you will be ready to begin testing. Because people have busy schedules and participating in a usability test is not in their normal routine, it is recommended that you contact your participants the day before their appointment to remind them and to make sure that they know where to go.

Conduct the Tests: Before each test, make sure that all materials and equipment are ready for the participant's arrival. Lay out pens for the participant, and make sure that the facilitator and assistant have notebooks and pens ready. Make sure that all of your questionnaires and paperwork is in order, that the video camera is working, and the tape is ready to record. Also, ensure that the computer is turned on and the web browser is set to the appropriate starting point.

During the test, the facilitator and the assistant have very specific duties: The facilitator is responsible for interacting with the participant. She should start by introducing herself and the assistant, welcoming the participant and thanking him or her for their assistance. Next, she should briefly explain the purpose of the test and provide a brief overview of what the participant will be doing. It is the facilitator's job to make the experience as agreeable as possible. *Stress to participants that it is the site that is being tested, not them.* Ask the participant to "think aloud" and to make as many comments as possible throughout the test. After the initial instructions, lead the participant through the necessary paperwork, the scenarios and task lists, and the questionnaires. Let the participant do the talking. The facilitator's job is to listen and remain neutral; avoid providing "hints" or asking leading questions. As the participant works through the test, observe his or her behavior and take notes of your observations. Once the tasks are finished, follow up on any interesting observations by asking non-leading questions. When the test is over, thank the participant, ask if there are questions or additional comments, and show him or her out.

The assistant is responsible for observation. She should sit close but out of direct view of the participant and take notes on the participant's actions, comments, and movements throughout the test. She should also be responsible for attending to the video camera – turning it on and off, making sure that the tape is working, and adjusting it to best capture the participant's facial expressions and screen movements. The assistant should also record the time taken for each task and note any problems that the participants encountered. At the end of the test, she should also follow up with additional non-leading questions to the participant.

After each test, the materials should be immediately gathered, organized, and labeled to avoid loss or confusion in setting up for the next participant. It is helpful for the facilitator and the assistant to discuss the test and any interesting observations. It is also advisable to type up the observation notes immediately while everyone's memories are fresh.

Evaluate the Results: After the tests are completed, it is time to evaluate the results. The data will be voluminous and offer many possibilities for analysis. The analysis should address (a) problems encountered by test participants, (b) patterns in activities and participant comments, (c) themes that emerge from the observation notes, and (d) the comments and ratings on the post task and post test questionnaires. If you included a knowledge assessment, pre and post tests results will require analysis. Reviewing the videotapes can help you to identify patterns and issues that might have been overlooked as you conducted the tests. The duration of each task, number of participant errors or missteps, and ratings on the questionnaires can be analyzed using descriptive statistics. The small numbers of participants in usability testing may make statistical analysis unfeasible. Qualitative statistical packages are available for the analysis of user comments, observer notes, and open-ended survey questions.

From informal observations during the tests, you will probably have identified any major problems and issues with the site. However, additional analyses can provide insight not only about usability issues but also about the target audience and how participants choose to navigate and use the site. This knowledge can be very valuable in making the site as appealing to your users as possible. After you have identified problems and user preferences, make changes to your site based on these analyses. If major changes are required, additional rounds of testing may be helpful. Remember, usability testing can be a very powerful tool – especially when used as an iterative device. It requires only a small number of participants and it is also an easy and inexpensive way to ensure that your site meets and exceeds the needs and expectations of your target users.

SOME LESSONS LEARNED FROM OUR USABILITY TESTING EXPERIENCE

Our tests yielded valuable information not only about our website in particular, but also on usability testing and user preferences in general. The following points emerged from our analyses:

- Keep your ego in check! Remember, the site should be built to please and assist the target users. In most cases, the developers are not part of that group.
- Sometimes things do not go the way that you expect. Be willing to adapt to the circumstances – you often get the best information from the most unexpected events.
- Different users navigate a site differently. Some used the site-map, others used the graphical buttons, while still others used text links. Provide multiple navigational options to allow a variety of users to access information in the way that is easiest and most comfortable for them.

Involving the intended audience in website development and evaluation can greatly enhance its utility. With input from potential users throughout the process, developers can address their needs and expectations. This increases the chances that future users will access the site and recommend it to others.

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TECHNOLOGY INITIATIVES IN A RURAL STATE AND IMPLICATIONS FOR PROFESSIONAL PREPARATION PRACTICES, WORKFORCE AND PERSONAL DEVELOPMENT

Context

State Vision: Maine people will be among the best educated in the world.

Maine's Learning Results express what students should know and be able to do at various checkpoints during their education.

Vision for Maine Schools: "transform Maine into the premier state for utilizing technology in K-12 education"

Learning Technology Vision for Maine Schools: Maine students will be the most technologically literate in the world.

NATIONAL INITIATIVES

FEDERAL LEGISLATION

Initiative	Purpose
Section 508 of the Rehabilitation Act- Accessible Electronic and Information Technology http://www.access-board.gov/508.htm	<i>Requires that any product used to acquire, store, manipulate or transmit information purchased by the Federal Government is accessible to people with disabilities unless an undue burden. Examples are software applications and operating systems; Web-based information and appliances; telephones and other telecommunications products; video equipment and multimedia products; computer hardware and closed systems such as photocopiers.</i>
The Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act	<i>Requires equal access to programs including those provided through distance education.</i>
The Individuals with Disabilities Education Act (I.D.E.A.)	<i>Free, appropriate public education in the least restrictive environment.</i>
The Telecommunications Act of 1996	<i>Provides for universal access to telecommunications services for schools and libraries.</i> http://www.ed.gov/Technology/fcc.html <i>Section 255 requires that telecommunications products and services be available for people with disabilities.</i> http://www.access-board.gov/about/Telecomm%20act.htm

OTHER NATIONAL INITIATIVES

Initiative	Purpose
<p><i>Americans with Disabilities Act and Accessible Electronic Information Technology in Education Technical Assistance Centers</i> http://www.adata.org</p>	<p>Provide information and training about the existence and importance of accessible information technology as it relates to policy, purchase and use for learning in K-12 education, adult and higher education, including distance education.</p>
<p>Universal Design for Learning lead by C.A.S.T. Inc. http://www.cast.org/teachingeverystudent</p>	<p><i>Derived from the concept of inclusive design, it provides a framework that can help maximize learning for every student by incorporating insights on learning and new applications of technology.</i></p>
<p>Voluntary national file format for the electronic transmission of instructional materials for students who are blind and students with other disabilities.</p>	<p><i>The project is intended to improve access to the general education curriculum in a timely manner for students with disabilities. CAST, Inc., in consultation with the National Institute of Standards and Technology (NIST) will convene a panel to develop recommendations for a set of technical specifications for accessible instructional materials, a timeline for the implementation of the proposed standard, and a process for assessing the success of standards implementation.</i></p>
<p>State administrative and legislative action regarding Accessible Instructional Materials http://www.cast.org/ncac/index.cfm?i=3122</p>	<p>Creates various requirements related to electronic textbook procurement preference or alternative format in states such as Kentucky, California, New York, Texas and Maryland.</p>
<p>Private software and web authoring vendor marketing efforts to K-12 and higher education</p>	<p>Provision of technology based learning tools.</p>

MAINE INITIATIVES

Initiative	Purpose	Funding
<p><i>Maine School Library Network</i></p>	<p>Connects 1100 schools and libraries to the internet and with each other.</p>	<p><i>Maine Telecommunications Access Fund which is supported by funds from telecommunications carriers. It extends free Internet services and serves as the State E-Rate.</i></p> <p><i>Federal Telecommunications Act of 1996 (Federal E-Rate) which subsidizes regular voice, data, video, phone service, Internet access, equipment and network services.</i></p>
<p>Interactive Distance Learning</p>	<p>Broadband two-way interactive audio/video/data used for conferencing and classroom instruction available 24</p>	<p>\$15 million State bond, Federal E-Rate, local dollars</p>

<p>Network (Asynchronous Transmission Mode-ATM) http://www.maine.gov/education/technology</p>	<p>hours a day, 7 days per week for instruction and community use. Interoperability allows interaction with other technologies including IP and ISDN video conferencing. There are 170 eligible sites including high schools, the Maine State Library, University of Maine and Governor Baxter School for the Deaf.</p>	
<p>Leading to Change: Technology as a Tool for 21st Century Learning http://www.maine.gov/education/technology/gates1.htm</p>	<p>Provide professional development opportunities that will strengthen superintendents and principals leadership regarding instructional technology. A three year grant offers regionally based training modules including web resources for administrators and classroom applications, multimedia tools and Universal Design for Learning: Teaching Every Child in the Digital Age are examples.</p>	<p>Bill and Melinda Gates Foundation, state, public and private organizations</p>
<p>Maine Learning Technology Initiative (MLTI) http://www.mainelearns.org</p>	<p>Statewide one to one computing for all public school 7th grade students and teachers. The effort provides a portable, flexible wireless device for each individual coupled with on going, regionally based education and professional development for teachers, principals and technology coordinators.</p>	<p>Originally authorized as a \$36 million state appropriations.</p>
<p>State Technology Plan</p>	<p>Provides a comprehensive plan to support the full integration of learning technologies into education in ways that improve student performance and enhance the teaching and learning process. The plan also requires similar plans to be developed and implemented by local school districts.</p>	<p>No Child Left Behind Act that includes both formula allocations and competitive grant funds. At least 25% of the Title II D funds are to be used for professional development.</p>
<p>EDS Corporation partnership</p>	<p>To enhance student learning by providing state of the art high tech software currently used by manufactures and businesses.</p>	<p>\$400 million of software donation from EDS Corporation</p>
<p>Maine Consumer Information Technology and Training Exchange (MaineCITE) Project www.mainecite.org</p>	<p>Develop statewide capacity to make assistive and universally designed technology more available to children and adults with disabilities.</p>	<p>The Assistive Technology Act and administered by the National Institute on Disability and Rehabilitation Research, U S Department of Education.</p>

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**NO SURPRISES! CONDUCTING PROFESSIONAL DEVELOPMENT VIA DISTANCE EDUCATION
TECHNOLOGY**

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DEVELOPING MULTILEVEL DISCOURSE: TECHNOLOGY TO SCAFFOLD LEARNERS IN NEED

This year, 2003, brings new and innovative incites to academia, specifically in regard to technology and special education.

Teachers, trained in new, affordable and user-friendly technology, will have valuable tools to enhance curriculum and assessment. More often, educators are developing technological tools specific to the needs of their learners.

Investment in creating better and more advanced teachers, by harnessing new technologically proven tools, will create an environment of discovery and personal success. We will then be able to teach and assess authentically, addressing the need of each child, while better enabling accurate evaluation and immediate opportunity for scaffolding (Venn, 2000; North Central Regional Educational Laboratory [NCREL], 1995). The examination of computers as interactive tools will enhance and improve the success of our countries most valuable resource, our "special educators".

Many schools today are equipped with a computer lab and it appears each teacher has a computer at their desk and possibly one station for students. If this is how the average American classroom is equipped, and the research on this seems to be ambiguous at best, still one must ponder why technology isn't impacting exceptional students on a higher level (Technology in Education, 2000). It is quite possible that the teacher's station is used primarily as a "glorified typewriter" and "automated grade book". Considering the over-worked and under-paid nature of their position, this in reality is a completely satisfactory reason to advocate this expenditure (Educational Policy Publications,2000). But with the declining prices for more than adequate and powerful computer hardware, becoming more available, the ratio of computers per student will improve, even in schools with modest technology budgets. This will make a substantial impact on the rural schools, learners in need, and the educator teaching these children. When you examine the fact that more and more children with special challenges are being mainstreamed, if not now, in the very near future, computer technology will play an extremely significant role in both curriculum and assessment.

Combining technological expertise and experience with the concept of authentic learning (i.e. authentic teaching) is a trend to be acknowledged. Authentic learning is learning that is not only functional, but meaningful. To elaborate, this type of learning prepares students for learning beyond the boundaries of the classroom and therefore is directly related to the perceived functionality (NCREL, 1995; The School Administrator, 1999). If we examine the vocational and professional climate in America, we see computers at use in almost all facets of the workplace. This is particularly important to students who are not learning specifically to further their education, but those children with challenges who are learning life skills for immediate application in daily existence. In my opinion, the school's role is not only to provide knowledge and promote it's retention, but possibly, more importantly teach children how to learn.

New and interactive presentations, as opposed to the typical white/ black board lecture manner of teaching do not suggest that the teaching methods used by today's teachers are obsolete. However, promoting the use of alternative ways of furnishing the students with information is to employ one of the most powerful tools education has ever enjoyed. If you examine the way that a preponderance of children entertain themselves, when left to their own devices, they choose videotapes, computer games, Nintendo-type interactive games and arcades. Imagine for a moment a curriculum that provided auditory and visual stimuli partnered with interactive educational framework and design. The children would, in many ways, associate this educational effort with the very entertainment they currently choose to enjoy.

Another device that computer technology provides is what could be referred to as "dynamic assessment". Using a contrived plan of action, which includes technology-based testing, today's special educators and their students will be able to take the information gained and immediately act on it. Translating into more elaborative processing, the construction of a more relevant knowledge base, promoting key concepts and vocabulary and developing improved study skills are basic examples. Overall, technology based assessment will improve related reading and writing skills, and most importantly learning processes. Each of these areas, speak to some degree to the special needs child.

Additional advantages that technology provides the special education arena are accelerated achievement. Infinite patience and unconditional acceptance can be the result. As a by-product of these ways to teach or assess, the student is scaffold in a very effective mode. In its efficiency, the computer can detect those that may be moving at a faster or slower pace and provide very timely acknowledgment of this individual's performance. Programmed intuitively, the computer could speak to what the child needs at that moment. In the limited scope discussed above, the computer has already enhanced the classroom and provided the student with a more supportive and non-threatening environment.

Modification of assessment tools is another powerful application for computers. In many of America's classrooms specially challenged students are now part of the mainstream. This makes valid assessment an almost impossible task to put on the shoulders of today's teachers. Constantly being asked to modify a test for specific students is a tall order. Mainstreaming, as mentioned earlier, places undo burden on the assessment process. Again, pre-conceived modifications of exams can be provided at the touch of a button, through technology. In this scenario, both teacher and student win. A test contrived at an earlier date may provide the more scaffolding in the academic climate allowing the child to reach their optimal potential.

Having mentioned authentic learning, I will now address scaffolding as a constructivist teaching tool. Without delving into psychological theory, we can examine interactive technologies ability to become an active partner, with the teacher guiding the focus of the learner. Technology now facilitates the creation of a supportive environment where students extend current skills and knowledge to a deeper level of competency. "Technological Scaffolding", the computer assistance teachers provide, enables students to perform tasks that cannot be undertaken alone. In our post-industrial society the new student must be a self-reliant worker who can function effectively in the modern work environment. Previously, technology transmitted information to a student in a passive, unilateral monologue. The new software and hardware available allows students to interact with the computer in a manner that is pre-conceived by the educator. For an example of this technology at work, one needs look no further than the arena of learning a second language. Programs are already in place that have voice recognition capability that allow an individual to respond verbally to the computer and the computer assesses the accuracy of the students efforts. "Technological scaffolding" will also allow teachers, at different locations, to work together with each other and their respective students over the Internet. The use of E-mail is an obvious advantage for the special education teacher, when, for instance working in the collaborative teaching mode, used in today's classrooms.

Scaffolding Defined: Scaffolding in CML is an interactive process by which a learner is assisted by others (surrogates, peers, or computers) to acquire knowledge or skill which cannot be acquired without assistance at that point in time and skill. It is like having training wheels on a bicycle. Understanding in a new learning setting is determined by the previous experiences of the learner, past knowledge and the ways in which previous information has been stored (memory structures determine how new information will be assimilated or accommodated). Learners seldom come to a learning setting with the same background knowledge and discourse history. Lifelong

learners are able to determine when they need background knowledge or they are able to find or access assessment processes on the Internet.

Ways Scaffolding Facilitates Learning: Independent [or online] scaffolding facilitates learning in the following ways: It helps learners make connections between what they already know and the new information, which is being presented. In this way new concepts are developed from and attached to earlier knowledge. It helps in developing mental schema, into which new information is transformed, as it becomes personal knowledge. That is, it helps in the organization of new information in ways that are meaningful to the learner. This assists in the development of evolving knowledge bases containing restructured information. Scaffolding reduces learning ambiguity. This facilitates the development of personal knowledge which is meaningful and which can be used by the learner. The transformation process allows the learner to internalize the information. Eventually the learner is in control of the task and the scaffolding is no longer needed. Some techniques that will facilitate this are modeling the performance, thinking out loud while you model the task, and pairing an advanced learner with a novice. Providing prompts, links, guides, and structures so that the learner can readily identify what is to be learned and how it relates to what is already known are also facilitated. Prompts and guides should be faded as soon as the student can perform without them.

Stages of Learning with Facilitation: Those who study learning, from a constructivist view, describe four stages of facilitated learning (or teaching). First, there must be orientation where the learner is exposed to the new information and the new information is related to the learner's prior knowledge. Then, if the learner is unable to assimilate and accommodate the new information, there is a period of coaching or apprenticeship where the surrogate and the learner think conjointly, and the surrogate provides scaffolding as is necessary for the learner to absorb the new information and transform it. Then there is tuning, where the learner refines the information and insures that he/she knows it in a way that allows it to be usable in authentic situations. Finally, there is a period of practice with supervision being faded in a behavioristic sense, which leads to autonomy of behavior. The behavior is routinized. The learner knows how and when to use the information and can do it effectively without external prompting.

Stages of Learning, from Weakness to Strength: Another way of looking at this is picturing four phases which learning goes through as part of the process. These are connections where weak links are established between the new information and what the student already knows. There is accretion where links are built up and the relationships are established to many more knowledges. This is the process whereby information is related to more and more things that the learner knows. The learner at least partially sees many relationships between the new information and what is already known. Then, there is a process of solidification where the links are strengthened. The learner is sure that the relations hold, and understands at least some of the meanings attached to these relationships. Finally, there is a process of articulation where links are further strengthened, where the relationships are clear, and some of the weak links are deleted, as learners understand that the initially perceived relationships are not appropriate.

Kinds of Scaffolding: There are many kinds of scaffolding some include offering explanations when learners do not understand new information, resolving questions which come up during a learning process, inviting participation from those who seem to be on the periphery who may not be interacting with the new information, sharing ideas to stimulate thinking about topics related to the information to be learned (may also be used to help the learner recall prerequisite information needed to use the new information), to verify and clarify understanding. See <http://www.newbie.net/CyberCourse/index.html> as an example of a CML tutorial, which provides scaffolding. Other techniques include the use of extensive examples and contributed ideas to the process which help learners see what the concepts and processes are which are important to this particular process.

We can never forget that we have nothing that will take the place of the teacher, not even the "mechanical brain" of the computer. It is only an educational tool, an exacting servant, who will do exactly what we tell it and no more. We are the masters of our fate and that of the children in our charge (exceptional or otherwise) and we will be considered neglect in our duty if we do not exhaust every means possible in preparing our young people and our teachers for the technological frontier on the, far too near, horizon.

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**Uniting Rural, Urban and Suburban America! Live
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Educators have long recognized the need for well-trained paraprofessionals who assist teachers and provide related services in special and inclusive education classrooms (Blalock, 1991; Drecktrah, 2000; Pickett & Gerlach, 1997). In January of 2002, President George W. Bush signed into law the No Child Left Behind act (NCLB), transforming the recognized need for well trained paraprofessionals into a federal mandate. NCLB requires paraprofessional candidates desiring work in Title-1 programs to hold an associate's degree, show 48-60 hours of semester credit on their transcript, or pass a rigorous local or state test indicating that they are "highly qualified." The requirements of the NCLB act extend these same requirements to all paraprofessionals, including paraprofessionals working in special education who work in schools designated as "school wide" Title-1 programs. Finally, all paraprofessionals hired prior to January 2002 must meet NCLB requirements no later than January 2006 to resume employment. It is widely believed that similar requirements for special education paraprofessionals will be announced with the reauthorization of the Individuals with Disabilities Education Act (IDEA).

With over 500,000 paraeducators working in U.S. schools (French, 1999) and the projected number to exceed 1,000,000 early in this decade, (Pickett, 1999) school districts, state departments of education and institutions of higher education have a daunting training task before them. The magnitude of the challenge is magnified due to some paraprofessionals' geographic isolation, public school districts' problems in developing comprehensive paraprofessional training programs that are based on existing standards, limitations in deployment of local experts to deliver training, and finally lack of funding for developing and delivering training.

Distance education is one alternative for delivering training and ameliorating the obstacles listed. In this presentation, Project Impact*Net, a model project for delivering training to paraeducators and teachers is described and is organized by instructional sites, instructional delivery system, courses, structure, curricula and assessment.

Instructional Sites

Beginning fall of 2002 Impact*NET courses were delivered to instructional sites in Wilmington, Delaware, Rexburg, Idaho, Turbotville, Pennsylvania, and Brigham City, Utah. In total, 69 participants from the four sites participated in the training. Approximately, two thirds of the participants were paraprofessionals and the rest were teachers. Initially, project staff identified prospective instructional sites by following leads from national and state educational leaders in paraprofessional development. More specific screening criteria established for selection of project sites were (1) District sites had to be located in one of three time zones: Mountain, Central or Eastern. Scheduling logistics prevented accommodating sites from more than three time zones, (2) A district was required to employ 40 or more paraprofessionals, so that a subgroup of 20 participants would be available for two semesters and another 20 participants for the next two semesters, (3) District sites were required to either possess or be willing to purchase the necessary hardware and software, (4) A district official was required to provide administrative support by signing a letter of agreement enumerating the responsibilities that they would attend to related to the project. These responsibilities included (a) recruitment of 20 participants for the course offerings, (b) identification of a site coordinator and technician (c) reservation and maintenance of a classroom space, (d) support

of participants as they completed course requirements, (e) maintenance of ongoing communications among coordinators, technicians, and project staff, and (f) facilitation of course evaluation and test delivery.

Instructional Delivery System

The Project Impact*NET delivery system is a live Internet-based, two-way audio/video system. This system allows the participants at the four sites to receive training simultaneously and to see and hear the instructor and fellow classmates at other sites. The site coordinator is also able to see and hear all participants at each site (see figure 1). I-visit, produced by Eyematic is the software application that supports the delivery system. Integral to the support and maintenance of the delivery system are the Project Impact*NET instructional designer and his assistant and the technical coordinators present at each site

The hardware to deliver Project Impact*NET instruction includes a computer connected to a reasonably fast Internet connection, sound mixer, microphones, microphone stands and cables, high end digital camera, internet server and a teleprompter. To receive an instructional broadcast, each site must also have a reasonably fast Internet connection, sound mixer, microphone, microphone stand and cables. Instructional sites do not require a high-end digital camera; a less expensive web camera works well. In addition, instructional sites require a LCD projector. The LCD projector projects the image shown on the computer screen onto a wall so all participants are able to view the broadcast with ease.

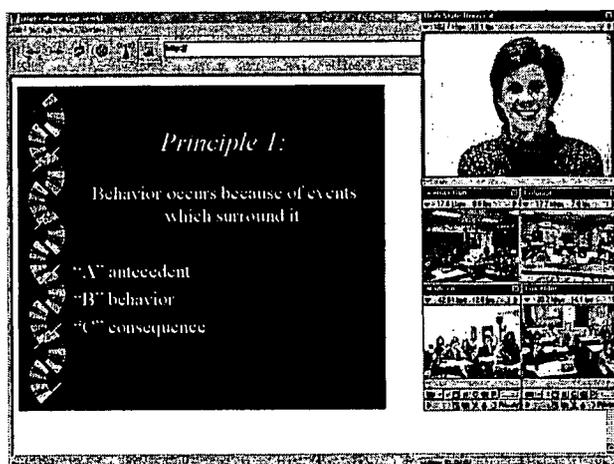


Figure 1. Instructor and participant view

Courses, Structure and Curricula

Project Impact*NET delivers four semester length courses; the first two courses are designed for paraprofessionals and each class is composed of ten three-hour sessions. The second set of courses is designed for paraprofessionals and their supervising teachers and each class is composed of three, three-hour sessions. All classes use curricula that include a text, and video materials depicting authentic educational situations requiring participants to apply skills or knowledge obtained from class readings or lecture.

The curriculum used for both paraprofessional classes is *Enhancing Skills of Paraeducators, 2nd edition* (ESP: 2) (Morgan, Forbush, & Avis, 2001). The primary objective of the ESP:2 curriculum is to increase paraprofessionals skills in working with at-risk students and students with disabilities. The curriculum used for the teacher and paraprofessional class is *Colleagues in the Classroom, (CINC)* (Morgan, Gee, Merrill, Gerity &

Brenchley 1998). The primary objective of the CINC curriculum is to provide teachers with the knowledge and skills to supervise their paraprofessionals and to form and strengthen their instructional team. Both curricula were developed and evaluated in previous grants from the U.S. Department of Education.

The structure of all project Impact*NET courses include a pre and posttest curriculum based assessment to assess students' pre-knowledge and end of course achievement. At the end of each unit or lesson in the text, participants are encouraged to complete the corresponding progress check in preparation for the weekly quiz. In addition, participants are to complete application exercises utilizing the knowledge and skills taught. Each course is graded on a pass/fail basis and participants who successfully complete a course are provided with an attractive certificate of completion and a detailed list of objectives that they successfully met to pass the course.

For each weekly session, the participant, instructor and site coordinator have a series of tasks that must be completed to experience a successful class session. Participants are expected to complete the assigned reading from the text, respond to the progress quiz and complete any application exercises assigned for the week. The instructor must prepare the session lecture, discussion items, application exercises, produce PowerPoint slides, produce the session agenda listing instructional activities by start time and duration of the instructional activity, select video segments that support session objectives, work with the instructional design team to list materials on the project website and finalize the items required for instruction. To be prepared for the session, the site coordinator must review the assigned readings and download session related information (e.g., session lesson plan, worksheets, handouts of Powerpoint slides) from the project web site. Site facilitators are required to know the content in the session sufficiently well that they can deliver the training on their own if the instructional system malfunctions. In addition, site coordinators must also grade progress checks and assignments from the previous session.

Assessment

Student achievement and course evaluation are the two types of assessment data collected each semester. Student achievement is assessed using a pre-posttest curriculum based assessment at the beginning and end of each course. In addition, students' acquisition of course knowledge and skill is assessed weekly with progress checks that reference weekly readings and lecture. Finally, students' performance on completed assignments is evaluated to assess student progress and the quality of instruction.

Course evaluation data is provided by participants, site coordinators and project board advisors. Participants and site coordinators evaluate the course at the end of the semester; but they also evaluate each session. At the conclusion of each session, site coordinators facilitate a 3-5 minute discussion with their respective participants to identify the strengths and weaknesses of the session. As comments are offered they are keyed into an email message by the site technology assistant and then sent directly to the instructor before leaving for the evening. Session feedback has been very valuable because it has allowed instructors to improve instruction in advance of the next session.

The course evaluation completed at the end of the semester prompts participants and site coordinators to offer a comprehensive evaluation of the various features of each course and the project. The course evaluation form is composed of 35 questions addressing the quality of the course, instruction, curriculum, and video and audio signal. Course evaluation questions use a six point Likert scale. After each question, a box is provided for the respondent to write a narrative comment in response to the question.

Early in the formation of Project Impact*NET an advisory board was formed. This six member advisory board is represented by two national leaders in paraprofessional training, a parent of a student with a disability, a paraprofessional with extensive experience in public schools and a special education faculty member recognized for her knowledge and skill in leading a distance education training program. During the semester VHS tape recordings of the second session and all that follow were sent out to board advisors. In addition to the VHS tape each board member also received a copy of the syllabus, session materials, lesson plan and external readings. Given this information to aide in establishing a context for the session, the board advisor viewed the video tape and responded to the same comprehensive course evaluation form that participants responded to at the end of the semester. Once received by project staff, board advisor comments are reviewed by the project team and suggestions for change are considered and then implemented.

Finally, at the end of the semester all board advisors and project staff participated in a conference call to discuss the strengths and weaknesses of the semester courses and consider new directions for the next semester.

Conclusions

Given the federal training mandates and the restricted timeline for meeting training requirements, state and local agencies need a variety of options from which to select. Several options will allow agencies to assess their own needs and select the most appropriate alternative. Given further refinement, the live, internet-based system described may work well for state and local education agencies having limited numbers of local experts for training delivery. For these agencies, such as those in rural and remote areas or those employing teachers with other priorities, the system provides an outside instructor and training delivery method. For example, a state educational agency with these training needs may hire an instructor, set up the technology, and deliver training from a distant location to several sites. Or, an agency may contract with a local teacher/personnel preparation program to broadcast to sites.

The system may also be tailored for state and local agencies needing cost efficient training. Although start-up costs are relatively high to establish a broadcast location, costs to district sites are modest. While districts will want to explore ways to cover costs of paraprofessional training, in some situations, some costs may be passed along to paraprofessional trainees.

Currently, this project delivers a sequence of two courses to paraprofessionals. Far more instruction is required to obtain an associate's degree, which is one of the mandate options. However, by establishing a live, internet-based system, a community college or other higher or professional education program may be poised to deliver several courses leading to such a degree. More development and evaluation will determine the extent to which the system is adaptable to different training needs and configurations.

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Transition

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TRANSITION TO POSTSECONDARY PLACEMENTS: FROM A RURAL PERSPECTIVE

As Sylvia Parker (2001) points out in her opinion piece *Rural 2000 and Beyond* there is great hope for rural school survival. Part of this hope depends on students leaving their rural community for a period of time, usually for college, and then returning to assist in the further development of the area. This idea is often impacted by the limited number of jobs and lower occupational attainment (Rojewski, 1999) available to students graduating high school in rural communities. With this realization students often decide that in order to expand career opportunities and further educate themselves they must leave their rural communities. "While they make contributions elsewhere, they represent yet another extraction of resources from rural areas-like grain, cattle lumber, fish, minerals, and oil" (Parker, 2001, p.51). To combat this loss of resources, rural schools should use their assets to assist students in making transition plans that include both post secondary and work components.

Will's (1984) definition of transition incorporates both secondary and work components as stated:

Transition from school to working life is an outcome orientated process encompassing a broad array of services and experiences that lead to employment. Transition is a period that includes high school, the point of graduation, additional postsecondary education or adult services, and the initial years of employment. Transition is a bridge between security and structure offered by the school and the opportunities and risks of adult life. Any bridge requires both a solid span and a secure foundation at either end. The transition from school to work and adult life requires sound preparation in the secondary school, adequate support at the point of school leaving, and secure opportunities and services, if needed in adult situations (p.10).

The transition process consists of a set of activities designed to assist students in preparing for, and understanding the new environments they are entering. For these transition activities to occur successfully, a comprehensive transition process must be in place within the secondary educational setting.

When enrolling in a postsecondary institution, students with LD often move from an environment in which they were carefully guided to a setting in which they are expected to achieve on their own (Brinckerhoff, Shaw, & McGuire, 1993; Dalke & Schmitt, 1987; Ryan & Price, 1992). Though students with LD are usually provided with transition services, most are unprepared for this transition and need assistance in navigating through the continuum of programs and services provided by institutions of higher education (Aune, 1991; Brinckerhoff, 1996; Siperstein, 1988; Vogel & Adelman, 1992). To assist students in achieving successful transitions Aune (1991) developed a transition model that included: (a) understanding strengths and weaknesses; (b) awareness of post-secondary requirements; (c) exploring career options; (d) selecting a college; (e) using study strategies; (f) using accommodations; (g) developing self-advocacy skills; and (h) improving self-advocacy skills. The processes used to enhance these areas were developed within the student's individualized transition plan (ITP) so that appropriate course work based on their post school objectives, the learning and implementing of study strategies, the exploring of different career options, and increased awareness of the postsecondary school options could be developed during high school.

The overarching component within the transition process is the development of an ITP that includes objectives to be followed for the student to reach his /her transition goals. The main goal of the ITP is to prepare students to lead productive, independent lives after their secondary education experience. To achieve the goals written in the ITP, students must first be integrated into normalized environments within their secondary education. Secondly, paid work experiences are essential to provide the students the experiences needed to secure and hold a job. Thirdly,

family and friends must be supportive during this time. Finally, one individual should oversee coordination of services. This insures all resources and information are being properly and consistently disseminated. Instruction on how to secure a job and assistance in locating a job might be necessary for certain students. All of these components must be assessed and evaluated so educators can see the impact of the transition process. In rural settings the goal of transition as defined above is impacted by narrow school curricula, restricted labor markets, and few college and professional role models (Rojewski, 1999). The options that students explore are also impacted by their desire to remain in the area in which they grew up rendering them place bound. Resulting in students from rural areas needing to first form a realistic picture of their options within their community setting, before developing a comprehensive transition plan.

In spite of all the transition planning that is done, only 32% of people with disabilities between the ages of 18-64 work full or part-time as compared to 81% of the nondisabled population resulting in a 49% gap (National Organization on Disabilities, 2000). Research suggests that part of the reason for this gap is that only 54% of students with disabilities persist toward graduation or are still in enrolled after six years in a postsecondary institution as compared to 64% for nondisabled students (US Department of Education, 2000) thus, limiting the employability and career options for students with disabilities. While these figures suggest that students with learning disabilities are not achieving to their full potential, the percentage of full-time college freshmen citing learning disabilities (LD) at four-year institutions of higher education in the United States more than doubled, from 1% to 2.4% between 1988 and 2000 (Henderson, 2001). With school populations continuing to increase, it is logical to assume that students with LD will continue to enter postsecondary institutions in large numbers throughout the next century including students from rural areas.

Nichols (2001) suggests that for rural students with disabilities their transition plans begin by:

1. Identifying employers within the demographic setting who are open to employing students with disabilities after they graduate from high school or postsecondary programs.
2. Determining the wage that will be needed in order to maintain a decent standard of living.
3. Assisting students and their parents in associating with agencies, who will subsidize wages during the student's training period.
4. Assisting students in accessing health care, if it is not provided by employers.
5. Trying to establish a working relationship with employers where students can engage in on-the-job training prior to graduation (p.39).

Once this is done students with disabilities will then be able to determine what type of postsecondary education is appropriate for achieving their employment goal.

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WORK INCENTIVES AND THE TRANSITION TO WORK IN RURAL AREAS

Introduction

Over the past several years numerous programs have been designed to provide individuals with disabilities with "work incentives" to encourage and support them in their efforts to seek employment. Many of these "work incentives" have been formalized in federal legislation and regulations including the Americans with Disabilities Act, the Workforce Investment Act, and the Ticket to Work and Work Incentives Improvement Act (TWWIIA).

In October 2000, Utah received a time-limited (4 years) systems change grant designed to improve employment outcomes for individuals with significant disabilities (particularly those receiving benefits from the Social Security Administration) by changing the systems of work incentives and supports in Utah. As part of this grant a group of consumers, family members, state agencies, and private service providers came together to develop the Utah Work Incentive Coalition. This statewide coalition coordinates and administers a number of systems change projects and programs under the umbrella of the Utah Work Incentive Initiative (UWIN).

One of the main UWIN efforts involves providing consumers, families, state agency staff, and private service providers with training and practical knowledge regarding the new Social Security and Medicaid work incentives authorized under TWWIIA. The training is designed to assist Supplemental Security Income (SSI) and Social Security Disability Insurance (SSDI) beneficiaries, and those who support these individuals, to make informed decisions about entering (or re-entering) the workforce. It is imperative that these individuals fully understand the available work incentives and how to utilize them. A concerted effort has been made to provide UWIN training to individuals, family members and service providers in rural areas of the state, taking into consideration the unique challenges associated with living in rural environments. Additionally, Transition Coordinators statewide have been and continue to be among the key service providers specifically targeted to receive the UWIN training.

Although this article draws upon experiences and information originally developed for Utah, the majority of the information regarding the new work incentives available as a result of the TWWIIA legislation, as well as previously existing Social Security work incentives, is applicable nationwide. Accurate information about these work incentives is critical for individuals receiving SSI and/or SSDI, their families, and school personnel in order to develop a transition plan that will allow individuals to participate in the workforce (or obtain further preparatory education and/or training) to the greatest extent possible. The specific work incentives, which will be discussed in this article include:

- Benefits Planning Assistance and Outreach (BPAO); Expanded Medicaid Health Coverage; Employment Related Personal Assistance Services; Ticket to Work; Protection and Advocacy; and existing SSA work incentives including Plans for Achieving Self Support (PASS), Student Earned Income Exclusion, Impairment Related Work Expense (IRWE), and Subsidy

Why Work

Before discussing the specifics of work incentives it is important to establish a broader understanding of why a transition student receiving Social Security benefits would want to begin to work and possibly reduce or eliminate these benefits completely. What are the benefits of work? In rural focus groups and training sessions across Utah during the past year, young adults and adults with disabilities have been asked to discuss what the benefits of work are and why someone with a disability would want to work. The benefits of working as stated by these participants included increased self-esteem, a sense of accomplishment, opportunities for friendships, being able to contribute to society, the chance to focus on ability and not disability, the chance to "fit in," to be a more active member in society, and greater financial freedom.

Barriers to Work

The follow-up question to "why work?" posed to focus group and training participants was, "If there are so many positive aspects associated with working, why aren't more individuals receiving SSI and/or SSDI working? What are the real and/or perceived barriers to employment that students in transition, especially in rural areas, face?"

According to these rural focus groups as well as training participants, barriers to work for individuals with disabilities include: the fear of losing the safety net of Social Security benefits (for both individuals and families), concern about losing Medicaid benefits, employer discrimination, and the lack of necessary support to gain and maintain employment. These complex barriers to work are further compounded by additional factors associated with living in rural areas. Rural areas generally have fewer employment opportunities overall. There is often a lack of state/private provider services and supports to assist individuals with disabilities enter or re-enter the workforce in these areas. Access to transportation to get to a job is also often problematic (National Organization On Disability [NOD], 2003; Research and Training Center on Rural Rehabilitation [RTC], 2003). All of these challenges suggest that it is even more important for individuals with disabilities in rural areas, and those who support them, to fully understand the variety of work incentives that are available to assist them in overcoming barriers and experience the benefits of work.

Ticket to Work and Work Incentive Improvement Act

TWWIA is designed to increase the employment of people with disabilities nationwide by providing additional work incentives that address some of the barriers previously mentioned. Additionally, as a result of TWWIA, a renewed effort to educate individuals about previously existing work incentives has taken place. These new and existing work incentives are designed specifically for beneficiaries of SSI and SSDI between the ages of 18-64. The two major parts of the TWWIA legislation are the creation of the Ticket to Work program administered by SSA and other efforts to expand health care coverage so that individuals with disabilities can be employed without immediately losing their health insurance (one of the most commonly identified barriers to work by individuals and families) (U.S. Department of Labor, Office of Disability Employment Policy [DOL], 2003).

New Work Incentives

In the following sections, these new incentives are briefly described with an emphasis on their relevance for transition students in rural areas. It is important to note that not all available SSA work incentives are discussed and not all work incentives will apply to all SSI and/or SSDI beneficiaries. The Social Security Administration remains the sole source for official information regarding each applicable work incentive. The purpose of this article is to give interested individuals a brief glimpse of new and existing work incentives that can help students in rural areas who are beneficiaries of SSI and/or SSDI to transition more successfully into the world of work.

Benefits Planning Assistance and Outreach-BPAO

Benefits Planning Assistance and Outreach (BPAO) is critical to the successful utilization of the new work incentives as well as assisting individuals and families to better understand and utilize an array of existing work incentives. Under the TWWIA legislation SSA awarded every State, the District of Columbia, and the U.S. Territories at least one BPAO project (state specific contact information can be found on-line at www.ssa.gov/work/ServiceProviders).

These BPAO projects are designed to provide all SSI/SSDI beneficiaries, including transition-to-work aged youth over 18, with access to benefits planning and assistance. The role of Benefits Specialists in these programs is to provide individuals, families, and other support providers with a comprehensive analysis of how employment will affect an individual's entire benefits package, including SSI/SSDI cash benefits, health benefits, and other state specific benefits such as food stamps, public housing, and transportation (Social Security Administration, Office of Employment Support Programs [SSA], 2003). With accurate information, transition students can make informed decisions about working. Benefits Specialists also conduct outreach and work closely with Federal, State, private providers, and nonprofit organizations that serve SSI/SSDI beneficiaries to provide assistance to as many beneficiaries as possible (SSA, 2003). Some states have been working closely with transition personnel in the school districts and innovative procedures include meetings with a trained Benefits Specialist to provide a benefits plan as an integral part of the transition planning process. The goal of providing all students receiving SSI/SDI with a comprehensive benefits analysis prior to their leaving the school system is being addressed within several states and at the national level.

This collaboration between the school districts and state BPAO projects is particularly useful in rural districts. In rural and frontier counties, with scarce services and limited systematic access to state level experts, it is imperative that accurate and timely information be available to ensure that informed decisions can be made. For instance, in many rural areas direct person-to-person access to agency personnel, such as vocational rehabilitation counselors, Medicaid eligibility specialists, and/or Social Security representatives may be severely limited. These staff maybe available on an infrequent basis (once a month, two mornings a week, etc.) or may be housed in distant areas of the county or in other counties. Since it is critical for transition students, their families and support systems to have multiple opportunities to explore the impact of working on benefits, the role of the BPAO projects cannot be over-emphasized. In Utah, the BPAO Specialists take applications statewide, and then travel to rural areas to meet personally with interested persons.

Expanded Medicaid Health Coverage (Medicaid Work Incentive)

TWWIIA legislation also provided states with the *option* of expanding Medicaid coverage to people with disabilities ages 18-64 who are employed and have countable income above 100% of poverty. A similar option was made available to states in the Balanced Budget Act of 1997. To date, 26 states have expanded health coverage under one of these options. Under this new option states can increase the income and asset limits for Medicaid eligibility. Individuals making over 100% of poverty (may differ in other states) would be allowed to buy-in to Medicaid by paying a monthly premium based on their income level (DOL, 2003). This buy-in option would allow transition students (over 18 and receiving benefits as an adult) to be employed and continue to receive Medicaid coverage. States have also been given the option to "provide employed individuals who have certain medically determined impairments, as determined by the Secretary of Health and Human Services, the opportunity to buy into Medicaid even though they are no longer eligible for SSDI or SSI disability due to medical improvement" (SSA, 2002, p.3) Additionally, under this expanded health coverage option of TWWIIA, "Medicare's Part A premium-free hospital insurance coverage is extended a minimum of eight and a half years to most SSDI beneficiaries who work" (SSA, 2002, p.3).

Employment Related Personal Assistance (E-PAS)

Employment Related Personal Assistance (E-PAS) is not a specific SSA work incentive, but rather a type of program that several states are developing as part of their recently awarded Medicaid Infrastructure Grants. E-PAS (may be called by different names in other participating states) is a Medicaid service with a general purpose of providing individuals with disabilities personal assistance services to help them maintain employment. In Utah, E-PAS is designed to assist individuals with moderate to severe levels of disabilities to work in integrated settings by providing employment related *direct assistance or cueing* with hygiene, meal preparation, shopping, transportation, etc. Services can be provided at home and/or at work.

It is important to highlight the fact that E-PAS is not limited to *direct physical assistance* with activities of daily living such as bathing, dressing, eating, etc. but also includes *cueing*. Cueing is the type of assistance that individuals with mental illness or cognitive impairments may need in order to remember to take medications, dress appropriately for work, and maintain an employment schedule. In Utah, the E-PAS program will pay for the cost of

a personal assistant's time in transporting an individual to and from their place of employment. This is especially helpful in rural areas where transportation options are severely limited (NOD, 2003; RTC, 2003). It should be emphasized that E-PAS is not the same as job coaching or non-work related personal assistance. E-pas is designed to support individuals who have employment and the corresponding job skills already in place, but require assistance to maintain that employment.

Ticket to Work

As mentioned earlier, the Ticket to Work program is one of the main pieces of the TWWIA legislation. It is designed to provide beneficiaries of SSI and/or SSDI with expanded access to employment services including job training, vocational rehabilitation and employment placement services. This will be accomplished through the establishment of new Employment Networks (EN) in each state. Employment Networks are public or private entities that have received SSA approval to provide job training, employment services, and other related support services to assist individuals with disabilities to become employed. (State Vocational Rehabilitation agencies will automatically be considered an EN). Employment Networks will be compensated based on their ability to assist Ticket holders to become employed and gradually move off benefits. As the number of ENs increases, beneficiaries will be able to choose to receive services from the EN that can best meet their needs (DOL, 2003).

Each beneficiary of SSI and SSDI (between the ages of 18 and 64) will receive a "Ticket" in the mail from SSA. The Ticket program is voluntary and does not have to be used by recipients. However, beneficiaries who choose to use their Ticket and are actively working with an EN to reach employment related goals will not have any Medical Continuing Disability Reviews for as long as their Ticket is in active use. The Ticket to Work program is being implemented across the nation in three phases. Currently the first group of states and part of the second group are actively implementing the Ticket to Work program. The third Groups of states will begin implementation in the fall of 2003. The Ticket to Work website at http://www.ssa.gov/work/Ticket/ticket_info.html can provide information on the status of each state. For transition students in rural areas, the Ticket to Work promises to offer access to additional agencies that have a vested interest in ensuring that employment is obtained and maintained since payment to the ENs is based on the individual moving off benefits (DOL, 2003).

Protection and Advocacy

The Social Security Administration provides funding to each of the designated Protection and Advocacy (P&A) systems in each of the fifty States, the District of Columbia, and the U.S. Territories to administer the Protection and Advocacy for Beneficiaries of Social Security (PABSS) program. The PABSS program in each state provides free of charge the following services: (1) reviews complaints against an employer network or other service provider that assists person returning to work; (2) offers information and advice about vocational rehabilitation and employment services, (3) makes available information about SSA's work incentives and how states are implementing them; (4) provides consultation and legal representation to protect individual rights in the effort to secure or regain employment; (5) assists individuals to understand and advocate for their rights; and (6) addresses problems concerning individual work plans under the Ticket to Work program (SSA, 2002).

Existing Work Incentives

In addition to these new work incentives, there are numerous existing SSA work incentives that are useful in providing a safety net when SSI/SSDI beneficiaries are employed and may lose their benefits. Several of those most relevant to students in transition are described briefly in the following sections.

Plan for Achieving Self Support

A Plan for Achieving Self-Support (PASS) allows an individual receiving SSI, or who is eligible to receive SSI, to put aside income and/or resources to be used for achieving a specific time-limited employment goal. The income and resources set aside for a PASS plan can be used to pay for a variety of services and items that would allow an individual to accomplish their employment goal including education, vocational training, and expenses incurred in starting a business. Using a PASS plan can actually help individuals maintain their SSI eligibility and even increase their SSI payment as the income and resources set aside in the plan are not counted when SSA figures an individual's monthly income to determine their SSI payment. There are several specific criteria that must be met

in order for a PASS plan to be *approved by SSA* and it is strongly recommended to check with SSA regarding the exact requirements. (SSA, 2002)

PASS plans are an often underutilized work incentive in many states although they have significant potential for helping transition students reach employment goals that may require some additional training or resources. Individuals should receive assistance in writing a PASS plan from someone who has experience in writing these plans and is familiar with the SSA requirements.

Student Earned Income Exclusion

The Student Earned Income Exclusion (SEIE) is available for individuals receiving SSI who are under the age of 22, not married, not head of household, and regularly attending school. SEIE allow these qualified individuals to exclude up to \$1320 of their earned income a month (maximum \$5,340 per year) from the amount of income used to determine their SSI payment. (Amounts given are for 2002; amounts are adjusted yearly.) "Regularly attending school" is defined as follows by SSA: (1) in a college or university for at least 8 hours a week; or (2) in grades 7-12 for at least 12 hours a week; or (3) in a training course to prepare for employment for at least 12 hours a week (15 hours a week if the course involves shop practice); or (4) if home taught because of a disability, individuals may be considered regularly attending school by: studying a course or courses given by a school (grades 7-12), college, university or government agency; and having a home visitor or tutor who directs the study (SSA, 2002, p. 44).

The SEIE is an important incentive for transition aged student to consider because it allows them to gain work experience and increase their earned income while they are still in school without negatively impacting their monthly SSI payment. It also encourages students to stay in school while working because they can keep a greater share of their SSI payment than they would if they were only working.

Impairment Related Work Expense (IRWE)

Impairment Related Work Expenses (IRWE) is available to beneficiaries of both SSI and SSDI. IRWEs allow individuals to deduct the cost of certain items and services that are necessary for them to work and are directly related to their disability from their gross earnings. However, these items and services must be paid for by the individual with no expectation of reimbursement. These deductions help individuals keep their earnings below the Substantial Gainful Activity (SGA) level. The SGA is the level of earnings at which SSA begins to reduce or terminate cash benefits depending on whether an individual is receiving SSI (cash benefits reduced) or SSDI (cash benefits terminated) (SSA, 2002).

There are a wide variety of items and services that can be claimed as an IRWE, however SSA must make the final determination. In general there are certain expenses in the following categories that can be used as an IRWE: attendant care services, transportation costs, medical devices, work-related equipment and assistants, prosthesis, residential modifications, routine drugs and medical services, diagnostic procedures, non-medical appliances and devices, and other items and services such as a helper animal. Perhaps one of the most important IRWE categories for individuals in rural areas to consider pursuing involves possible deductions for transportation costs, as this is often a costly and significant barrier to work particularly in rural areas (SSA, 2002).

Subsidy

Subsidies are valuable work incentives that can help individuals increase their monthly earnings, without reducing or losing their SSI or SSDI benefits. According to SSA (2002), when an SSI or SSDI beneficiary receives "extra support on the job that results in them receiving more pay than the actual value of the services they perform" (p. 33) they are receiving a "Subsidy". Examples of situations that may constitute a "Subsidy" include: (1) receiving more supervision than other workers doing the same or similar job for the same pay; (2) having fewer or simpler tasks to complete than other workers doing the same job for the same pay; (3) having a job coach or mentor who helps perform some of an individual's work (SSA, 2002, p.33). If an individual's employer documents that the individual receives some type of subsidy while on the job, SSA will adjust the individual's countable income accordingly. For example, if an employer indicates that an individual making \$1,000 per month is subsidized 30% of the time they are at work, SSA will reduce the individual's monthly earning of \$1,000 by 30% making the

individual's countable income \$700. The countable income figure is used in the SSI program to determine the monthly payment amount; in the SSDI program it is used in deciding if the worker exceeds SGA (SSA, 2002).

Conclusion

The overall purpose of the work incentives mentioned in this article, as well as others not discussed, is to assist individuals with disabilities pursue employment opportunities that can improve their quality of life. Because of the complexity of the SSI and SSDI benefits programs, it is critical that individuals and families have an accurate understanding of the work incentives that are available. This knowledge, and the subsequent actions undertaken by the beneficiary, can significantly reduce the negative impact that increased income can have on a person's benefits. A clear understanding of the possible programs and work incentives to support students in transition is important in any setting, but it may take a concerted effort for those living in rural areas to make and maintain connections with the agencies and providers that have the most up-to-date knowledge and information regarding these programs. It is important then for rural school districts to assist transition students and their families in obtaining and including the most current and accurate information regarding work incentives as part of the transition planning process. To accomplish this, rural school districts may wish to assign an individual within the school to act as a liaison between transition students and their families and the state Benefits Planning Assistance and Outreach program, local SSA representatives, Protection and Advocacy program, the Medicaid Policy Specialist for the state, etc. As mentioned previously several states are currently working to formalize the way that benefits planning (the key to using work incentives effectively) are incorporated into the transition planning process and rural school districts can and should play an important role in developing an effective mechanism for this. Parents of transition students also have an important role in advocating for the incorporation of benefits planning into the transition planning process in a meaningful way.

It is essential as school personnel who work with transition students receiving SSI/SSDI to understand that there does not have to be an "either or" situation when considering working and receiving benefits. Many of the work incentives discussed previously can be used to assist individuals to work and still maintain the safety net of SSA and Medicaid benefits. Although SSA is striving to encourage people to work and gradually not rely on benefits, those who realistically need to maintain their benefits to supplement their earned income can use work incentives to try working without risking losing vital supports.

Involving schools and transition personnel in helping individuals and families understand available work incentives is a natural fit, as students in this age range are perhaps the most likely group of SSA beneficiaries to make the transition to work and fully utilize the new and existing work incentives. Beneficiaries this age are surrounded by peers that are preparing to enter the workforce or further their education in preparation for work. This creates a natural expectation that students with disabilities should also plan on being employed. Because of the rich and dynamic environment of schools and the power of peer expectations, transition students have a greater desire and motivation to experiment with work than older SSA beneficiaries who have not worked for many years. Providing these students and their families with information about and access to work incentives during the transitions period can support them in making informed decisions that will lead to successful work experiences and subsequently the chance to experience the many benefits of work.

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**PROVIDING PSYCHOLOGICAL CONSULTATIVE SERVICES TO STUDENTS WITH
EMOTIONAL/BEHAVIORAL DISABILITIES: A COLLABORATIVE EFFORT BETWEEN RURAL
SCHOOL DISTRICTS AND A UNIVERSITY TRAINING PROGRAM**

Introduction

Students living in rural areas are faced with a variety of psychological problems. Services related to these needs may be overwhelmed initially due to the limited availability of qualified and experienced staff (Paez & Rhodes, 1998). Because qualified examiners must have skills in both the mental health field and special education to appropriately identify and address the potential needs of students with unique behavioral problems, students may go unserved or at best be under-served (Huebner & Wise, 1992; Human & Wasem, 1991; Murray & Keller, 1991). An inability to commit personnel and facilities to meet the needs of a small number of students often jeopardize the provision of quality services to students with emotional/behavioral disorders (Jacob-Timm, 1995).

The Least Restrictive Environment mandate of IDEA is often tested with regard to those students who pose an endangerment to themselves or their classmates. Completion of referral and assessment procedures in a timely manner becomes a daunting task for many rural districts due to the lack of service providers and high turnover rate (Huebner & Wise, 1992). Teachers are often confused about the specific questions related to the appropriate service delivery options for students with emotional/behavioral disabilities (Thompson, 1992). If students with emotional/behavioral disabilities are to be educated as much as possible with their non-disabled peers and receive the support necessary for academic success, it is evident that the services of a qualified school psychologist are needed to ensure appropriate assessment and follow-up services (Fagan & Wise, 1994).

The training needs of rural psychologists serving school aged children may differ somewhat from those of their urban counterparts (Reschly & Connolly, 1990). Although the basic training needs of rural and urban psychologists do not differ significantly, issues related to cultural diversity, burn out, and logistics are relevant concerns (Reschly & Connolly, 1990). The generalist nature of many school psychologists in rural areas suggest a need for adjustments of current university training programs (Paez & Rhodes, 1998). Universities have a long tradition of combining training missions with service to constituent communities. Changes in the manner in which psychologists are trained to serve rural constituencies are needed due to a greater need for persons prepared to assume a facilitator role (Paez & Rhodes, 1998). Partnerships between schools and universities located in rural regions is one avenue for addressing the needs of students who are under identified and served.

The purpose of this paper is to report the results of a project designed to increase the availability of psychological services to rural schools in southwest Oklahoma. An important element of this discussion is a description and evaluation of a supervised graduate practicum experience.

The Mutual Need of Rural School Districts and a Small Regional University

Cameron University has approximately 240 graduate students, 90% of whom are planning on careers that include counseling and/or testing. These students require three hundred hours of practicum experience before graduation. Cameron University is located in Lawton, Oklahoma, who population of approximately 100,000 does not offer enough practicum sites to meet graduate students' needs. Also, Cameron University does not have a campus-based clinic which would facilitate faculty clinical supervision of in-training counseling students.

Rural school districts have identified several areas of need for counseling service delivery. The lack of population in smaller towns makes the availability of counselors/mental health providers limited and therefore, students with special needs are not receiving services. There is a shortage of professionals to conduct psychological evaluations in the rural school districts. There is a need for professionals to develop and help in the implementation of behavioral intervention plans. Additionally, there is a significant need for professionals who have expertise with behavioral interventions to consult with classroom teachers regarding their students who have attentional problems and receive accommodations through a 504 Plan.

These problems were used to develop the goals of the proposed program.

Collaborative Program

Program Goals

The program's goals were to deliver comprehensive counseling/testing services to special services recipients in rural public schools in southwest Oklahoma and to establish supervised practicum opportunities for graduate students in the Behavioral Sciences program at Cameron University.

Participants

Several rural public schools in southwest Oklahoma were selected due to their proximity to Cameron University. Special services directors were approached by the project supervisor to determine if their schools would be interested in participating in this program. A presentation to each district's special services director and special education teachers was made in order to get feed back from the personnel who were providing the special education services. The special services directors then presented the program to their superintendents and school boards. Some of the school boards then asked the university project supervisor to speak to them. Three school districts were selected.

Cameron University provided five graduate students to serve as counselors for 35 rural public school students. Counselors averaged sixteen sessions per student.

Program Design

This program was designed to create a collaborative effort between Cameron University and rural public school districts in order to address the goals listed above. Once the school boards agreed to participate, a Memorandum of Understanding (Appendix A) was presented and signed by both Cameron University and the local school district. The Memorandum of Understanding delineated the responsibility of each party and the procedures which needed to be followed in order to effectively carry out the goals of the program. Much care was given to completion of all essential paper work prior to implementing services.

Program Quality Assurance and Data Collection

The *Youth Outcome Questionnaire (YOQ-45.2)* is a self-report instrument that measures children's and adolescents' progress in therapy, during treatment and after termination. The instrument measures the person's subjective discomfort (inner feelings), interpersonal relationships, and social role performance (at work or school). Questions on the YOQ-45.2 are posed to acquire information about the person's anxiety, depression, suicidal thoughts, substance abuse, and relationships with family and conflicts with others. The instrument contains 45 items, scored on a five-point Likert scale. The instrument is written on a fifth grade reading level. The questionnaire can be administered orally and therefore can be completed by telephone for follow-up purposes. The questionnaire can be completed in five to ten minutes. Test scoring and interpretation is straight-forward and can be completed in minutes. The YOQ 45.2 produces three subscales (Symptom Distress, Interpersonal Functioning and Social Roles), a Total Score, and indices of substances use, suicidality, and violence. The higher the scores, the more problems that the person is experiencing.

Normative groups include community and school samples, and outpatient clinic samples. Research has shown that there is no correlation between age and the YOQ 45.2 score, therefore the norms are not age referenced. Test-retest reliability for the YOQ 45.2 ranges from .78 to .84 with an internal consistency ranging from .71 to .93. Its validity is supported by high correlations with other measures of psychological distress, interpersonal functioning, and social roles.

A Quality of Care Questionnaire was developed and was completed by the students and their parents before the eighth session and after the terminating session.

Program Limitations and Concerns

Ethics were of ultimate concern in this program. Graduate students are not professional counselors and therefore it must be stated clearly that these providers are limited in experience and education. A Statement of Professional Disclosure (Appendix B) not only made this clear to the parents but also gave information about the university supervisor. Students were supervised by a doctoral level licensed professional. Supervision was via videotape. A Consent to Videotape (Appendix C) was signed by the parents. The novice nature of the providers (graduate students) was important when assigning children to counselors. The supervisor had to make sure that the presenting problem was one with which the provider could work. The supervisor took special care to view the videotapes of the first several sessions in order to best determine if the counselor was able to deal with the problems brought forth in the counseling sessions. Face-to-face supervision, supervisor and child, and/or parent was also practiced. Counselors were trained using empirically validated treatment modalities and only these protocols were used.

The need for confidentiality is very important and is a central element in counseling. For this reason, only essential personnel were extended information about the counseling. Releases of information were signed by parents and a statement about the need for confidentiality was signed by each person who was to have access to the information.

As a university based program, practicums are only sixteen weeks in length. Therefore, practicum students were limited to approximately sixteen sessions with each child. It is important to note that many of the children needed more counseling than what sixteen sessions provided. Therefore, a different counselor was assigned to the child. This posed a delay in accomplishing treatment goals due to the child's need to establish a therapeutic alliance with each new counselor.

Finally, rural public schools have limited space available. Finding suitable space to conduct counseling sessions was problematic. Not only was the need for privacy a must, but a place free from distractions was essential. Also the counseling room had to be large enough to accommodate a video camera and tripod. It was difficult to obtain these requirements in the offices provided by the schools. However, once the school officials were made aware of the need for rooms with these characteristics, most schools were accommodating.

Initial Program Data Results

Data was collected from the thirty five public school students who participated in the program. The students were administered the YOQ 45.2 following the eighth session and again, following termination. The results indicated that there were significant differences in the subscales (Symptom Distress, Interpersonal Functioning, Social Roles and Total Score) between the intake and eighth session. Additionally, there exists a significant difference between the intake and terminating session. A preliminary conclusion was drawn that rural public school children did experience improvement while in counseling with master's level graduate students.

Discussion

This collaborative program appears to have initially met some of the needs of both rural school districts and a small regional university in terms of providing supportive services to students in need and a field opportunity for graduate students that, otherwise, could not have been experienced. This particular program attempted to help meet the

emotional/behavioral needs of children that would not have been addressed because of the unavailability of service providers in the rural areas of this state. It is hoped that this particular program can be refined and implemented with other outlying school districts to offer supportive counseling and evaluation services where none have been available before.

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Appendices

Appendix A

Memorandum of Understanding

This Memorandum of Understanding is intended to delineate the responsibilities inherent in a collaborative effort between Cameron University's, Center for Attentional Studies (CAS), Department of Psychology and Human Ecology and Lawton Public Schools (LPS) to provide LPS with emotional disturbance (ED) evaluations and provide Cameron University's Master's of Science in Behavioral Sciences graduate students with experience and education in performing ED evaluations.

Responsibilities of Cameron University (CAS)

Cameron University will provide graduate students who have completed at least six hours in tests and measurements and are screened to be competent and sensitive to children's issues. Graduate students will be supervised by a licensed mental health provider holding a doctoral degree in Counseling Psychology. These graduate students will have individual liability and will be under strict supervisory guidelines.

Graduate students will be enrolled in Practicum in Psychological Testing (PSYCH 5573) for both the Fall and Spring semesters. For the first three months of the Fall semester, students will undergo instruction in the criteria for Emotional Disturbance, state generated literature, and educational and psychological tests required to determine if students meets the criteria for Emotional Disturbance. The remainder of the Fall semester will be dedicated to graduate student observation of test administration, scoring and interpretation, and report writing. In the Spring semester graduate students will begin to administer, score and interpret tests, and write reports. It is expected that each graduate student will produce approximately five evaluations by the end of this experience.

Lawton Public Schools (LPS)

Lawton Public Schools (LPS) will provide a place for testing and the students with referrals for evaluation. Additionally, LPS will transport children to and from the testing center. For each case, the following signed and completed documentation will be needed. A copy of each form is provided in the addendum. (1) Professional Disclosure for the supervisor-instructor and students, (2) information and agreement form, (3) consent to treat/test minors, and (4) release of confidentiality from parents to LPS. Additionally, parents and teachers will have to provide information about the child's behavior, developmental course, and school performance by way of the following questionnaires: (1) Child Behavior Checklist (Parent Report Form), (2) Child Behavior Checklist (Teacher Report Form), (3) Developmental History, and (4) Bio-Psycho-Social Questionnaire. Other parent and teacher information may be needed depending on preliminary test results.

Ricardo A. Jerez, Ph.D.

Appendix B

Statement of Professional Disclosure

I am required by law to furnish this document to you. It is required that I inform you about my professional training, orientation/techniques, experience, fees and credentials. I am not a licensed professional. I am a Graduate student at Cameron University under the direct supervision of a Doctoral level licensed professional. I have had extensive training in tests and measurement, and in the process of involved in evaluating for emotional disturbance. I am enrolled in a Testing Practicum at Cameron University. There will be no fees for the evaluative services.

My supervisor is Ricardo A. Jerez, Ph.D., who is a Licensed Professional Counselor. His license number is 1423. He has conducted evaluations and assessments for children since 1993. He is a professor of testing and evaluation courses at Cameron University and is also in private practice. He has extensive experience in conducting psychological evaluations in school districts in southwest Oklahoma. Since my supervisor is licensed by the

Oklahoma State Department of Health, you can access the law and regulations which govern his license at the licensing website www.health.state.ok.us/program/lpc/. You may contact (without giving your name), my supervisor and/or the Professional Counselor Licensing Division at:

<u>Oklahoma State Department of Health</u>	<u>Ricardo A. Jerez, Ph.D., LPC</u>
<u>Protective Health Services</u>	<u>Cameron University</u>
<u>Professional Counselor Licensing - 0504</u>	<u>Department of Psychology & Human</u>
<u>1000 NE 10th Street</u>	<u>Ecology</u>
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<u>email: newaw@health.state.ok.us</u>	<u>Fax: (580) 581-2623</u>
	<u>Email: ricj@cameron.edu</u>

Practicum Students _____ Signature: _____
providing services:

_____ Parent's
_____ Signature: _____

Practicum Student's _____ Child/Adolescent's
Signature: _____ Signature: _____

Appendix C

Consent to Audio/Videotape

I give permission to audio/videotape the counseling sessions. I understand that these tapes are confidential and will only be used by the examiner and the clinical consultation team for consultation and clinical supervision. I understand that the tapes will not be utilized for any other purpose and will be erased upon completion of the counseling agreement.

I have read the above and have had an opportunity to ask any questions I may have. I agree to allow the videotape and the use of the videotapes for the above stated reasons.

Child/Adolescent's Signature

Parent/Guardian Signature

Witness Signature

Witness Names (please print)

Date

Belva C. Collins, Ph.D.
Dept. of Special Education and
Rehabilitation Counseling
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USING VIDEO STRATEGIES TO TEACH FUNCTIONAL SKILLS TO STUDENTS WITH MODERATE TO SEVERE DISABILITIES

The use of videotapes as an educational tool has become commonplace in educational settings. In recent years, two techniques for using videotapes have been gaining recognition in special education settings. In video modeling, teachers use videotapes to demonstrate tasks for students. The student can watch the task performed by another individual (known or unknown), the student can watch the task as it would appear if the student performed it by him or herself, or the student can watch his or her own performance completing the task. In addition to performing tasks, videotapes also can be used to show a student modeling appropriate behavior. In video prompting, the videotape only is shown to the student when the student needs assistance. The advantage is that the videotape can be started and stopped as needed to allow the student the opportunity to imitate the video model when the student does not know what to do next. Systematic instruction is an effective way to teach new skills to students with disabilities. Systematic instruction includes response prompting procedures, such as graduated guidance, most to least prompting, least to most prompting constant and progressive time delay, and simultaneous prompting (Wolery, Ault, & Doyle, 1992). These strategies have been shown to be both effective and efficient in teaching functional skills to students with moderate disabilities. Because students make few errors with these strategies (typically less than 20%) and only receive the amount of help they need when they need it, students experience success. The examples cited in the following paragraphs come from studies that teachers conducted during the instruction of students with moderate disabilities in classroom settings as part of their certification coursework in a university teacher preparation program in Moderate/Severe Disabilities. Each of the teachers conceived the idea for using videotapes within the context of systematic instruction to teach functional skills listed on the IEPs of their students and made the videotapes with little or no assistance.

As described by Branham, Collins, Schuster, and Klienert (1999), Teacher I taught three community skills to 3 secondary students with moderate disabilities. The skills were (a) cashing a check, (b) crossing a street, and (c) mailing a letter. The videotape that she shot herself showed a peer without disabilities performing the three tasks. She prepared the videotape for instruction by inserting still frames in the videotape. The resulting videotape showed a peer performing each step of the task analysis separated by 10-s intervals of still frames. During daily sessions, each participating student, one at a time, took a videotape of the target task to a room adjoining the life skills classroom and watched it with the teacher. Using a constant time delay (CTD) procedure, Teacher I presented the videotape in the following manner. On the first day of instruction, the student watched a videotaped model of the entire task as the teacher described each step. Using a 0-second response interval, the student immediately repeated each step after the teacher. On all subsequent days, the teacher used a 3-s response interval, asking the student what they would do first in the task and then waiting 3 seconds for the student to respond while the videotape showed a blank still frame. If the student answered correctly, the teacher praised the response as the tape showed the step. If the student answered incorrectly or failed to respond, the teacher prompted the student to watch the step on the videotape as she described it and then waited for the student to repeat what she said. The teacher then asked, "What's next?" and repeated the procedure for the next step until the student finished watching the videotape of the entire task. In addition to teaching with the videotape each day, Teacher I also practiced some of the skills in classroom simulations with the students. Whether or not they received additional instruction during classroom simulations, Teacher I took the students on Community-Based Instruction (CBI) each week to practice the skills at two or more post offices, banks, or streets. During classroom simulations and during CBI, the teacher gave each student the opportunity to perform his or her target task, again using the CTD procedure. As with the videotape, the teacher waited 3 s for the student to perform each step of the task before verbally prompting the student if they did not know what to do. The only difference was that students watching the videotapes only had to verbally state the task while students had to watch the teacher's model and physically perform the task during classroom simulations and CBI. Each student mastered their targeted task in 4 to 7 instructional sessions. Teacher I concluded that the use

of a videotape with the CTD procedure in combination with classroom simulations and CBI was an effective and efficient way to teach the target task. In particular, use of the videotape allowed the teacher to conduct instruction on community skills even on days when she did not have time to conduct classroom simulations and go on CBI.

In a study by Norman, Collins, and Schuster (2001), Teacher II taught three self-care skills to 3 elementary students with moderate disabilities. The target tasks included (a) cleaning sunglasses, (b) putting on a wristwatch, and (c) zipping a jacket. With assistance from a technology expert at a university, she shot the videotape of each skill from a subjective viewpoint so each student could view the skill performed on the videotape as they would see it when they performed it themselves. The final videotape showed a preview of each task from start to finish and then videoclips of each step of the task separated by 15-s still frames. The directions for each step were printed on the videotape as each step was shown, accompanied by a male or female voice stating the steps. Each day, the students sat in a circle around the television with their materials in front of them. They all watched the preview together. Then, using a CTD procedure, Teacher II presented the videotape in the following manner with each student, one at a time. On the first day of instruction, using a 0-second response interval, the student immediately performed each step with the videotape. On all subsequent days, the teacher waited 5 s for the student to initiate a step and 15 s for a student to independently complete a step while the still frame showed on the videotape. If the student performed the step correctly, the teacher praised the response, forwarded the videotape, and waited for the student to attempt the next step. If the student performed the step incorrectly or failed to respond, the teacher prompted the student by having the student watch the step performed on the videotape and then waited for the student to imitate the video model. If the student still performed the step incorrectly, the teacher paused the videotape and physically guided the student through the step before continuing. The teacher then asked, "What's next?" and repeated the procedure for the next step until the student finished the task. Once a student in the group reached criterion of 100% correct independent responses for one day, the teacher dropped the initial preview of the task. Two of the students mastered their targeted tasks in 19 to 30 instructional sessions. The third student mastered one of the skills in 31 sessions (zipper) and required a few modifications to master one of the other skills (glasses). Modifications included being reinforced for independent responses only (not prompted responses) and engaging in massed trials to practice difficult steps prior to attempting the entire task. Teacher II concluded that the use of a videotape with the CTD procedure was an effective and efficient way to teach the target tasks. In particular, use of a videotape in a small group format allowed the students to watch each other receiving instruction and performing the tasks in addition to viewing the videotape model.

In a subsequent study by Graves, Collins, Schuster, and Kliener (2003), Teacher III taught three food preparation tasks to 3 secondary students with moderate disabilities. The tasks included (a) cooking noodles on a stove, (b) making macaroni and cheese in a microwave, and (c) making a peanut butter and jelly sandwich on the countertop. With assistance from a technology teacher in her school and his students, she shot the videotape of each skill from a subjective viewpoint. The final videotape showed a preview of each task from start to finish and then videoclips of each step of the task separated by still frames. The directions for each step were printed on the videotape as each step was shown, accompanied by a male or female voice stating the steps. Each day, the teacher taught the students one at a time in the kitchen of the life skills classroom. Each student, in turn, stood in front of a television placed on the countertop and watched a preview of the target task. Then, using a CTD procedure, Teacher III presented the videotape in the following manner with each student. On the first day of instruction, using a 0-s response interval, the student immediately performed each step with the videotape. On all subsequent days, the teacher gave the student 5 s to independently initiate a step and 20 s to complete the step. If the student performed the step correctly, the teacher praised the response as she forwarded the tape. If the student performed the step incorrectly or failed to respond, the teacher prompted the student by having the student watch the step on the videotape and then waited for the student to imitate the video model. The teacher asked, "What's next?" and repeated the procedure for the next step until the student finished the task. All of the students mastered their targeted tasks in 7 to 12 instructional sessions. Teacher II concluded that the use of a videotape with the CTD procedure was an effective and efficient way to teach the target tasks. In particular, she found that the students were motivated to learn the skills from the videotape and generalized them to their homes where they were able to prepare similar foods with similar materials during their summer break.

As described by Webster, Collins, Towne, and Smith (2003), Teacher IV took advantage of her student teaching experience to teach skills with videotapes to 2 students with disabilities in each of two settings. In the elementary setting, she taught a self-care skill (i.e., zipping a jacket) to 2 students with autism. In the secondary setting, she taught a domestic skill (i.e., folding a towel) to 2 students with moderate disabilities. To make the videotape, the supervising teacher videotaped the target students performing the target task with physical assistance from Teacher IV. This allowed the students to see themselves successfully modeling the task before receiving instruction. In both settings, Teacher IV combined video modeling with instruction using a system of least prompts (SLP) procedure in the following manner. At the teacher's request each day, each student watched the videotape showing them being prompted to perform the target skill. When the videotape ended, Teacher IV told the student it was time for them to practice the skill just viewed on the videotape. She then waited 5 s for the student to initiate and 10 s for the student to complete the first step. If the student performed it correctly, she praised the student. If the student failed to respond within the set time or began to perform the step incorrectly, Teacher IV gave the first prompt from a hierarchy of prompts by telling the student what to do. If the student still could not perform the step, she modeled the step. If the student still needed assistance, she offered physical guidance. Teacher IV repeated this process for each step of the chained task. By the end of Teacher IV's student teaching experience, all of the students mastered or showed progress on their targeted tasks and seemed to enjoy tasks taught with a video model over tasks taught with SLP alone. The addition of the videotape was inexpensive and took little time each day for viewing.

The following guidelines are offered for teachers who are interested in using videotapes in the systematic instruction of students with disabilities. The first step of any instructional program is to *select a target skill*. It should be one that is functional, or immediately useful and meaningful, to the student. This can be done by conducting an ecological inventory (Browder, 2001) of activities needed in a student's daily environments (community, school, home, leisure, or vocational settings). Each of the teachers described in this article selected skills from the students' IEPs that had been generated through an ecological inventory approach and interviews with parents. Chained tasks (those made up of a series a sequential steps) are well-suited to video instruction.

The second step is to *construct a task analyses*. This can be generated by watching a videotape of a task as it is performed. It is preferable, however, to construct the task analysis first, since this provides a script for taping and ensures that the camera will be focused so as to catch the performance of each step on tape. The best way to construct the task analysis is for the instructor to perform the task and either write down or dictate to a scribe or tape recorder the steps as they are performed. Following the ecological inventory approach, the steps should follow the format in which students will need to perform them in their natural environments. For example, Graves et al. (2003) noted that the microwave and measuring cups in the home of a student differed from the microwave and measuring cups used in the classroom setting and adaptations had to be made to make them similar (i.e., placing stickers to mark correct times and measurements). Once the task analysis is constructed, the teacher may use it to edit the videotape (e.g., insert still frames between steps, add visual print or audio descriptions of steps to the videotape). In addition, the task analysis will be used as a data collection sheet to monitor progress once instruction begins.

The third step is to *determine the viewpoint of the videotape*. The instructor has three options in selecting the viewpoint of the videotape. First, the instructor may wish to videotape a person performing the task who can do it fluently and serve as a good role model. While this can be another adult, using a same-age peer (especially one viewed as having "high status") may be more motivating to a student as a peer may be perceived as someone whose behavior they want to model. Second, the instructor can videotape the skill from a subjective viewpoint, allowing students to see the task performed as it will look when they perform it themselves. This has the advantage of allowing students to check their progress against the videotape (e.g., hands correctly placed on jacket to engage zipper) and allowing close-up shots that show fine details (e.g., labels written on cooking products). If videotaping the task while performing it is cumbersome, the instructor may want to have an assistant videotape over the instructor's shoulder as the instructor performs the task. The third choice is for the instructor to videotape the student performing the task. This may be motivating to students because it allows them to see themselves being successful. Because the student has not yet learned the task when the videotape is made, the instructor will need to prompt the student through the task (e.g., give verbal directions, model the task, or physically guide the student through the task). Again, an assistant who can do the videotaping may be desirable if the instructor is busy providing prompts.

The fourth step is to *shoot the videotape*. The best part of shooting a videotape is that the instructor can rewind and retape when errors occur. Also, the finished videotape can be viewed immediately to see if it is satisfactory. In spite of this, the instructor or the assistant who does the taping needs to be well-acquainted with the task analysis and should determine in advance if the entire task will be taped without stopping or if each step will be individually taped. For some tasks, it makes sense to stop the tape during downtime (e.g., waiting for water to boil on the stove). While even an amateur can make a videotape that can be used effectively during instruction, help often can be found within the school setting. For example, Teacher III received videotaping assistance from the instructor of a video class in the school where she taught. For some tasks, a tripod can be used to provide stability. For others, a hand-held camera will allow the instructor to zoom in at angles that best show the performance of a task. In addition, the instructor may want to add an audio description of each step as the videotape is shot.

The fifth step is to *determine if the videotape should be edited*. Once the videotape is shot, the instructor must decide how it will be viewed by the students. Again, there are three options. First, the instructor can show the task in its entirety and then allow the student to perform it. For some students, this is adequate. Students can be given the option of watching the videotape several times before attempting the task or of returning and rewinding to steps they need to view again as they perform the task. Second, the instructor may want to edit the videotape to show individual steps with a pause between each so the student can perform each step as it is viewed before seeing the next step. Inserting still frames in the videotape saves the instructor from having to be present to stop and start the videotape between steps. This works well with systematic prompting procedures, such as time delay. Third, the instructor may want to have two copies of the videotaped task, one that is shown in its entirety as a preview and one that is divided into steps with pauses to be viewed as the task is performed. Teachers who have editing skills and access to the necessary equipment may be able to edit their own tapes. Others may seek the assistance of those who have experience, such as the instructor of a video class. In addition to editing, the instructor also will want to determine if graphics or audio should be added. While not necessary, such cues may facilitate learning of the target task while encouraging the learning of related skills, such as learning to read the words that describe the steps of the task.

The sixth step is to *select the instructional procedure*. The advantage to systematic instruction is that it allows students to experience success while only receiving the amount of help they need as they learn a new skill. There are several systematic instructional procedures that have been shown to be effective in teaching students with disabilities. For example, Teachers I, II, and III used a constant time delay procedure, in which they allotted a uniform interval of time for the student to attempt to perform each step of the task before they used the video to prompt the student. If the student knew what to do, they performed the step and moved on. If the student did not know what to do, they waited until they viewed the step performed on the videotape before continuing. Teacher IV used another systematic procedure, the system of least prompts. After having students watch a preview of the task, she gave them the opportunity to perform it and only interrupted the student with a prompt when they student did not know what to do next. When she prompted, she began by using the least intrusive prompt possible from the hierarchy (verbal direction) and only moved to a more intrusive prompt (model or physical guidance) when necessary for the student to respond correctly. Another procedure that teachers might pair with video instruction is the simultaneous prompting procedure. With this procedure, the teacher would begin each session by asking the student to perform the task. If the student is unable to complete the task, the teacher would then ask the student to complete the task while watching the video. This process would continue until the student could perform the task with viewing the videotape.

The seventh step is to *decide who will operate the videotape*. Each of the teachers used as examples here controlled the operation of the videotape player. This allowed them to ensure that the student was ready for instruction and attending before starting the videotape. It also allowed the teacher to pause, rewind, or fast forward the videotape, as necessary, during instruction. It is possible, however, that some students with disabilities may have the skills to operate the videotape player themselves. If this is the case, it would free up teacher time. For example, the teacher could ask the student to first watch the videotape alone and then join the student when they are ready to perform the task they have viewed. Other students may have the skills to pause, rewind, and fast forward the videotape independently and, thus, perform the task while watching the videotape without the assistance of the

teacher. Teachers also should consider sharing the videotape with parents in order to encourage generalization of the skill to the home setting.

The eighth step is to *determine the data collection schedule*. The teacher will want to monitor progress by collecting data on student performance. If the teacher is involved in daily instruction with the videotape, the teacher can monitor at that time. If systematic instruction is used, the procedure will dictate the type of recording procedure. For example, a teacher using a constant time delay procedure would record whether the student responded correctly or incorrectly before or after the prompt on each step of the task. A teacher using a system of least prompts procedure would record the level of assistance the student needed to perform each step (e.g., independent, verbal, model, physical). A teacher using a simultaneous prompting procedure would record whether or not the student performed each step correctly during test or probe trials but would not have to record data during videotape trials. If the student views the videotape and performs the task without teacher assistance, the teacher could record data periodically (e.g., once per week). Regardless of the method or scheduling for collecting data on performance, the teacher should attempt to collect data periodically in the natural environment (e.g., community, home) to ensure the student can perform the task in the setting where it will be needed. For example, Teacher I collected data during CBI each week, and Teacher III asked parents to collect data in the home over the summer break.

The ninth step is to *determine the teacher's role in delivering consequences*. During initial learning of a new task, feedback is important. When students perform a step or task correctly, they need to be reinforced. This could be verbal praise from the teacher as well as natural consequences, such as getting to consume a food item they have prepared. Likewise, when students make errors, they also need feedback, especially if watching the video model does not result in a correct response. In this case, the teacher may want to intercede and help the student perform the correct response before allowing them to proceed. For example, when students made errors, Teacher II physically guided students through difficult steps before allowing them to proceed with viewing the videotape. In providing consequences, teachers may want to consider exposing students to other nontargeted information that is beneficial (Collins, Fetko, & Land, 2002). For example, after a student prepares a food product, the teacher could praise the student and state information about the product (e.g., low in fat, contains beneficial vitamins).

Based on the four examples described here, it is clear that the use of videotape can be effective in the instruction of skills with students with moderate mental retardation. In particular, there are specific advantages in that the use of videotapes can free up teacher time, can facilitate generalization to the real world, can be motivating to students, and can be replayed repeatedly. Since most classroom teachers have access to video cameras, video players, and televisions, the cost of production of a simple videotape can be inexpensive. Using the guidelines suggested here and using the cited examples as a beginning for finding ways to use videotape, teachers should explore using videotape with systematic instruction in teaching skills to students with moderate disabilities.

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STRENGTHENING RURAL SCHOOLS: TRAINING PARAPROFESSIONALS IN CRISIS PREVENTION AND INTERVENTION

What is a Crisis?

A crisis is an event or situation that creates "...a temporary state of upset and disorganization, characterized chiefly by an individual's inability to cope with a particular situation using customary methods of problem solving..." (Slaikue, 1990, p. 15). Bottom line, the emotional and physical demands created by the crisis exceed the available resources. Because of the school's sense of community, a crisis in the context of a school "brings chaos," that "undermines the safety and stability of the entire school" (Johnson, 2000, p. 18).

Need for Immediate Intervention

In 1976, a busload of 26 children in Chowchilla, California was hijacked by three masked men. Taken to an isolated location in the desert, the children were transferred into a trailer in a ravine and covered over with dirt. The children remained in the buried vehicle until they were rescued 27 hours after being abducted. After returning home, the focus was on the physical condition of the children. Much to the relief of parents and school officials, the children appeared to be physically unharmed. However, in a follow up four years later, Terr (1983) reported that these children continued to experience significant anxiety and post traumatic stress as a result of the incident. Terr explained that the children's emotional difficulties were most likely related to the lack of immediate crisis intervention for emotional trauma following their rescue.

During and following a crisis, there is a great need for immediate emotional first-aid. After the 1942 Cocoman Grove fire in Boston, which claimed the lives of almost 500 people, Eric Lindemann (1944, 1979) noted that immediate intervention with the survivors facilitated the grieving process and recovery. Individuals from various backgrounds, including physicians, emergency medical technicians, nurses, mental health professionals, clergy, and community volunteers, assisted with this emergency.

Although these examples are extreme in nature, there was a difference in outcome based on the type of immediate care provided to survivors. Emergency mental health services provided to the Cocoman Grove survivors and their families made a significant impact on their recovery process. The long-term effects of the tragedy were greatly reduced due to the immediate mental health care that was provided (Lindemann, 1979).

Specific types of crises affecting the school community include suicide, school shootings, gang activity, natural disasters (earth quakes, hurricanes, floods, tornadoes, etc.), drug abuse, grief and loss, sexual and physical abuse, and medical emergencies (Brock, Sandoval, & Lewis, 2001; Johnson, 2000; Pitcher & Poland, 1992). These crises, directly or indirectly, threaten the security and stability of the school community and tax the available resources.

Rural Schools and Crisis Intervention

Providing crisis intervention in a rural school district poses unique challenges. Some of the obvious difficulties are related to the lack of services in rural communities, more specifically limited access to medical facilities and mental health programs. Frequently rural America is synonymous with poverty and subsequently a lack of funding

to cover community resources often available in urban settings. There has been a continual shortage of doctors, nurses, emergency medical services, mental health professionals and police/law enforcement to assist with the everyday needs in rural communities. These shortages are especially evident in the event of a community or school related crisis.

In addition to limited financial resources and community services, the distance between rural schools and students' homes poses another challenge to consider when preparing crisis intervention plans. Because bus routes cover many miles and often treacherous winter road conditions, more responsibility is placed on bus drivers to be trained for emergency situations. During a crisis, the isolation of rural schools and the distance from sources of help creates a greater need for the school to be self-sufficient in meeting students' immediate emotional and physical needs. There is a need for all adults in the rural school setting to be prepared and ready to assist with basic crisis intervention skills. An emergency supply of food, water, and medical supplies is of paramount importance. A backup energy source is also needed, particularly for schools in colder climates.

Who Will Help?

The major responsibility for crisis intervention falls upon local and district school leadership. Although certain employees in the school such as the school counselor, school psychologist, and social worker are typically seen as the trained mental health personnel who deal with crisis situations, it is unrealistic to think that these few individuals could realistically meet the needs of hundreds of students during and following a crisis. Following a crisis, professionals and groups outside the school frequently step in and offer assistance. If the tragedy or crisis is featured in state or national news, national experts are often readily available. Even though this outside help is well intentioned, school administrators are often hesitant about depending on "outsiders" for assistance during critical times of crisis (Johnson, 2000; Poland, Pitcher, & Lazarus, 1999). Outside professionals may have difficulty fitting in and understanding the rural school culture. Although well meaning, these professionals may be perceived as intrusive and over-reactive. Unfortunately, outside assistance may add to the confusion and increase the stress of an already difficult situation. The expert status of outside help may also foster feelings of inadequacy in the school's staff (Weinberg, 1989).

Although outside professionals and, in cases of more catastrophic events, national organizations such as Red Cross and FEMA may offer assistance, logically schools should train and prepare adults within the school, particularly those who are familiar and work directly with students. Ideally all adults in the school should be trained and involved in crisis intervention (Brock et al., 2001; Rouf & Harris, 1988; Smead, 1991). With appropriate training, each adult can support students and intervene immediately to offer emotional first-aid.

Brock et al. (2001) state that a crisis plan "is useless without personnel capable of conducting crisis interventions" (p. 52). Although training for crisis intervention is typically geared toward school counselors, school psychologists and administrators, this presentation is designed to address the basics of teaching basic information of "what to say" and "what to do" to all adults in the school. In particular paraprofessionals are identified as an untapped resource of support during a crisis.

Who are Paraprofessionals?

Public schools in the United States serve over 46.8 million students and employ approximately 2.9 million teachers and 621,000 instructional aides in the classroom (Bairu, 2001). These instructional aids, often referred to as paraprofessionals, are a vital link to the instructional process. Paraprofessionals deliver services to the increasing number of students served in special education, Title I programs, Head Start, and Bilingual or ESL/ESOL programs (French & Pickett, 1997; Morgan, Ashbaker, & Allred, 2000; Vasa, Steckelberg, & Ulrich-Ronning, 1982).

Paraprofessionals in the school cover a wide variety of support positions including teaching assistants, custodians, cafeteria workers, secretaries, and bus drivers. Paraprofessionals interact with students in the classroom and outside the classroom, in the cafeteria, in the hallways, on the playground, on the bus, and during unstructured times before and after school. In these less structured settings, paraprofessionals have opportunities to nurture and listen to students who might have difficulty talking with a counselor or teacher (Johnson, 1998). French and Pickett (1997) state that as school administrators and professionals become more aware of paraprofessionals' contributions,

greater efforts will be made to build upon their natural skills and their untapped potential. This is particularly true in the area of crisis prevention and intervention.

Paraprofessionals and Crisis Intervention

In planning for crisis intervention, the unique contributions of paraprofessionals should be considered. Paraprofessionals typically live in the community. Their children or grandchildren typically attend the school. Because paraprofessionals know the families in the community, they are able to provide a familiar and comfortable support for students and families. Because they speak the language and know the history of the area, they are able to provide both a linguistic and a cultural continuity between the school and the community (Ashbaker & Morgan, 2000; Pickett, 1989; Rubin & Long, 1994).

Training paraprofessionals to participate in crisis prevention and intervention will increase the number of adults prepared to assist, improve communication and teamwork, and create a sense of community and ownership in the school's crisis intervention plan. Ultimately these benefits strengthen the school's support for students and families.

Crisis Plan

Paraprofessionals need to be familiar with the very basic ingredients of crisis intervention. It is important to have a plan. What does a crisis plan do? A plan specifies and organizes people and resources. It defines duties and specifies lines of authority. Having an effective plan reduces panic and chaos. A plan instills confidence. In defining a plan we anticipate "What if" and define "Then this."

Crisis plans must be realistic and tailored to the resources of the individual school setting. The plan must be user friendly, assessable, familiar to all, and flexible enough to adapt to the school's changing needs. The basics of the plan must be posted in each classroom. All must be familiar with the plan for when and how to exit the building and where to meet outside the building. All must be familiar with securing the classroom: locking doors, closing windows, placing students in a safe location in the classroom away from windows and doors. Additionally, it is recommended that all adults in the school become first aid certified through Red Cross in order to meet the physical needs of injured students.

Crisis Team

A crisis team is composed of individuals organized and prepared to work together and carry out the designated duties listed in the crisis plan. Because each duty requires varying levels of "responsibility, availability, and ability," it is important to carefully consider both the individual's capacity and the requirements for the duty (Allen & Ashbaker, in press). An effective crisis plan is dependent on all members of the team and all parts of the plan working effectively to ensure the safety, security, and stability of the school. Each adult in the school should be assigned a duty that is optimally related to their daily job responsibility.

Personal Competencies

Flexibility, capacity for compassion, and resilience are essential personal characteristics in individuals who are effective in meeting the needs of others in crisis (Red Cross, 2002). When an adult adapts to the changing demands and needs during a crisis they are able to function more effectively. It is also important for students to sense a caring attitude and to feel supported and nurtured the adults.

(1) The biggest rule in providing crisis intervention is to remain calm. This is especially important when assisting children, who look to adults for stability during times of crisis (Johnson, 2000). All adults must hold to the crisis plan and do what he/she is assigned to do, follow directions from leadership, and cooperate with others.

(2) Although a person assisting with crisis intervention must show compassion, concern, and respect for others' situations, they must maintain appropriate boundaries. It is important not to over-react and become so involved with the victims that the adult loses perspective and is not able to be an effective helper.

(3) Those assisting with crisis intervention must be able to function adequately during the chaos and stress. It is important that they are also able to recuperate after the crisis. The adults provide a model of resilience for the students.

Potential Red Flags

When preparing paraprofessionals to assist with the school crisis team, be aware of potential red flags. Some behaviors or attitudes that may need to be addressed include the following: seeks hero status, defies authority and leadership, resists team efforts, ignores limits and guidelines, uses inappropriate or insensitive humor to relieve tension, starts or feeds rumors, resists feedback, lacks empathy, and overreacts or lacks emotional stability. In assigning duties, these factors need to be considered. Additionally some adults may not have the physical stamina to handle the emotional stress and the physically challenging aspects of crisis intervention.

The manual for the Red Cross Disaster Mental Health Training (2002, p. 61) lists two questions that may be helpful in screening some of the potential problems associated with individual personalities and characteristics.

- (1) "Describe a situation in which you experienced stress and were unable to change the situation. How did you handle the stress?"
- (2) "You might be exposed to some very distressing scenes. How will you cope and continue to perform duties?"

Tailoring the Training

Prior to initiating a training program for crisis intervention, it is important to determine the training needs. It is important to consider the individual's past experiences with crisis intervention, their knowledge of crisis intervention skills, and their level of confidence in handling an incident.

(1) Their experiences with crisis may be very personal and recent or more removed, such as familiarity with an event effecting a distant friend or relative. Experiences with crisis will have a carryover effect on how the individual will react to the new crisis situation. The common statement "The best prediction of future behavior is past behavior" also holds true with the paraprofessional's capacity to intervene and assist during a new situation.

(2) The paraprofessional's knowledge of crisis intervention may include previous training, job experiences, life experiences, reading magazines or books, and information gathered from television or videos. It is important to assess the quality and accuracy of this knowledge.

(3) The paraprofessional's level of confidence is most likely related to their previous experiences and their level of knowledge and skill. It is also important to remember that an individual may have varying levels of confidence dependent on the type of situation. For instance some may be very confident in handling emotional issues, but not confident in handling physical injuries.

Teaching the Skills

Crisis intervention skills can be taught in a variety of ways: lecture, including facts and theories; readings or handouts; role play, scenarios, and practice; watching video clips that demonstrate skills; and on-the-job-shadowing of crisis team member. However, the most effective teaching method, based on the authors' experiences, consists of using role plays. When using role plays, follow these steps: (1) set up a scenario, (2) model appropriate behavior, (3) set up another scenario, (4) ask the paraprofessionals to role play & practice skills, (5) share feedback, (6) process information, and (7) problem solve. If necessary, set up several scenarios to role play so that the basic steps are practiced and learned. Allow time for small group discussion about the role plays.

Lecturing is usually not very effective in helping paraprofessionals learn crisis intervention skills. When teaching crisis intervention skills, seeing the skills is better than hearing about the skills. Short video clips provide interesting scenarios and promote discussion. (Make sure that video clips are approved by the school administrator.) Popular movie clips provide a resource of both bad and good examples. Commercial training videos, although more expensive, are also a valuable resource. Refer to the handout for a list of suggested video clips.

What to Teach

Basic topics that should be taught to paraprofessionals include the following: basics of the school crisis plan; a clear definition of their role in the crisis plan; how the various roles and responsibilities fit together; specifics of what to do; basic communication skills, particularly how to listen, and how to respond; the basics of what to say; problem solving skills; and limits to their helping ...when and how to refer to a school professional. Additionally, it is recommended that all adults in the school become first aid certified through Red Cross in order to meet the physical needs of injured students. At the very least a core group in the school should be trained with these life saving skills.

It is important to focus on the topics of suicide prevention and dealing with and preventing violence/aggression. A heavy emphasis should be placed on prevention. "At the very least, all school personnel should be aware of basic signs of depression and anxiety in students" (Prevention Division of the American Association of Suicidology). It is important to identify at risk students and to know the steps in referring them to a professional for help. These students may form a bond with a paraprofessional and see this person as a caring adult, but may have difficulty talking with a teacher or a counselor. It is important to take all threats seriously. Again, it is important for the paraprofessional to know who to report concerns to and how to report the concerns. It is important to give accurate, honest information. Most importantly, paraprofessionals should know the risk signs, how to react, what to say, and what to do. The referral process should be in writing, very clearly stating the protocol and leave no room for confusion

In working with potentially violent and aggressive students, paraprofessionals should know how to prevent and diffuse tense situations (refer to handout). They should know the basics of stress management and relaxation skills. School rules regarding bullying and harassment should be strictly enforced because these low level forms of violence feed into more severe acts of school violence. School violence is more likely to occur in "unowned" areas such as dining areas, hallways and parking lots (Astor, Meyer & Behre, 1999). Prevention should include placing paraprofessionals in locations to offer a higher level of supervision, increasing the number of adults greeting students as they enter the school and creating a welcome atmosphere. An "attitude of caring" within school community has been found to be an effective preventative measure (Hansen & Childs, 1998). Paraprofessionals can be part of the leadership in encouraging a comprehensive approach to violence reduction."

Summary

Paraprofessionals are often an untapped resource in schools. Particularly in rural school districts, where medical and mental health services are limited, paraprofessionals can learn basic crisis intervention skills in meeting the immediate needs of students. They can also support preventative efforts, particularly in the areas of suicide prevention and reducing school violence. Training all adults to assist with crisis intervention in the school will increase teamwork, strengthen unity, and provide students with a more supportive and caring environment.

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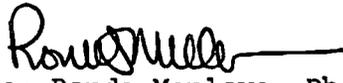
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