A CROSS CATEGORICAL APPROACH TO SERVICE DELIVERY
Promoting Successful Inclusion Through Teacher Education

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Schools in the United States and schools across majority of countries around the world today face two critical issues: 'Inclusion of students with disabilities in general education classrooms' and a contributing factor to success of this inclusion, teachers prepared to use best practices. 'Best practices' in education are approaches to teaching, programs used with students, classroom procedures followed, teaching strategies used, and methods incorporated that may have consistently produced good reliable results and reported as such in literature. This paper describes best practices used in university setting to prepare teachers to use these best practices and follow a cross-categorical service delivery approach in general education classrooms with students with special needs, in resource room setting, and/or self-contained special education classrooms.

Introduction

Schools in the United States and schools across majority of countries around the world that follow policy of inclusive schooling face two critical issues: '*Inclusion* of students with disabilities in general education classrooms' and a contributing factor to the success of this inclusion, 'teachers prepared to use best practices'. This paper is an effort to help pre-service (future) and in-service (current) teachers implement instruction using best practices in general education inclusive classrooms, resource rooms, or self-contained special education classrooms.
Westwood (1997) stated that the policy of inclusive schooling has evolved gradually from the 'integration of children with special needs' movement of the 1970s and 1980s. Inclusion movement gained momentum since the Salamanca Statement in 1994 (UNESCO: 1994 as cited in Rao, 2005; Rao & Fancher, 2005) that recognized necessity and urgency of providing education to all children, young people, and adults within the regular education system. It stressed that children with special education needs must have access to regular schools.

Discussion

In the United States a catalyst for inclusive movement was the national movement originally known as the Regular Education Initiative (REI) of the 1980s (Choate, 2004; Mastropieri & Scruggs, 2004), which gave impetus to serving at-risk students, culturally diverse students, and students with disabilities in general education setting. Vaughn, Bos, and Schumm (2006) described REI as a concept that promotes placement of students with disabilities in the general education classroom for all or most of the school day. The authors posited that separation of general and special education services restricts the use of funds and limits educational opportunities available to *al*l children; too many students are identified for special program and these students' needs can be met in general education classrooms. Individuals with Disabilities Education Act (IDEA) 2004 called for inclusion of students with special needs, needs arising due

to disabilities, giftedness, linguistic differences, and/or belonging to disadvantaged and nomadic population, not only in regular education system but in *regular education classrooms* to the maximum extent possible. One way of meeting needs of all children in general education classrooms and consequently, reducing number of children identified to receive special education is to provide appropriate and timely intervention and instruction to *all students* in general education classrooms.

This paper describes a course delivery approach in a university classroom that utilized *best practices* to prepare graduate students/teachers to use a cross-categorical service delivery approach in general education classrooms using best practices, to promote successful inclusion in general education classrooms, or use a cross-categorical approach in resource rooms and special education classrooms. A cross-categorical approach considers students' instructional needs and not disability-specific needs (Haager & Klingner, 2005). Specifically, the objectives are to describe a course delivery approach that can be used to prepare teachers for cross-categorical approach for successful inclusion of students with diverse needs in general education classrooms, or use a cross-categorical approach in resource rooms and special education classrooms; describe cross-categorical approach and benefits of the approach; describe best practices such as interdisciplinary themes and instruction, grouping strategies including pairs, small, and large group instruction; collaboration and co-teaching; theory of multiple intelligences; Bloom's taxonomy; standards-based planning; computer mediated support and use of assistive technology; describe a format that can be used to plan a unit, and describe format for lessons that incorporates Gardner's multiple intelligences and Bloom's taxonomy. Additionally, the paper also provides information on some useful Websites and a list of activities that can be incorporated by teacher educators in classrooms.

'Best practices' in education are approaches to teaching, programs used with students, classroom procedures followed, teaching strategies used, and methods incorporated that may have consistently produced good reliable results and reported as such in literature. The instructor incorporated *best practices* (process) in college teaching to teach *best practices* (product) to students who planned *units of instruction incorporating these best practices* (process) that lead to *teachers (product) prepared to use cross-categorical approach* (process). This would in turn lead to prepared (expected product) co-teachers/teacher consultants in general education classrooms for successful inclusion or teachers prepared to use cross-categorical approach in resource rooms or in special classes (expected product). (Figure 1 represents the "processes and the products" of the course. See Figure 1 at the end of article.)

According to the U. S. Department of Education (2002) there has been a 28.4% increase of students since 1991-92 school year served under the different labels/categories. Students ages 6 through 17 with disabilities made up 11.5% of the estimated student enrollment for grades prekindergarten through 12th grade. About 95% of students with disabilities are educated in regular schools and about 75% of these students are educated in general education classrooms. Diversity in today's classrooms (general education inclusive classrooms and special education classrooms) may encompass intellectual differences; communication differences; sensory differences; behavioral differences, including children with emotional and behavior disorders or have severe social maladjustment problems; multiple and severe handicapping conditions, individuals with mental retardation and physical/motor or sensory disabilities; and physical

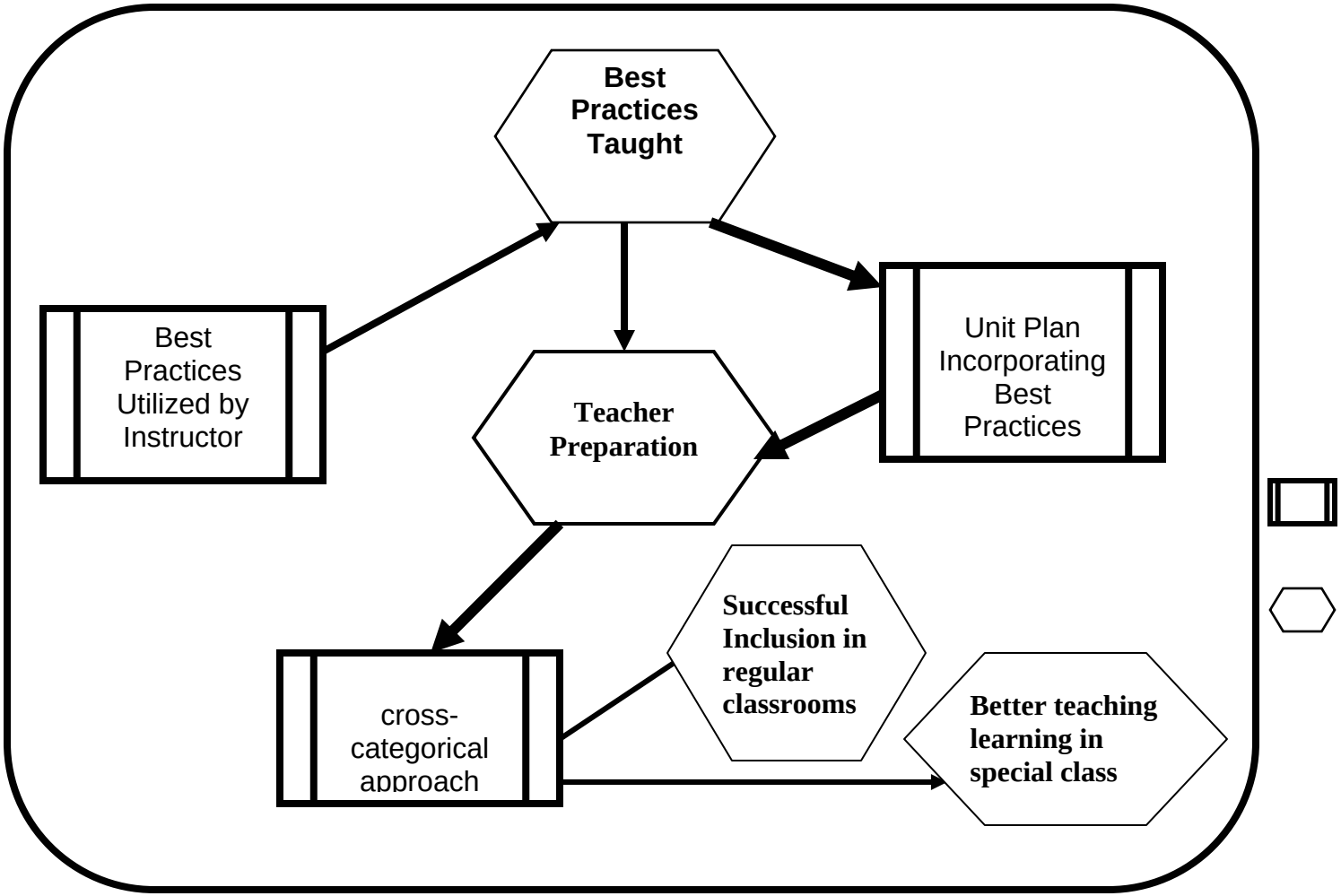

Figure 1 Processes and Products

differences, that include mobility problems and health needs. In Today's special education classrooms teachers who may have been certified to teach a particular disability area (for example, behavior disorder, learning disability, behavior disorder) teach students with different category labels. Haager and Klingner (2005) attributed this to the fact that the number of new special education teachers has not kept pace with the number of new classrooms.

A solution to meet this diversity and a balance between teachers and classrooms can be a *cross-categorical approach* to service delivery adopted by schools. Also referred to as non-categorical, multi-categorical, mixed-ability special education classroom (NEA: NEA IDEA Brief, 2004) in this approach students are grouped according to their instructional needs rather than their disability labels. Thus, teachers also can focus on instructionally relevant needs of their students (Haager & Klingner, 2005). Given a need for a cross-categorical approach to service delivery in both general education classroom and special education classroom setting, it is imperative that our teachers are prepared to provide this approach using best practices in education. Wheldall (as cited in NEA: NEA IDEA Brief) stated 'by allowing students from several different categories to come together, teachers are more likely to view students as individuals with particular instructional needs, rather than a category of learners who may or may not meet certain expectations for learning' (p. 1). Moreover, according to Haager and Klinger a strict categorical approach is believed to result in fragmented programs and services.

Many educational needs of students that receive 'special education' and educational needs of students with learning problems, who do not 'qualify' for special education are similar. These views have been expressed consistently in literature since the early 80s (Reynaolds, Wang, Walberg; Stanovich; Yesseldyke, Algozzine, Shinn, McGue as cited in Haager & Klingner, 2005) who posited that educational needs of high-incidence disabilities (learning disabilities, behavior disorders, and mild mental retardation) may be similar to other students with learning problems. With appropriate support (such as instructional and personnel) students with high incidence disabilities and low incidence disabilities (sensory differences) can be taught in general education classrooms. Gifted students are unchallenged and are underachieving is also a concern cited in literature (Clark; Cohen; Tomlinson as cited in Noble, 2004). The authors posited that appropriate support extended to general education also benefits students with extra gifts and talents by helping them reach their potential.

Best Practices Incorporated During Course Delivery in University Setting

"Becoming an excellent college teacher is a continuing, life-long professional challenge, the dimensions of which often go unrecognized. In the general mind, doctors and lawyers are professionals; teachers are not" (Drummond, 2002). The authors posited we could change our semi-professional status if we could agree upon a list of best practices and help one another achieve them. Listed were twelve practices that included: lecture practices; group discussion triggers such as for example, case studies; thoughtful questions; reflective responses to learner contributions; rewarding learner participation; active learning strategies; cooperative group assignments; goals to grades connections; modeling; double-lop feedback; climate setting; and fostering learner responsibility. Each item on the list had further pointers. There is support in literature for these and other methods used in university and college classrooms: case studies (Berg, 2004), cooperative learning projects (Audette, 2004), portfolios, active learning, and case

studies (Bowers, 2005), reflective responses to learner contributions (Dunlap, 2004), poster presentations (Hollander, 2002), and organized lecturing (Stunkel, 1999).
The course taught was a graduate level 3-credit hour course entitled Curriculum and Instruction in Special Education offered as part of MA in Special Education program at large Midwestern University in United States. Students enrolled were early childhood, elementary, middle school, and high-school level teachers who had a general education teaching endorsement and were all on a temporary approval to teach special education classes. They were all working on their first endorsement in cognitive impairments, learning disabilities, or emotional impairments and MA degree in special education.

Best Practices Taught

In developing their units the instructor "walked the talk" by first providing instruction in seven different best practices described below, modeling them by weaving these seven best practices through the twelve practices Drummond (2002) recommended for college teachers, and then required students to incorporate these best practices in their thematic units and other assignments. Various 'best practices' utilized included:

- Interdisciplinary Themes and Instruction
- Grouping Strategies including pairs, small, and large group instruction
- Collaboration and Co-teaching
- Theory of Multiple Intelligences
- Bloom's Taxonomy
- Standards-based Planning
- Computer Mediated Support and Assistive Technology

All these instructional practices have been described in literature as successful in meeting diverse needs of students in classrooms. A brief overview of each of these best practices follows.

Interdisciplinary Themes and Instruction: Interdisciplinary thematic units have a proven advantage of helping teachers (Foster as cited in Jenkins 2005; Meinbach, Rothlein, & Fredricks as cited in Vaughn et al, 2006) to motivate students, help learn a given topic in great breadth and depth through connections made between different subject areas, and prepare students for the real world as they are able to see a connection between real life and school. The concept of interdisciplinary thematic units--instructional activities that are thematically meaningful, structured, and organized across curriculum areas--provides teachers an opportunity to guide the study of critical components in the curriculum (Gardner, Wissick, Schweder, & Smith-Canter, 2003). Salend (2008) described how interdisciplinary themes can link the various science and social studies disciplines, and also relate them to other subject areas.

Cooperative Learning Groups*:* In a classroom with diverse abilities and needs various grouping structures such as whole class, small groups, and pairs can be utilized to maximize student engagement and learning. In particular, 'cooperative learning groups' has a wide research base (Lewis & Doorlag, 2006; Haager & Klingner, 2005; Salend, 2008; Vaughn, et al, 2006; Wood, 2003) that endorses positive outcomes due to the three important components of cooperative learning groups: positive interdependence, individual accountability, and face-to-face interaction.

***Collaboration and Co-teaching**:* With appropriate support (special educators to co-plan /co-teach and disability-specific supports) students with high incidence disabilities and low incidence disabilities (sensory differences) can be taught in general education classrooms.
In cross-categorical approach used in special education classrooms collaboration and co-teaching between special education teachers and a paraprofessional or a teacher assistant may be a key to success of all students. *Preventing* students from placement in special education, *promoting effective schools* through collaborative planning due to collegial relationships, and *coordinated instruction* where teachers and professionals sharing students' educational responsibility exchange knowledge about effective practices are the three main advantages of collaboration according to West and Idol (as cited in Vaughn et al., 2006). Friend and Cook (1996) described co-teaching as a process, whereby two or more professionals collaborate to share responsibility in three important processes involved in teaching: planning, teaching, and evaluating. Co-teaching in inclusive classrooms provides much needed direct support to students with disabilities and support for teachers in terms of co-planning, co-teaching, and co-assessing.
Beirne-Smith, Patton, and Kim (2006) described four forms of collaboration: collaboration-consultation (general education teacher requests services of special education teacher to help generate ideas for addressing an ongoing situation); peer support system (two general education teachers work together to generate ideas); teacher assistance teams (teams that include special educators provide assistance to general education teachers); and co-teaching (general and special education teachers work together to provide service to students).

***Theory of Multiple Intelligen**ces:* In 1983, Howard Gardner in his book Frames of Mind proposed theory of *multiple intelligences* (MI) which suggested that human beings can express intelligence and understanding in seven different domains: linguistic, logical mathematical, bodily kinesthetic, spatial, musical, interpersonal, intrapersonal. He later added an eighth domain, naturalistic. Using multiple intelligences enables teachers to meet individual needs and learning styles of students using the strengths of students in their preferred domain. The theory of multiple intelligences can also be incorporated in tiered assignments to evaluate learning by giving learners options or alternative avenues to demonstrate their learning using preferred domains and strengths; through art, music, drama, poetry, performance portfolios etc. instead of the traditional pencil and paper tests only (Rao, 2005).

***Bloom's Taxonomy**:* Incorporating Bloom's Taxonomy of educational objectives (Bloom & Krathwohl, 1956) is yet another way to address multiple abilities of students in a cross-categorical service delivery approach both in regular education classrooms and special education classrooms. The taxonomy, hierarchical organization of teaching objectives from the most basic recall level to the highest evaluation level involving critical thinking has widely been acclaimed in literature (Gray, 2002; Kastberg, 2003) as a vehicle to both teach and assess understanding of students with diverse abilities and needs. Other levels in the hierarchy are comprehension, application, analysis, synthesis, and evaluation.

Standards-Based Planning: In United States the No Child Left Behind Act of 2001 which was signed into law in January 2002 ensures that all students meet the required state standards. Both Individuals with Disabilities Education Act (IDEA) mainly P. L. 105-17 (IDEA 1997) and the more recent 2004 IDEA, P.L. 108-446 require that all students with disabilities be assessed using

state assessments. According to Hoover and Patton (2004) current emphasis on teaching and assessing standards requires educators to possess knowledge and skills to differentiate standards-based education to successfully meet diverse needs in the classroom. A standards-based curriculum the authors posited offers direction as to what students should learn and requires emphasis on three inter-related areas: content standards--subject area skills and knowledge; performance standards--proficiency levels required; and opportunity to learn standards--materials, strategies, and structure necessary for successful learning to successfully teach and adapt a standards-based curriculum for students with learning and behavior problems (Glatthorn; McLaughlin & Shepard; Quenemoen, Lehr, Thurlow, & Massanaair as cited in Hoover & Patton, 2004). Kirschner (2004) also supported this view and stated that from Goals 2000, to curriculum standards, to Elementary and Secondary Education Act (ESEA 2001) legislators, policymakers, business leaders, and educators have proposed that standards-based reforms and increased accountability will provide every student with a quality education.

Computer Mediated Support and Assistive Technology: A variety of hardware and software resources can be used to enhance educational performance of all students. Computer technology according to Foshay and Ludlow (2006) is not just a passing fad but is rapidly becoming an integral part of everyday life (p 101) and the notion of assistive technology is congruent with computer-mediated support. Assistive technology was first defined in the "Tech Act" or Technology-Related Assistance for Individuals with Disabilities Act of 1988. However, one of the main barriers to use of technology with students can be lack of knowledge of available resources and knowledge of nature of support these resources can provide to students. Bryant and Bryant (2003) provided a comprehensive listing of various vendors and useful web links for assistive technology devices, hardware, and software.

As the main requirement for the course students planned and developed thematic units in groups of four (collaborative teaming). All students received details of assignment for their unit (see Figure 2, Unit Plan Details) and a template to plan the units (see Figure 3, Unit Plan Overview). Different best practices taught converged in planning of thematic units where students in turn incorporated the practices in their lessons aimed at delivering a cross-categorical approach in classrooms.

Units Planned Incorporating Best Practices

Unit Plan Guidelines

Except for the lesson plans, all other components will be a group effort.

A. Description of unit (template will be provided)

B. A matrix incorporating Bloom's taxonomy and Gardener's multiple intelligences to include students with different abilities in a classroom (http://www.cap.nsw.edu.au/teachers/tech_based_resources/MI_pages/INDEX.M)

Please cite this reference in unit plan if this site is used for planning unit plan.

C. Eight lesson plans, **two per group member,** with two lesson plans for reading, two for content areas (social studies, science), one for behavior management, two for math, and one for writing. Please note that these lesson plans will be elaborate plans for a lesson that could be carried out over an extended period of period of time, not necessarily for 30 minutes, 50 minutes, or for a block of 60 minutes period.

Requirements of each lesson plan: (See template provided)

- Each lesson plan will have three main parts: **Part I,** General Plan that will include: subject/content area, topic of the unit, a rationale for choice of the topic,

duration of the lesson, content standards addressed, broad goals, performance indicators or short term objectives, materials needed, and assessment planned for the lesson.

- Part II will be the Procedure planned to carry out the lesson and will include

name(s) of the strategy/strategies used, citation, and brief explanation of the strategy example, purpose (choose strategies from 'strategies file prepared). This section will also include an anticipatory set, guided, independent practice and possible accommodations, modifications**. M**atrix planned incorporating the eight multiple intelligences across the six levels of Bloom's taxonomy may be referred to plan this part

- Part III Evaluation will form another important part of lesson plan.

Detailed plan of evaluation will include necessary rubrics for the lesson and materials prepared.

D. Presentation of the unit in groups**:** Gallery Walk

All groups will put up a creative display of their units in the form of posters. Groups will present their units collaboratively. Points will be awarded for creativity, neatness, technology use, and active participation from all members.

Figure 2: Unit Plan Details

Group Members:
Topic/Theme:
Level & Grade:
SECTION I: **Unit Summary:** **Unit Learning Outcomes:**
SECTION II: **Targeted Content Standards:**
SECTION III **Instructional Foci:**
SECTION IV: **Printed Materials/Supplies:** **Internet Resources: (web resources that support implementation of the unit)**
SECTION V: Others: (Field trips, guest speakers, mentors, volunteers, budgeting for any of these)

Figure 3: Unit Plan Overview

Under *section I* 'unit summary' groups had to write a brief overview of the unit planned with a rationale for choosing that particular theme. The section also required groups to explain in brief broad goals and objectives the unit hoped to achieve through the theme for the targeted grade level. Groups had to maintain a balance between skills and understanding that needed to be achieved through the unit. Posner and Rudnitsky (2001) emphasized the importance of these two components and differentiated between "understanding" (*knowing what*- concepts, facts, principles, ideas etc.) and skills (*knowing how*- including reading, arithmetic, problem solving,

analysis etc.). The next section, *section two* was 'targeted content standards' where groups had to state how the unit goals and objective planned helped meet state education standards. With the passage of No Child Left Behind (NCLB) act in 2001 all schools in United States need to ensure that curricula planned in schools/classrooms help all children meet the educational standards set by the states. Groups as such had to justify how these goals and objectives related to content standards under different topics and also benchmarks. Content standards describe what students should know and be able to do in different subject areas. The benchmarks included under content standards further clarify and specify what students at elementary, middle, and high school levels should do and provide indicators for students to demonstrate knowledge specified in different subjects under the content standards.

Under *section III* of the unit groups had to describe various *instructional foci*, the means to an end (Posner & Rudnitsky, 2001) that would be used to achieve the outcomes of the unit which had to be targeted toward the content standards and benchmarks at that particular level. These are the course-related (in this case the unit-related) experiences that would help students achieve the targeted outcomes. Examples would include related field experiences, role-plays, guest speakers, small and large group or cooperative group projects and experience, debates, experiments, and presentations to name a few. The next section, *section four* of the unit included planning of different resources for the unit including materials and supplies, and internet resources that would be needed for the instructional foci. The final section of the unit plan, *section V* described planning resources in greater details such as for example, places to visit for the field trips, planning for the trips including budgeting; details of guest speakers, different software needed and budgeting for the software.

Within their unit plan students were required to plan of lesson under different subject areas to make it a thematic unit. A total of eight lessons (see Template for Lesson Plans, Figure 4) under different subject areas such as math, language arts, social studies, science had to be planned. Most 'best practices' that were used in lecture sessions described in earlier section of this paper were incorporated in planning of the lessons.

Step 1, 'general plan of lesson' was based mainly on the main unit; the additional component was the 'assessment' part. Under step two, 'detailed procedure and method' strategies used for the lessons were research based and were put together by the groups as part of a separate assignment. For this assignment groups had to compile a total of sixteen different strategies under math, language arts, science, social studies, study skills; problem solving skills, social skills, behavior management, and classroom management and incorporate these strategies in their lessons. Groups had to present any two strategies of their choice to whole class in a 'co-taught' lesson format incorporating co-teaching models and technology.

STEP # 1 : GENERAL PLAN OF A LESSON	
Teacher:	Grade Level:
Subject/Content Area:	Topic:
Rationale:	
Duration of Lesson Planned:	
Content Standards Addressed:	
Goals (Broad Goal): Aims/Outcomes	
Objectives: Performance/ Behavioral Indicators	
Materials: Aids/AV/Technology	
Assessment: Assignments to Measure Progress Assessment/Feedback	
Specific Plan for Co-teaching:	

STEP #2: DETAILED PROCEDURE / METHOD
Strategy/Strategies Used:
Introduction: (Anticipatory Set): *Focusing Event*
Development:
Modeling/Explanation Demonstration
Practice: Guided/Monitored Activity and Independent Practice
Accommodations/Adaptations: Differentiated Instruction using 'multiple intelligences' across Bloom's taxonomy
Closure: Wrapping it up

STEP #3: EVALUATION AND TEACHER REFLECTION
Evaluation: comments on student Performance
Teacher Reflection: Self-evaluation of lesson

Evaluation: Comments on student performance
Teacher Reflection: Self –evaluation of lesson

Figure 4: Lesson Plan Template

The most important aspect of planning lessons was planning for different needs of students (cross-categorical approach) using the revised Bloom's taxonomy and Gardner's multiple intelligences grid by Ralph Pirozzo (New South Wales Country Areas Program, 2005) to plan the unit and lessons. Figure 5 presents a sample lesson entitled "Choosing a Geographic Location Suitable to Career Goals" for a unit entitled "Life Skills" for 'middle school cross-category classroom' planned by one of the graduate students who was also a teacher. As seen thirty-two boxes from possible forty-eight boxes of the grid were filled utilizing Howard Gardner's eight multiple intelligences and six levels of Bloom's taxonomy of educational objectives aimed at differentiating instruction. Although in this particular example of a lesson (Figure 5) most intelligences and taxonomy levels were incorporated, requirement was for groups to try and incorporate as many levels as possible across as may of the eight intelligences as possible. The lesson planned was aligned with the State content standards and benchmarks, provided a viable way of differentiating instruction to accommodate needs and levels of students. It provided avenue for knowledge to be displayed and assessed in multiple ways. It incorporated all of the best practices that were delivered in my classroom: interdisciplinary themes and instruction; grouping strategies; collaboration; theory of multiple intelligences; Bloom's taxonomy; standards-based planning; and computer mediated support and technology. (See Figure 5 at the end of article)

Case studies at elementary middle, and high-school levels from Haager and Klingner (2005), a required text for the course, were discussed individually and in pairs. Questions based on cases related to instructing and including students in general education classrooms using appropriate assessment, planning, adapting and modifying content and assessment, progress monitoring, and evaluating student learning and teacher planning.

As the semester progressed students used grids to plan and carry out daily lessons in their classrooms. Having implemented such planning in their classrooms provided impetus for group discussions in my class, within their own groups, and in general, an enthusiasm to generate more ideas for lesson plans and activities. The class of twenty-four students was divided into six cooperative learning groups. The units they planned were for preschool level, elementary level, middle school level and high schools level. The themes planned included 'pumpkin', 'apples', 'self-esteem', 'life-skills', 'American revolutionary', and 'civil war'. Groups presented their units on poster boards on the last day of class. The course delivery as such incorporated the twelve best practices for college teachers (Drummond, 2002) while teaching students seven more best instructional practices that the students then incorporated in their interdisciplinary thematic units.

Seven Ways to be smart	**Bloom's Taxonomy: Six Thinking Levels**					
	Knowing	**Understanding**	**Applying**	**Analyzing**	**Synthesizing**	**Evaluating**
Verbal **I enjoy reading, writing & speaking**	Select three cities in which to live.	Summarize information about your career choice.		Determine which city would best support your career.	Plan a presentation of your data.	Defend your choice with at least three pieces of evidence.
Mathematical **I enjoy working with numbers & science**	What is the ANNUAL MEDIAN SALARY for your career in this city?	How many more people of your gender than not in each city?	Prepare a Chart showing the differences in the salary ranges in each city.	Determine whether salary pays your bills and leaves you some "extra?"	Construct a chart of your data.	Decide using "Net Paycheck" in each city, which would be your best choice?
Visual/Spatial **I enjoy painting, drawing & visualizing**	Color the states in which cities are located.	Explain where each city is located graphically within the U.S.		Categorize your data according to its importance to making your choice of city.		
Kinesthetic **I enjoy doing hands-on activities, sports & dance**	Print a blank outline map of the U.S. and attach to presentation board.	Group information from each city in its own area on the presentation board.			Use color, pictures and headings to makes your data stand out.	Take a virtual tour of cities using internet and make a chart to rank cities
Musical **I enjoy making & listening to music**	Identify the last time your favorite artist played in each city.			Classify each city based on its likelihood to host your favorite artist.		Rank each city based on which artists might play there.
Interpersonal **I enjoy working with others**	Share the city in which you would most like to live.		Interview classmates who have been to your cities.	Designate each city as "Culturally" or Economically rich after presentations.		As a group vote on the best place to live and work.
Intrapersonal **I enjoy working by myself**	What career are you most interested in?	Define the terms and use them in a sentence of your own.	Use your evidence to persuade classmates to choose your city			Decide which city will best support your life and career
Naturalistic I enjoy working with natural objects patterns	List the natural "amenities" (parks, etc.) in each city		Interview classmates who have been to your cities.		Find and use pictures of geographic features.	Decide which city will best support your life and career

Figure 5 Choosing a Geographic Location to Live
Lesson Planned By Yvette M Rigs, MA (Grid based on 42-Grid Matrix Devised by Ralph Pirozzo, 1997 as cited by New South Wales County Area Program, http://www.cap.nsw.edu.au/teachers/tech_based_resources/MI_pages/INDEX

Concluding Thoughts

This course delivery approach followed was to ensure students working on their MA degree in special education left with skills and competence necessary to meet the diverse needs of students in today's general education classrooms and special education classrooms. In their recent work Hoover and Patton (2004, p. 77) listed two different types of competencies needed by today's teachers in differentiating curriculum and instruction: development competence and implementation competence. The first one included among others such competencies as process of curriculum development; curricular issues; planning according to age, grade, and learning styles; related nature of content, materials, instructional strategies, and instructional settings. The second type, implementation competencies included adopting strategies, materials relevant to student needs; collaboration skills; skills to modify and adapt instruction; cognitive strategies and study skills and their use in curriculum being some of the important skills.

The approach followed to deliver this course in 'curriculum and instruction' helped ensure use of best practices to inform students (teachers) of best practices necessary to differentiate instruction. Teacher educators need to prepare teachers for four broader roles they may be asked to play involving four forms of collaboration: collaboration-consultation (general education teacher requests services of special education teacher to help generate ideas for addressing an ongoing situation); peer support system (two general education teachers work together to generate ideas); teacher assistance teams (teams that include special educators provide assistance to general education teachers); and co-teaching where general and special education teachers work together to provide service to students (Beirne-Smith et al, 2006). Learning how to differentiate instruction to meet challenge of diversity in both general and special education classrooms will ensure schools in the United Sates and across many other countries can face two critical issues: ***inclusion*** of students with disabilities in general education classrooms and a contributing factor to the success of this inclusion, teachers prepared to use best practices.

Further Information

1. The following Website provides excellent examples of Multiple Intelligences and Bloom's Taxonomy grids prepared by teachers. The Website provides details of the contributors of these grids and a link to blank grids developed by Ralph Pirozzo was used in this paper.
http://www.cap.nsw.edu.au/teachers/tech_based_resources/MI_pages/INDEX.HTM

2. The following Website of NICHCY or *National Dissemination Center for Children with Disabilities* is an excellent resource for both general education teachers and special education teachers. The organization takes pride in serving the nation as a central source of information on: disabilities in infants, toddlers, children, and youth; IDEA, which is the law authorizing special education; No Child Left Behind (as it relates to children with disabilities); and research-based information on effective educational practices. http://www.nichcy.org/

3. The following Website provides useful information and further links to many useful Websites on: learning styles, cooperative learning, teaching methods, lesson plans, various educational software and many other useful resources for teaching
http://www.clcrc.com/pages/cl.html

4. The following Website provides examples of many different lesson plans created by teachers in Language Arts, Mathematics, and Science: http://www.col-ed.org/cur/

5. The following Website provides examples of accommodations and modifications teachers can use to accommodate needs of students with special needs. General classroom accommodations, accommodations for math, science and language arts are listed under separate headings.
http://www.resa.net/assistive/accommodations1.htm

6. The following Website provides technology to help struggling students learn to their fullest potential: serving students in PreK-8 who use assistive technology, have IEPs, have limited English proficiency, or need additional instructional support for any reason. It lists products to help teach reading, writing, and mathematics. http://www.intellitools.com/

Professional Development Activities for Teachers

1. Divide class in groups according to type of school (early childhood, elementary. middle school, or high school) they work at. Let them brainstorm their definition and understanding of 'curriculum'. Get each group to present their definitions/explanation of what constitutes curriculum.**2.** Divide the class into two teams. Organize a class debate on pros and cons of inclusion.

3. In pairs or groups of three visit the Website http://www.nichcy.org/ . Get the groups to choose one or two disability areas and make a list of important characteristics and suggested teaching strategies based on these characteristics. Get the groups to present their findings to the class. Get each group to prepare a two-page handout and make copies for the rest of the class.

4. Divide the class into groups so that each group has a teacher working in different school settings such as early childhood, elementary, middle school, and high school. Ask each member to bring a lesson plan they have used in their class. Get the groups to choose two lessons at different levels and make a list of various accommodations and modifications they can use in these lessons to include students with different disabilities. Students can use information from activity 4 above as well as information discussed in class and obtained from Website for accommodations: http://www.resa.net/assistive/accommodations1.htm

5. As in activity 4 above get the students to bring a lesson plan each and then get them to rewrite the lesson plan to: (a) incorporate co-teaching using an appropriate model from

those discussed in class; and (b) specifically utilize the cooperative groups and other grouping strategies discussed in class.

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