

DOCUMENT RESUME

ED 353 378

CE 062 769

AUTHOR McBride, Pamela G.; And Others
 TITLE Creating Custodial Classes: An Instructional Program Guide for Custodial Workers.
 INSTITUTION Southwest Texas State Univ., San Marcos. Center for Initiatives in Education.
 SPONS AGENCY Office of Vocational and Adult Education (ED), Washington, DC. National Workplace Literacy Program.
 PUB DATE 92
 CONTRACT V198A10216
 NOTE 111p.; For related documents, see CE 062 770-773.
 AVAILABLE FROM School of Education/Center for Initiatives in Education, Southwest Texas State University, 601 University Drive, San Marcos, TX 78666; or San Marcos Literacy Action, P.O. Box 907, San Marcos, TX 78667.
 PUB TYPE Guides - Classroom Use - Teaching Guides (For Teacher) (052)
 EDRS PRICE MF01/PC05 Plus Postage.
 DESCRIPTORS Adult Basic Education; Business Communication; Business Skills; *Classroom Techniques; Community Involvement; *Curriculum Development; *Custodian Training; Instructional Materials; *Job Skills; Job Training; *Literacy Education; Program Development; Program Guides; Program Implementation; Reading Skills; School Business Relationship; *Student Evaluation; Writing Skills
 IDENTIFIERS Workplace Literacy

ABSTRACT

This program guide documents a custodial job family curriculum that develops competence in generic work force education skills through business writing/clerical skills and reading and writing courses. An annotated table of contents lists a brief description of the questions answered in each section. An introduction presents a program abstract and a guide overview. The remainder of the guide is structured according to the four stages in the process of setting up a work force instructional program: partnership building, curriculum development, actual instruction, and evaluation. A detailed table of contents to each section outlines the steps involved in completing each stage. The section on developing partnerships identifies some key partners and structures for achieving their involvement. The section on developing curriculum describes some structures for assessing and organizing input from a variety of sources. The section on teaching the class presents a curricular model with specific examples of daily classroom activities. The section on assessment and evaluation describes a variety of assessment tools and discusses their advantages and disadvantages. The conclusions section offers a preliminary analysis of the program's results and summary of program effectiveness. Appendixes include sample course outlines and lesson plans, registration and evaluation forms, and a selected bibliography divided into work force skills (59 items), background theory (47), and practitioner resources (20). (YLB)

Creating Custodial Classes: *an Instructional Program Guide for Custodial Workers*

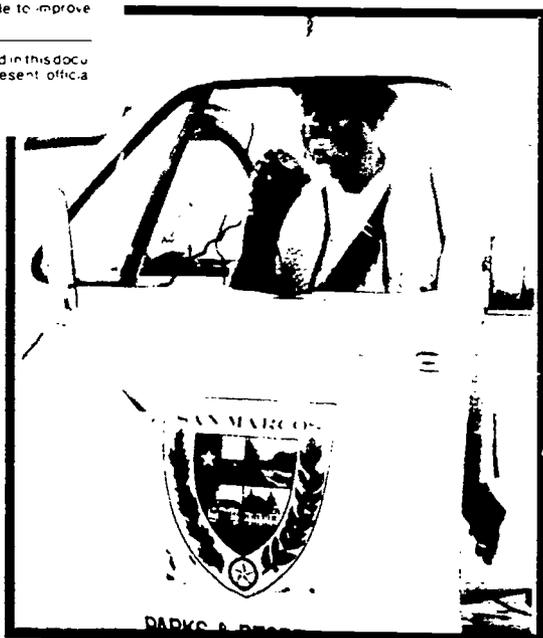


U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

This document has been reproduced as
received from the person or organization
originating it.

Minor changes have been made to improve
reproduction quality.

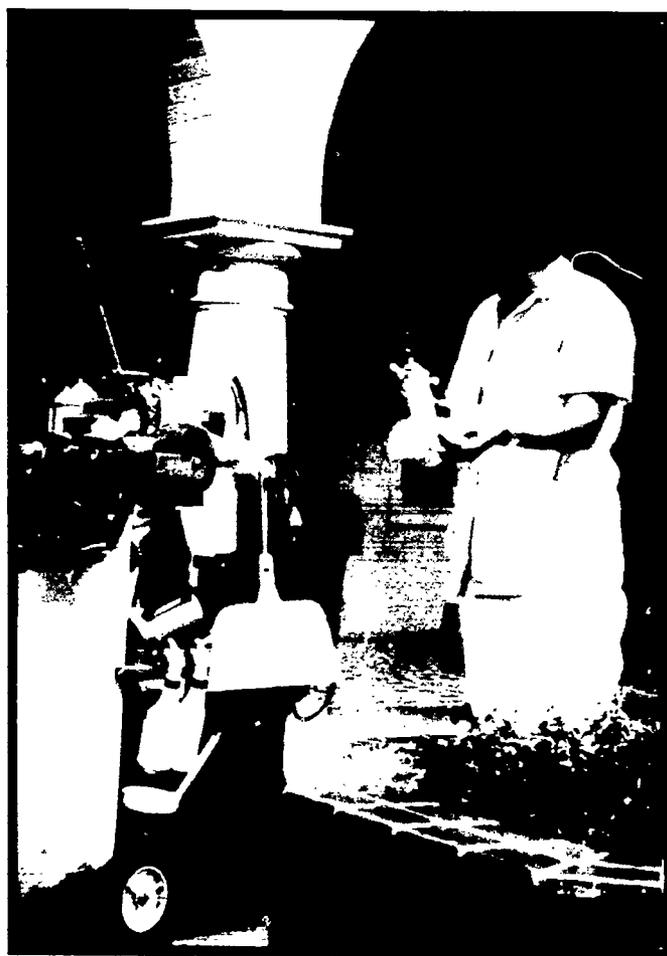
Points of view or opinions stated in this docu-
ment do not necessarily represent official
OERI position or policy.



Workforce Instructional Network

2 BEST COPY AVAILABLE

Creating Custodial Classes: *an Instructional Program Guide for Custodial Workers*



Workforce Instructional Network

Creating Custodial Classes: *an Instructional Program Guide for Custodial Workers*

Pamela G. McBride, M.Ed.

Jonathan C. Engel, M.A.

David C. Caverly, Ph.D.

Series Editor:
David C. Caverly, Ph.D.

Workforce Instructional Network
Center for Initiatives in Education
School of Education
Southwest Texas State University

1992

Contributors to WIN

Stan Ashlock, *Evaluation Assistant*

Mr. Ashlock conducted interviews and observations with workers, teachers, and employers and collected essential information for the outside evaluator. He also helped obtain inter-rater reliability for the qualitative assessment tools and adapted the Daly and Miller Writing Apprehension Scale to a workplace context.

Lisa Bagwell, *Administrative Assistant*

Ms. Bagwell provided administrative assistance such as balancing ledgers, handling correspondence, and purchasing supplies.

Karen Burrell, *Instructor*

Ms. Burrell designed lesson plans and taught courses for the Equipment Operator Job Family. She was responsible for the initial draft of all instructional program guides.

David C. Caverly, *Program Director*

Dr. Caverly initiated the premise of delivering workforce literacy to small businesses in a small city, wrote the grant proposal with assistance from Ms. McBride, and created the WIN Instructional Model. He played a role in the development of the Small Business Literacy Task Analysis, assisted in the development of curricula for all four job families, presented two staff development workshops, assisted in the staff development activities for the Child Care job family. Moreover, he selected some and developed other assessment instruments for all four job families, wrote the "Assessment and Evaluation" section on all four curriculum guides, and served as General Editor for all four instructional program guides.

Jonathan C. Engel, *Project Director*

Mr. Engel ensured that all grant activities were performed effectively and efficiently. In addition to overall supervision, he formed and chaired the WIN Advisory Council, initiated and developed the multiple partnerships in our instructional network, negotiated consensual approaches to achieve stakeholder buy-in, and led focus groups for the purposes of formative and summative evaluation. Mr. Engel wrote the "Developing Partnerships" section of all the instructional program guides.

Dorcas Garcia, *Limited English Proficiency Specialist*

Ms. Garcia conducted bi-lingual classes with workers of limited English proficiency in the Custodial, Manufacturing, and Equipment Operators Job Families. She also conducted staff training in Spanish.

Ann Johnson, *Instructional Coordinator*

Ms. Johnson designed curricula, developed lesson plans, and taught classes in the Child Care Job Family. As instructional coordinator, she trained, and conducted staff development activities for instructors in that job family. She wrote the "Developing Curriculum" and "Teaching the Class" sections of the instructional program guide for this job family.

Margaret L. Johnson, Instructor

Ms. Johnson developed curriculum and lesson plans for the Reading/Writing Improvement course. She taught classes in both the Custodial and Manufacturing Job Families and played a major role in designing the qualitative assessment instruments. She was responsible for the design and layout of all WIN instructional program guides and managed the process of publishing these guides.

Pamela G. McBride, Instructional Coordinator

Ms. McBride designed curricula, developed lesson plans, and taught classes in the Custodial, Manufacturing, and Equipment Operator Job Families. She also developed many of WIN's evaluation forms and played a major role in designing the qualitative assessment instruments for these job families. As instructional coordinator, she trained and conducted weekly staff development activities for instructors in the above three job families. She wrote the "Developing Curriculum" and "Teaching the Class" sections of the instructional program guides for those three job families.

Larry Mikulecky, Outside Evaluator

Dr. Mikulecky of Indiana University is a nationally recognized expert in the field of workplace literacy. He provided valuable insight to WIN staff at critical junctures during the grant period serving as external evaluator. In particular, he provided baseline, formative, and summative program evaluation reports.

Joseph Piazza, Instructor

Mr. Piazza designed lesson plans and participated in planning and evaluation teams for the Manufacturing Workers Job Family. He also taught classes in the Manufacturing Workers and Equipment Operator Job Families and helped obtain inter-rater reliability for the qualitative assessment instruments.

Erma Thomas, Instructor Support Specialist

Ms. Thomas served as a bilingual assistant and substitute instructor in many classes. In addition, she assisted the program by keeping track of registration, attendance, and other student and in-kind support data. She helped obtain inter-rater reliability for the qualitative assessment instruments, and was responsible for compiling, calculating, and verifying a variety of student achievement data for all program guides.

Gayle Slomka, Instructor

Ms. Slomka was an instructor in the Basic Issues in Child Care class and gathered qualitative productivity data for the Child Care Job Family.

Patrice Werner, Curriculum Consultant

Dr. Werner developed curricula, lesson plans, and assessment instruments and taught classes for the Child Care Job Family. She played a major role in designing the qualitative assessment instruments and conducted a staff training on holistic writing techniques.

Lisa Withrow, Instructor

Ms. Withrow was an instructor in the Basic Issues in Child Care class and gathered qualitative productivity data for the Child Care Job Family.

Acknowledgments

WIN would like to thank Margaret E. Dunn, Executive Director, Center for Initiatives in Education and John J. Beck Ed. D., Dean, School of Education, SWTSU for their administrative and moral support as well as their genuine interest in the success of the Workforce Instructional Network.

We would also like to thank the San Marcos Chamber of Commerce, the Hispanic Chamber of Commerce of San Marcos, and all of the employers, supervisors, workers, and members of the WIN Advisory Council for their active participation and interest in workforce education in the San Marcos area. Together, we have demonstrated to each other just how important an educated workforce is to the future of our community.

A special thanks to the staffs of the SWT Physical Plant and the Hays County Independent Consolidated School District.

For more information or additional copies of this guide please contact one of the following:

Dean, School of Education
SWTSU
601 University Drive
San Marcos, TX 78666

Executive Director
Center for Initiatives in Education
SWTSU
601 University Drive
San Marcos, TX 78666

Treasurer, San Marcos Literacy Action
P.O. Box 907
San Marcos, TX 78667

Funds for the development and printing of this publication were provided under Grant V198A10216, National Workplace Literacy Demonstration Grants, U.S. Department of Education

The information presented here is not necessarily endorsed by the State of Texas or the United States Department of Education.

Southwest Texas State University, a member of the Texas State University System, is an affirmative action, equal opportunity educational institution.

© Pamela G. McBride, Jonathan C. Engel, David C. Caverly

Table of Contents

Introduction2

What are this program and this book about? This section presents an abstract of our program and an overview of this guide.

Developing Partnerships6

Who should we contact to begin our program? How can we gather ideas from a variety of sources? Effective workforce education programs depend on collaboration from many sources. This section identifies some key partners and structures for achieving their involvement.

Developing Curriculum23

How do we figure out what classes to offer? What should each class include? How will we identify what students should be in each class? Input from key stakeholders--including educators, workers, supervisors, managers, and funders--is crucial to creating contextualized, participatory instruction. This section describes some structures for accessing and organizing input from a variety of sources.

Teaching the Class32

How do we organize so much information into finite classes? What do we do in the classroom each day? Contextualized, participatory instruction can require some flexible strategies from instructors. This section presents a curricular model, with specific examples of daily classroom activities.

Assessment and Evaluation 39

How do we measure progress? Diverse assessment instruments can be used for a number of purposes. This section describes a variety of assessment tools and discusses their advantages and disadvantages.

Conclusions45

How did we do? Many variables affect a program's success rate. This section offers a preliminary analysis of our program's results and a summary of the effectiveness of the program as a whole.

Appendices.....50

Introduction

Four-part instructional model

Overview of the Guide

Workforce education, as distinguished from job training, emphasizes instruction in learning how to learn because of the swiftly changing nature of the workplace today. Our focus through the Workforce Instructional Network (WIN) was to work with small businesses in a small town to design instruction aimed at improving the literacy skills of individuals currently in the workforce. We accomplished this by forming a partnership between Southwest Texas State University (SWT), the San Marcos Chamber of Commerce, and the San Marcos Hispanic Chamber of Commerce. The success of our project supports the use of a process-oriented education model which emphasizes transferable skills presented in a series of mini-courses from five to fifteen weeks.

In order to develop our curriculum according to an education model, we identified those generic workforce education skills underlying job families rather than concentrating solely on the content knowledge needed for a particular job. Through developing competence with these skills, we hope to have equipped workers for future job changes, many of which cannot even be anticipated in the fast-moving business environment of today. Moreover, these newly developed literacy skills will provide a strong foundation from which the workers can educate themselves given new workforce education demands, resulting in future training savings to the businesses involved. This future efficiency aspect is particularly relevant to small businesses which often rely on on-the-job training by supervisors and co-workers rather than maintaining training staffs.

Never did I think it was going to be up to me to teach my children the ABC's and 123's. Yes, I had five children, and I was only a help to them during their elementary school years. When they reached middle school and high school, I was of no help. Then my graduated husband took over. I was left out of the close ties of helping with my children's education.

Reading/Writing Improvement Student--Bus Driver

Four-part instructional model

A process-oriented educational philosophy formed the basis for our four-part instructional model. The first step in this model involved an initiating event which engaged the prior knowledge of the students, who were considered the content knowledge experts for their jobs. Next, the teacher modeled literacy strategies, using a large-group discussion format, for accomplishing those literacy tasks we were able to identify via a business needs assessment and through student participation. Small groups then collaborated on workplace related literacy tasks which required the use of these new strategies. This small group emphasis developed the communication and teamwork skills which are sought by employers, while at the same time developing students' strategies for accomplishing the workforce education tasks. Finally, learners worked to apply their new understandings during independent practice on workplace and home-related literacy tasks.

Workforce Instructional Network Four-part Instructional Model

In all WIN classes, the basic instructional model contained the following 4 components:

- 1) an **initiating event** or focusing activity which emphasized engaging the learners' background knowledge of the topic to be discussed;
- 2) large-group **modeling** of a learning strategy;
- 3) collaborative, **small-group practice**;
- 4) **independent practice**.

Overview of the guide

In keeping with our process-oriented approach to workforce education, this guide was designed to document our Custodial Job Family curriculum from our two classes for custodial workers. Students in our classes were drawn from the Southwest Texas State University Physical Plant, a school district Physical Plant, and several small businesses in the San Marcos community. These classes can be a model for you since the literacy tasks identified are common to many custodial environments.

Sections of guide parallel stages of project

We conceptualized the process of setting up a workforce instructional program as having several stages: the stages of partnership building and curriculum development before classes begin, the stage of actual instruction, and a feedback and evaluation stages during and after instruction. This guide is structured according to these stages in the life of our grant-funded program.

An annotated table of contents at the beginning of the guide lists a brief description of the questions to be answered in each section. At the beginning of each section, a more detailed table of contents outlines the steps involved in completing each phase of our grant.

Developing Partnerships

Background and context

Write a grant proposal

Learn about the problems of business

Develop a partnership

Implement a community-based workforce education model

Define the mission and connect with partners

Build on existing resources

Reconcile federal priorities with local realities

Demonstrate what for whom

Implement evaluation strategies

Utilize an advisory council

Create a participatory support structure through focus groups

Background and context

The Workforce Instructional Network (WIN) started in May, 1991 at Southwest Texas State University (SWT) through grant (#V198A10216) from the Office of Adult and Vocational Education, United States Department of Education (USDOE) to establish a National Workplace Literacy Demonstration Project for small businesses. This National Workplace Literacy Program arose out of a concern that the U.S. economy was losing its competitive edge in part because the skills of U.S. workers were deficient relative to those of workers in competing nations. In the national discourse about economic competitiveness and the quality of the American workforce, images of workers in huge automobile and steel plants in urban areas predominated. However, 97% of the nation's towns and cities have populations of less than 50,000 people (*Census Tracts*, 1983). Many of them are like San Marcos, Texas, a community that is characterized by a multitude of small businesses and an educationally disadvantaged workforce. This guide is designed to assist practitioners in designing and implementing workforce education programs for small businesses. Since small businesses rarely budget funds for workforce education activities, the guide will start from the assumption that practitioners will seek grant funds, at least for the start-up phase of their workforce education programs.

Write a grant proposal

We began by approaching the two local Chambers of Commerce (San Marcos Chamber of Commerce and the San Marcos Hispanic Chamber of Commerce) for assistance in conducting a general needs assessment of businesses in the community. A preliminary questionnaire regarding business and industry training needs was distributed to the members of the Chambers at one of their monthly meetings. Answers on this questionnaire documented that employers had a general need for increased employee training in a variety of skills. Follow-up discussions with members of the two Chambers at future monthly meetings confirmed the extent of the perceived literacy needs ranging from basic reading, writing, and calculating skills through needs in computer literacy.

To further verify the need for this project, a needs assessment was completed via personal interviews and phone surveys of 20% of the businesses and industries in the San Marcos community. A broad range of the business community including manufacturing, communication, government, education, retail trade, financial, and child care sectors were contacted. Results of this assessment identified over 600 workers in these twenty businesses alone who were in immediate need of basic literacy skills ranging from reading work order forms and filling out quality control sheets accurately to basic mathematical computation skills including fractions, decimals, and percentages, to advanced mathematical computation skills up through algebra, to reading safety memos and warning labels on chemicals, to basic computer literacy, word processing, using disk operating systems, spreadsheets, data bases, and telecommunications. This information demonstrated to us that business owners perceived a need for education for the San Marcos workforce.

Learn about the problems of business

During these discussions with business owners and managers, it was continuously made clear how important it was for us to avoid preconceived notions about their needs and goals. Our early discussions introduced us to different business leaders and provided a forum where we, through active listening, were able to understand some of the challenges each was facing in an increasingly competitive marketplace. We found these businesses were often faced with accelerating rates of change and the need to try new ideas, yet the workforce available to them was poorly equipped to learn new processes and adapt to these changes. Custodial workers, in particular, faced management style changes and new safety regulations. Without exception, business owners did not see massive layoffs and rehiring as an acceptable solution to this dilemma since there were few people in the workforce with greater skills. Businesses also valued the loyalty of their current workers and their job knowledge.

This lack of functional literacy skills wastes the potential of the employee frozen at an entry-level position and unable to move up into more complex jobs. It also creates a hiring bottleneck at the entry-level which harms the employment opportunities of the whole community. Together with the businesses we concluded that in many ways workforce development equals economic development.

Develop a partnership

Based on these discussions and the results of the needs assessment, the proposal development team proposed a partnership between Southwest Texas State University, the San Marcos Chamber of Commerce, and the Hispanic Chamber of Commerce. This partnership developed a model for offering effective job-related literacy and basic skills programs for the multiple small businesses that are the mainstay of the local economy. The guiding concept of the proposed model program was to develop a community-based approach to workforce education. Clearly, it would not be cost effective or logistically feasible to provide instruction to two or three workers at different locations across the community. At the same time, it might be difficult for employers to release workers at the same time to meet at a location in the community.

Our task then was more complicated, or at least different, from *traditional* workforce education programs which are most often partnerships between community colleges and large manufacturers. (Chisman, 1992 ; USDOE, 1992). Our strategy was to develop educational programs for job families, rather than specific workplaces. The job families we served were Custodial, Child Care, Manufacturing, and Equipment Operators.

Implement a community-based workforce education model

An initial WIN objective was to raise community awareness about the need for workforce education. The first step was to establish our position and identity within the community. We had to establish **who** we were, **where** we were, and **why** we were there. This step may appear obvious. Our experience indicated that this was not the case. Although representatives from the business community had been helpful in the proposal development phase, upon funding 12 months later we had to remind them of who we were and why we were seeking their involvement in the project. This situation was further complicated in the interim because the president of the San Marcos Chamber of Commerce who had signed the original partnership agreement had been replaced, and the San Marcos Hispanic Chamber of Commerce had elected an entirely new Board of Directors. In effect our original project partners did not know who we were, where we were, or why we were interested in workforce education. At a recent meeting of project directors sponsored by USDOE, similar stories were reported from around the country. It was therefore recommended that USDOE streamline its proposal review process. Whether this occurs or not, future projects must consider continually informing partners to anticipate changes in personnel.

Define the mission and connect with partners

Our next step then had to be to (re)define ourselves and our mission to our partners and to convince them to *buy in* to the project. Since our program was of benefit to the Chambers' members, but not directly to the Chambers themselves, their support was nominal. They each agreed to place a member of their Board of Directors on the WIN Advisory Council (see below), but they did not play an active role in recruiting employers or in publicizing our services to local employers. Nonetheless, our formal partnership with the Chambers gave us valuable and needed credibility with area employers and facilitated initial negotiations with employers who became active participants in the network.

Despite the limited role that the San Marcos and Hispanic Chambers of Commerce played in the construction of WIN, we would recommend involving such organizations in the development of multi-stranded workforce education initiatives which target small businesses. Specifically, we recommend identifying individuals active in such organizations who have a strong interest in workforce education early on in the planning phase. Meet with them to learn as much as you can about the prevailing perceptions of the preparedness of the local workforce. Among other things, they can help you identify specific employers who are likely to be receptive to your proposed program. Solicit private sector involvement in the development of your workforce education proposal. Such involvement will not only strengthen the proposal, but also facilitate the project implementation process. Working with chambers of commerce and other trade organizations is particularly critical to the success of community-based approaches to literacy development. Such organizations are instrumental in the articulation of the local economic development strategy, and the quality of the local workforce is always a critical component of any such strategy. Let them know you are capable of enhancing the skills of

local workers and, with them, determine which sectors of the local workforce are currently considered most critical to the economic vitality and quality of life of your community.

"It's allowing everyone to voice things that they think are uncertain. It's allowing people to realize that they're not stupid for questioning things. It's okay to say 'Why?' or 'How?' or 'What?' I think it's important to let everybody voice their uncertainties"

-Belenky, Clinchy, Goldberger, Tarule

Women's Ways of Knowing

The position which the WIN staff decided to establish was that of a community-based workforce education initiative which would raise awareness of the need for job-related literacy instruction across the private and public sectors and concentrate the knowledge and resources of multiple employers, employees, educators, and community representatives on the problem of workforce and community development. From the onset, WIN staff advocated the development of literacy programs that would be flexible enough to meet the needs of multiple workplaces. This was important to establish because it was not cost effective to customize workforce instruction for a particular small workplace that might only have had two or three workers who would participate. Furthermore, the WIN staff wanted to demonstrate that workforce instruction could be contextualized to a set of proficiencies common to a particular job family rather than a particular workplace. Such an approach was the foundation of our model of workforce education for small businesses and should be of critical interest to other literacy practitioners interested in working with small businesses.

Build on existing resources

A second and equally important reason for choosing a community-based approach to workforce education was the existence of a strong community-based literacy initiative already in San Marcos with which most of the WIN staff had been associated previous to implementation of this project. Building upon existing resources strengthens the community effort and minimizes duplication. San Marcos is a community that has a significant adult literacy problem.

Several organizations were addressing this problem prior to the establishment of the WIN project. The San Marcos Public Library has a very active literacy and General Educational Development (G.E.D.) degree preparation program in place. In addition, various community agencies had combined efforts and resources to establish a family literacy program in a public housing complex and to enhance existing programs in order to meet the requirements of the Job Opportunities and Basic Skills (JOBS) program for Aid to Families with Dependent Children (AFDC) recipients authorized by the Family Support Act of 1988. In consultation with the Program Director, the Instructional Coordinator had developed a general workforce education class for custodians working in the Physical Plant at the university. In addition, the Educational Council of the San Marcos Chamber of

Commerce (itself a community-based organization) had asked the Project Director to chair a literacy task force which culminated in the formation of San Marcos Literacy Action (SMLA), a community-based organization dedicated to overcoming functional illiteracy.

In short, given WIN's objective of establishing effective literacy programs for multiple small employers and in the context of existing literacy initiatives, it was evident that the WIN staff should extend the pre-existing community-based model to meet the needs of local employers and to establish a public/private sector initiative aimed at overcoming functional illiteracy in the workplace *as well as* in the community. The primary vehicles for accomplishing this community-wide effort toward workforce education and economic development were the WIN Advisory Council and San Marcos Literacy Action. These groups had overlapping memberships and complementary missions. Expressed in terms of raising community awareness, the primary WIN public relations theme was workforce development always equals economic development. In complement, the primary theme of SMLA was an educated workforce (which includes the unemployed and under-employed) enhances the quality of life in the community, and the development of effective and accessible literacy programs is an investment in the future.

Now as a parent, my children come to me and ask me for help. I do as much as possible, but sometimes it's hard to understand some of the new math. I would have to tell them sorry because it is completely different. My daughter helps while I listen and learn.

Reading/Writing Improvement Student--Custodian

Literacy in San Marcos- Preliminary Statistical Summary

City of San Marcos (1990 Census)

Total population	White	Hispanic	Black
28,473	22,527 (79%)	10,571(37%)	1,535(.05%)

Note: Totals do not equal 100% because many residents identified themselves as both white and Hispanic

According to 1980 census and recent SMCISD surveys 46% of the adults over the age of 25 do not have a high school diploma. This represents approximately 11,000 people.

San Marcos Consolidated School District

Total population	Anglo	Hispanic	Black
6,000 +	34%	63%	2.5%

SMCISD statistic: The San Marcos High School class of 1990 entered the ninth grade with 562 students. It entered the twelfth grade with 337: 40% of the freshmen did not make it to the beginning of their senior year. Of that 40%, 77% were Hispanic. Statistics for how many students dropped out in the twelfth grade are not available at this time. Nor are statistics available on the number of students who did not enter the ninth grade.

Adult and Family Literacy Programs in San Marcos

Total Population	Hispanic	Other
Adult: 1,250	86%	14%
Children: @ 120	79 children attended Project P.I.U.S last year	
	30-40 children attend ROOTS program at Jackson Chapel	

Note: These statistics do not include local adults who have attend programs at Gary Job Corps, Rural Capital Area Private Industry Council, the PRIDE Center (@ 70 students), or the Hays County Law Enforcement Center.

1,250 adults (.5% of the voting age population) put in a minimum of 36,000 hours of participation in area literacy programs.

Conclusion: There are at least 10,000 adults out there without a high school diploma and many more that are functionally illiterate.

Evaluate the context

While WIN believes that it made the right choice in choosing a community-based approach to workforce education in San Marcos, we do not necessarily believe that it is the only approach to workforce education initiatives that target multiple small employers. Rather, we recommend that practitioners carefully analyze the context in which they intend to operate and choose their approach based on that analysis. A significant factor in your analysis should be demographics. For example, you may choose to operate in a community larger than San Marcos that has a large number of small businesses. In such a context, a community-based approach to workforce education may well be too ambitious. You would probably have great difficulty galvanizing the interest of enough key players in the community to make it worth your effort. It is important to be cognizant of the diverse problems, challenges, and opportunities that make up community life. The larger the community, the more diverse, and the more likely that certain sectors of the community will take ownership of certain issues and other sectors will do the same with other issues. A promising strategy for developing programs for small employers in a medium-sized or large city might be to target a particular trade or job family and initiate a partnership with the employer trade organization and/or the labor union to which the majority of employees belong.

In economic terms where there is a greater division of labor, a greater division of literacy programs for labor is probably desirable. For example, a large high tech company may want one basic skills program for its chip manufacturing division and another one for its hardware assembly workers. (It is important to note that major components of two such programs could be, and probably should be, the same.) In a small community characterized by small employers like San Marcos, the division of labor occurs at the level of the individual business, each needing labor for one or two product lines of customer services. The division of labor is to some degree community-based and therefore we chose a community-based response.

Reconcile federal priorities with local realities

Since many workforce education programs for small business are likely to be grant funded, practitioners must reconcile the funding agency's priorities to local realities. In the case of the National Workplace Literacy Demonstration Program (NWLD), USDOE strongly urged practitioners to: 1) obtain at least a 30% in-kind and/or financial contribution from their partners; 2) link instruction to the literacy requirements of actual jobs; and 3) measure the impact of literacy instruction on worker productivity.

While the WIN staff supported all of the above priorities, it had difficulty reconciling each of them with local workplace realities. In its literacy program for child care workers, for example, it was quickly established that most day care centers simply could not afford to contribute to the project. At the same time, both center directors and workers were eager to participate. The WIN staff decided it had an obligation to serve child care providers, despite their inability to pay. (Fortunately, in USDOE terminology, the child care providers are referred to as sites, not partners. Therefore, WIN was not out of compliance

with USDOE.) Unfortunately, it is clear that the great majority of day care centers in the country can not afford to be a partner in NWLD projects. (For more information concerning USDOE definitions, please see the Federal Register, August 18, 1989, page 34419.)

Linking instruction to the literacy requirements of actual jobs can also prove difficult, particularly when those literacy requirements are quite low or when the employer has a different priority concerning the basic skills education of its workers. For example, it was difficult to develop a course of instruction tied to the literacy requirements of custodial work. In our case, this problem was heightened because the primary custodial employer that WIN served wanted a general literacy program as a prerequisite for job specific training geared toward career advancement.

Measuring the impact of literacy on productivity was the most difficult of all. There are many variables that impact productivity. It is extremely difficult to attribute increased productivity to literacy instruction directly. Therefore, in some job families we used measures that we deemed were correlated to productivity. For example, within the Custodial Job Family, workers had little if any literacy requirements on the job. Still, supervisors and management believed their workplace would be enhanced (i.e., more productive) if their staff were to improve their literacy skills. Given improved literacy skills, more students could work toward and receive their G.E.D. and could be promoted, which would in turn open up entry-level jobs. Therefore, we argued that we had to affect the supervisors' and managements' perception of productivity. Within this job family, given increased perceptions of productivity, our project would be deemed successful.

Demonstrate what for whom

Demonstration projects are designed to identify instructional strategies that are replicable in a wide variety of situations and for a wide variety of audiences. In fact, the purpose of this guide is to help you find effective strategies to implement a workforce education program in your company or community. However, we recognize each company and community exists in a unique context, and it is usually necessary to customize your program to that context. In San Marcos, we found it useful to ask the following questions: Demonstrate what for whom? After some discussion and an in-service staff workshop, the WIN staff reached the following conclusions for our workforce context. First, we needed to demonstrate to local workers and employers that participation in the WIN project can make a positive difference in the way work is accomplished, however measured. Second, we needed to identify what worked best and recommend it as a promising approach to practitioners who are implementing workforce education projects with these job families.

This was a good first step, but the federal priorities-local realities dilemma was difficult, particularly as it relates to program evaluation issues. In our discussions with local businessmen, we sometimes encountered an aversion to government intrusion into their affairs. It is important to account for this possibility when you initiate discussions with employers. The box below describes WIN's encounter with one such employer.

Federal Priorities and Local Realities: You Can't Get There from Here

In the fall of 1991, WIN initiated its first Math for Manufacturing class. The partner company manufactures heat tracing products, usually involving insulated electric wire, for the application of heat to piping, tanks, instrumentation and other types of equipment. Headquartered in San Marcos, the company is competitive on the world market in its niche and has manufacturing and engineering offices in eight countries around the world. The San Marcos plant, the company's largest, employs 220 people, about 50 of whom work in what is called the wire plant. Hearing about the services of the Workforce Instructional Network at a presentation made by the Project Director to the San Marcos Manufacturing Association, the Vice President of Operations called WIN and said he was interested. Negotiations on how the program would be implemented began.

At about the same time, the project's outside evaluator, visited WIN to gather data for his baseline evaluation. He spent a good deal of time talking to project staff about the importance of program evaluation and the need for accountability. He reminded staff that we had proposed to USDOE that we would quantitatively and qualitatively assess learner gain in job-related literacy as well as develop productivity measures. Due to the evaluator's comments, federal priorities were in the forefront of our minds during the negotiation phase. The vice-president listened politely as the project director told him the things we would need to do to satisfy our commitment to USDOE. In addition, the project director sent a WIN staff member to interview the vice-president in order to collect some baseline data for the outside evaluator.

The vice president appeared accepting of it all, and we proceeded to develop an effective and exciting class for 15 of the company's wire plant workers; all but one of whom were women of Mexican and Mexican American origin. In order to gather some data on productivity, the project director met with the Wire Plant Supervisor in order to devise a productivity related supervisor rating scale. In that meeting the project director made some mention of USDOE or the federal government. The Wire Plant Supervisor quickly said, "You better be careful talking about the government with Mr. _____ (the vice president). And if you need anything from him, you better ask me to get it for you. He's pretty steamed about the government wanting this and that around here." Well, this was all news to the project director. The supervisor went on to say that the vice president had said, "You know, if I had known those guys were gonna want so much damn other stuff, I would have just hired a Math teacher from the high school."

The class was a success by every measure, pre- and post- tests, supervisor ratings, and participant observations. After it was over, the project director asked if the company would be interested in developing an intermediate Math class. He was told that the company was just about to enter its busiest part of the year and to contact the company in the Spring. The project director did so. He talked to the Plant Supervisor twice and the Vice President once. There was always something that prevented us from getting another class going. The Project Director suspects that the real reason has to do with the problem of reconciling federal priorities with local realities. Yet the class was a success, and the wire plant workers and supervisors still need and want more math instruction. Only time will tell if WIN or some other literacy initiative will be welcome back to the wire plant.

Implement evaluation strategies

Both anecdotal evidence and the literature (cf., Chisman, 1992) indicate that many small businesses do not find formal evaluation as used by educators either useful or cost effective. Our experience confirmed this and indicated that our small businesses preferred focus groups and other informal methods. On the other hand, USDOE wants and needs hard evidence to demonstrate to Congress and the tax paying public that it is making a positive difference with our tax dollars. Practitioners need to develop creative strategies to meet the somewhat contradictory needs of these two very important "customers".

We chose a strategy that used evaluation methods that were collaborative in nature, such as focus groups with workers, supervisors, and management representatives. If your program is going well, it will be easy for management to note increased employee self-confidence and enhanced job performance. This observation on the part of management may result in the gathering of information you consider valuable for your evaluation. Just be careful how you ask for it. You might try some gentle prompts such as, "I wonder if Juan's attendance has improved since he began taking classes?" If the company is large enough to have a human resources office, you may be able to work with them on the collection of job-related data. Unfortunately, most small businesses do not have such an office, and many do not keep the kind of productivity data that practitioners might find useful.

Utilize the Advisory Council

Another promising strategy is to use the forum of the Advisory Council as the place to discuss workforce education on the global, national and local levels. Begin by informing the Advisory Council about federal priorities. Seek their assessment of local realities in specific relation to those priorities. Share the program evaluation objectives stated in your proposal with the Council and elicit their advice.

USDOE might consider making it a priority that outside evaluators be recruited locally. Such a person could devote his time to building a partnership effort for the *purpose* of program evaluation, thus freeing up the Project Director to concentrate solely on project implementation and program development. The evaluator and the director could then work together to achieve both local and federal objectives. USDOE could hold meetings early in the funding cycle to inform both the local evaluator and project director of its priorities and to provide specific training.

Build the network

The construction of a community-based Workforce Instructional Network involved two distinct processes. One was the creation of a forum which sought community input and promoted a cross-fertilization of ideas and strategies that centered around the educational needs of the local workforce as viewed from diverse perspectives. The other was the creation of a mechanism for implementing actual programs. To initiate the first process, we formed the WIN Advisory Council. The WIN staff invited representatives from across the community who had an interest in the development of an educated and/or skilled workforce to monthly meetings over the lunch hour. In addition to employers who were active WIN partners, we invited literacy professionals, elected officials, representatives from employers not participating in WIN programs, members from boards of community organizations, university professors, workforce education students, students from other literacy programs, floor supervisors, school district representatives, etc. The purpose of this approach was threefold: a) to raise community awareness about the need for workforce education instruction; b) to create a forum where the purposes and methods could be openly discussed; and c) to build community buy-in for WIN objectives.

I need help to improve my job because the laws, rules and regulations are changing every day.

Reading Writing Improvement Student

Head Custodian

At the first meetings, the WIN staff introduced the USDOE National Workplace Literacy Demonstration Program and attempted to explain it in global, national, and local contexts. Studies and reports such as *America's Choice: High Skills or Low Wages* (1990), the *Secretary's Commission on Achieving Necessary Skills* (1991), pertinent articles from the Business Council for Effective Literacy, *MOSAIC*, and other newsletters were disseminated and referenced so that Council members could view the WIN project as part of a broader context or movement. In addition, the Advisory Council was utilized as a forum to discuss the salient differences between job-related functional context education and other more traditional literacy instruction (e.g., library based one-on-one tutoring, English as a Second Language, G.E.D., etc.). This stimulated thought and discussion among employer representatives about what they wanted their employees to learn and why. Did they want to provide G.E.D. training for their employees simply because a significant number did not have a G.E.D.? Would the academic skills that such training emphasizes have an impact on job performance? Did they want to link the learning to the skill requirements of actual jobs? Did they want workers to learn content or to learn how to learn? Similar questions should be discussed in your advisory council meetings.

We found through these discussions a cross-fertilization of ideas began to take place. It turned out that employer representatives from two high-tech companies new to San Marcos had extensive experience in basic skills programs in workplace contexts and were doing similar training for their companies. These companies had already committed to their own brand of Total Quality Management. When they moved to our town, they set high minimum skill standards for entry-level jobs. Therefore, they did not need WIN services. However, their representatives brought quality experiences and insights to the Advisory Council. In discussions of general literacy versus job-related literacy in specific contexts,

they were able to make insightful comments based on their experiences. If WIN had limited the Advisory Council to only participant workplaces, this source of expertise would not have been added to our program.

The second process for developing the Advisory Council evolved after WIN had implemented programs for each of the job families. The Advisory Council began to take a broader view of the issue of workforce development in the community. Toward the end of the grant cycle, the Advisory Council sponsored a workforce development focus group, primarily as a means to assess where to go from here without the support of the USDOE. Employer representatives reported they had difficulty finding qualified applicants, even for low-skill jobs. One truly startling revelation that arose out of this discussion was that every employer in the room admitted that most of their skilled employees lived outside the San Marcos community. If higher paid skilled employees live outside the community, they are likely to spend their paychecks elsewhere. WIN is hopeful that the implications of the above for the local economy will serve as a galvanizing issue for San Marcos Literacy Action to build local support for linking literacy education to actual jobs after the funding period.

The establishment of the WIN Advisory Council was a critical mechanism in the provision of a community base to the Workforce Instructional Network. It created a forum where people could explore the nature of the link between literacy and a good job. It provided a forum for the WIN staff to develop and refine its marketing premise: workforce development equals economic development and enhanced quality of life. Finally, it planted the seed for a private/public sector initiative to develop the local workforce through literacy.

Create a participatory support structure through focus groups

Learning communities require collaboration among all participants to create a safe, respectful environment in which each individual can be and is heard.

Marilyn Boutwell "Partnership For Change"

Participatory Literacy Education

WIN's partnership with the two San Marcos Chambers of Commerce and the establishment of the Advisory Council were critical steps in the process of establishing a viable workforce instructional network for San Marcos. In business parlance, the Chambers and the Council were the marketing arm of the network. However, another mechanism was needed to produce effective literacy programs for each of the four job families. In order to guarantee that the instruction was job-related, the WIN staff believed it was essential to understand the workforce education problem from as many perspectives as possible. We felt the best way to accomplish this was to establish planning and

evaluation focus groups for each job family and work toward creating a participatory, collaborative workforce education effort. This focus group should have at least one management representative, one direct supervisor, one worker, and one educator. The purpose of the participatory group is to work together to understand each other's perspectives and concerns about all facets of the planned workforce education program.

The advantages of this participatory approach were numerous. First, it built collaboration from the very start. Management, supervisors, and workers alike were able to see that the WIN staff was interested in addressing the needs, honoring the perceptions, and listening to the ideas of the key stakeholders in the proposed program. It created a level playing field, at least for the purpose of education. Workers and employers both knew that they had an active role in the implementation process. Potential problems, such as confidentiality of test scores, relationship of student participation to job security, nature and extent of employer and employee contribution to the project, and other critical issues were addressed collectively. This participatory approach initiated a process of employer and employee *ownership* from the inception of the program and strengthened the credibility of the WIN staff. Employers and workers alike saw that the WIN staff was being consistent. We did not say one thing to managers and supervisors and another to workers. Also, the openness of the approach afforded the WIN staff high visibility at the various work sites. By the time the needs assessment was completed and classes began, workers, supervisors, and management knew who WIN was and why we were there. The potential for key stakeholders to feel blindsided or left out of the process was minimized. We attempted to develop these focus groups for each job family.

However, as noted above, workforce education programs occur in specific contexts, and literacy providers must have the ability to analyze workplace culture and act quickly on that analysis. We found first impressions were critical. We often were unable to immediately implement a participatory approach for the creation of these focus groups. In some cases, we even encountered resistance. (See box below for an example.) In these situations, we were able to adapt the participatory approach to existing realities without sacrificing fundamental principles such as the WIN staff's commitment to the holistic model of adult literacy development.

The WIN staff faced such a reality when it implemented its workforce education program for custodial workers at Southwest Texas State University. As noted above, SWT had a workforce education program for custodial workers in place prior to the funding of this grant. That program had two major components: a general literacy program with the objective of preparing custodial workers for the G.E.D. exam and a job skills program for custodians who wanted to advance to skilled jobs within the SWT Physical Plant. (Custodians who sought to improve their limited English proficiency were referred to the existing literacy program at the San Marcos Public Library.) Although the program had been successful from the perspective of learner gain, it did not enjoy the full support of Physical Plant management and supervisors. In particular, the supervisors were reluctant to provide release time for custodians. The reasons for this were multiple. In some cases, it was just a matter of workload. In others, custodial supervisors themselves were limited English proficient and were threatened by the program. In general, supervisors did not understand why they were required to provide release time for workers to attend literacy or job skills classes. They did not see "what was in it for them" and were, therefore, non-supportive.

Realities of a Participatory Approach

Based on our experience, WIN recommends the participatory approach to those developing workforce education for small businesses. However, practitioners need to be sensitive to the contexts they are working in and flexible in the development of effective workforce education program.

Early on in our project, WIN staff discovered first hand how a program can be compromised by not informing all stakeholders of your purpose from the outset. An employer approached the WIN staff about the provision of Commercial Drivers License (CDL) instruction to its drivers. In the negotiation phase, the Human Resources Department assured the project director that all arrangements had been made for the classes to begin.

A meeting was scheduled with the plant supervisors, and it was as if they had never heard of WIN. These supervisors had very strong opinions about how the CDL program should be implemented. First, they believed that the employer should provide full release time to workers studying for their CDL test because the new licensing was required by law. The employer had proposed a 50 % time share. Second, the supervisors believed the worker should pay for it because they would have the right to take it with them to a new employer. The employer had proposed that it pay for the cost of the CDL license. These issues were resolved at a meeting between supervisors, human resources personnel, and the WIN staff, but a negative and combative tone had been established. Other difficult issues quickly arose concerning confidentiality of the needs assessment process: a critical issue due to the large number of Limited English Proficient drivers who needed to prepare for the exam orally in Spanish. Finally, there was a philosophical difference between WIN instructors and the supervisors on how instruction was to take place. Supervisors advocated a quick intensive training approach to achieve the discrete goal of the CDL license. WIN instructors preferred a "learning how to learn" approach with classes to be held four hours per week for five weeks. The WIN objective was for workers to complete the CDL class with the knowledge of how to prepare themselves for any job-related certification which required the studying of a manual in order to pass an examination.

All of these problems and differences were worked out, and the classes were taught according to the WIN instructional model. However, there was no mutually agreed upon mechanism for addressing the issues, and unnecessary tension was created. Extensive damage control was required. If the WIN staff had initiated the partnership utilizing the participatory model described above, these issues and differences would likely have surfaced early on and would have been efficiently and effectively addressed in a far more agreeable fashion.

It was the WIN staff's objective to supplement the pre-existing workforce education program with an expanded workforce education course for custodians and to develop a career advancement component to prepare custodial workers for entry-level office jobs at SWT. As explained below, a needs assessment revealed that custodial work at the Physical Plant was organized in such a way that the need for literacy skills was minimized. Nevertheless, the WIN staff developed a Reading/Writing Improvement class using such job-related material as safety sheets and personnel forms. In addition, a Clerical Skills class for career advancement was developed because the workers requested it. In order to foster as much cooperation and collaboration as possible, the WIN staff was in close contact with the SWT Physical Plant Training Coordinator. Next, WIN instructors created a participatory environment in custodial classes such that students were involved in the curriculum development process and felt "ownership" in the class. Finally, the Training Coordinator arranged a meeting between all Physical Plant supervisors and WIN staff. This variation on the general theme was deemed to be as successful as possible, given the situation.

Still, the WIN experience at the SWT Physical Plant was not wholly participatory. In part, this was due to the pre-existing literacy program and the workplace structure of the Physical Plant. As a literacy provider, the WIN staff had to take these conditions into account and adapt the participatory model to Physical Plant reality. In so doing, the participatory nature of the project for this job family was weakened to the extent that the WIN staff was not fully informed by the supervisor and management perspectives. For example, SWT has no articulated commitment to the promotion of custodians into entry-level clerical skills jobs on campus. Still, high supervisor enrollment in the Clerical Skills class resulted in an enhanced appreciation for job-related literacy instruction on the part of some supervisors who may be more disposed to participate in future planning and evaluation focus groups. Moreover, SWT has allocated funding to continue the Reading/Writing Improvement and Clerical Skills classes beyond the life of the current grant cycle.

The WIN staff was able to replicate the Reading Writing Improvement class for custodians within a local school district. In this instance, the WIN staff was able to more fully implement the participatory approach to course development. WIN staff first met with the Assistant Superintendent for Business Operations and the Director of Special Projects to discuss our purpose and to learn about the school district's workforce education goals. We then met with all custodial employees and supervisors to determine what they wanted to learn and why. After a logistical analysis of the situation and discussion with WIN teachers, it was decided that program implementation would need to be delayed until summer to accommodate both worker and teacher schedules. In early summer, the WIN staff met again with district representatives to negotiate issues of worker release time and school district contribution to the program. The following week the WIN staff met with interested employees, management representatives, and supervisors following the participatory model discussed above. The program was initiated through the full collaboration of key stakeholders. The Director of Special Projects for the district was so excited by workers' progress that he brought a video camera to the last class in order to capture worker thoughts about what the class meant to them. He intends to use the video to demonstrate the value of workforce education programs to school districts around the state and potential funding sources.

Therefore, the WIN staff was able to fully implement the participatory approach in the school district program, and the interest and support of management was far more evident. As a result, all stakeholders viewed the program positively, and the school district now provides 50% compensatory time to custodians who enroll in local ESL, ABE, or G.E.D. classes.

These examples illustrate the WIN staff's implementation of the participatory model in two distinct contexts. In the first case, WIN was obliged to adapt the model to the cultural complexity of the SWT Physical Plant. The program was successful at the level of individual learner, but it had minimal impact on job performance, except in the case of custodial supervisors who were able to transfer their new clerical skills to the reorganization of their workload. One reason for this minimal impact is that custodial work at the university is organized such that a bare minimum of literacy skills is required. It is doubtful that this work will be reorganized to require more literacy skills in the foreseeable future. Still, the only means to tie workforce education instruction to improved job productivity was to target supervisors' perceptions. The Physical Plant Training Coordinator and the Physical Plant management reported satisfaction. We understand that as improved productivity.

I think this class will help me in my job. Sometimes we have to refer to the MSD book to find information on a chemical and by knowing it is filed alphabetically we can find it faster, and we have to answer memos and by our knowledge of writing we can do a better job.

*Business Writing and Clerical Skills student
Custodian*

Developing Curriculum

Develop workforce education curriculum around generic literacy strategies

Complete focus group interviews with workers

Gather job-specific material

Observe the workers on the job

Develop a participatory classroom based upon a needs assessment

Establish the logistics of the class

Ensure confidential reporting procedures

Negotiate contract with business

Screen with context-relevant task

Re-assess the need and adjust the curriculum

Develop workforce education curriculum around generic literacy strategies

We chose to design our curriculum to appropriately meet not only our educational criteria but business needs as well. Meeting business needs was crucial to our project, but became complex when having to meet both individual and common needs. By concentrating on developing curriculum based on educating the workers in generic workforce education strategies rather than training for specific job content, the instruction was made flexible enough to meet the needs of workers from several small businesses. For example, in our Business Writing and Clerical Skills class we had workers from SWT, the Public Housing Authority, several retail stores, cleaning services, and self-employed child care providers. Literacy instruction centered around reading strategies for accessing resources to answer job-advancement questions, and then synthesizing the answers into writing projects in order to share the information with others. These generic workforce education strategies served to meet the needs of the businesses by providing workforce-literate workers able to address many literacy demands. It further served the workers by providing a model for functional reading and writing. These generic, workplace literacy strategies were found to be appropriate whether the individual was currently cleaning buildings or working a cash register.

The focus on educating for *generic* workforce education strategies rather than training for individual job skills also enhanced the transferability of the learning in several ways. We expect the generic workforce education strategies to be helpful in a variety of future job advancement options, including writing evaluation reports as a custodial supervisor or generating memos as an office worker. In addition, the generic workforce education strategies focus also enabled some workers to develop applications of these skills into their personal lives. For example, anecdotal evidence revealed that several workers gained the confidence and incentive to read books that had been sitting on home shelves for quite some time. Several workers even expressed an interest in applying for admission to the university. They noted the applicability of the reading and writing strategies to achieving success in college. These changing personal goals can be considered strong evidence of an increased self-confidence in our workers' literacy ability for any environment.

(Do you think taking the class will help you in your job?) Yes. It made me feel better about myself no matter what I am doing right now.

Business Writing and Clerical Skills student--Custodian

Complete a small business needs assessment

An effective means for determining the educational needs of the businesses you hope to serve is a Literacy Task Analysis. Descriptions of the formal process can be found elsewhere (Drew & Mikulecky, 1988). We found we needed to modify this process to work with small businesses while retaining the three main points of triangulation:

interviews, materials inspection, and job observation. Therefore, we created a needs assessment to look at each worker's job from several viewpoints in order to get a clear picture of the literacy tasks or demands involved in its completion.

Complete focus group interviews with workers

We formed focus groups rather than conducting only individual interviews within each organization in order to interview the various workers involved in a job (see above). Often in small businesses, several workers performed several jobs. Moreover, we found it important to get input from each level of the business organization. Management gave us a *big picture* of how each job fit into overall business needs, such as in terms of quality goals; the first-line supervisors contributed information about the problems with actually completing the goals; and the front-line employees were the *job experts*. Usually these focus groups were composed of people at all levels discussing concerns together. However, an uncomfortable management climate in some small businesses mitigated against focus groups. In these climates we interviewed the same players separately.

In addition to the information-gathering function of the interviews, direct contact with each set of concerned workers early in the development cycle increased the commitment of the organization. This buy-in was crucial to our success. Lack of commitment almost torpedoed our work with one organization for another job family. We neglected to work directly with the first-line supervisors of people who needed to pass a Commercial Drivers License exam because, as a new state law, the need seemed evident. This was a mistake, and it took a lot of energy to mitigate the damage done by this oversight. First-line supervisors were found to determine whether a program, and the workers who participate in it, will be viewed positively or negatively by other workers.

Gather job-specific material

The next step in our needs assessment was to gather all the materials which potential workers were expected to use when completing a particular job, as well as those general materials which are part of their work environment such as safety warnings, newsletters, and policy manuals. These materials were used to provide a functional context for instruction. For our Reading/Writing Improvement classes, for example, materials from the job were both supplied by the instructor for large group discussion, and brought in independently by workers for individual practice. However, materials themselves should be carefully evaluated in the curriculum development process. Occasionally, what looks like a lack of necessary skills in the workforce can actually be traced to poorly designed materials. In that case, new materials rather than classes might be suggested to more appropriately meet the business' needs.

Observe the workers on-the-job

The third point of the triangulation was actual job observation. This gave us a context for the information gained in the interviews and provoked further clarifying questions about the literacy strategies of the workers. In addition, observation helped avoid misunderstandings about the nature of the job which would not be uncovered in an interview-only approach. Employees often did not realize the extent of the various literacy tasks required by their jobs nor did they identify them as such. For example, since the *reading-to-do* found on a job is different from the *reading-to-learn* remembered from school days (Mikulecky & Diehl, 1980) workers may say they don't read on the job, whereas observation gathers more accurate data on the frequency of their actual job-related interactions with print.

Job observation in the Custodial Job Family revealed a relative dearth of literacy tasks needed to successfully function as a beginning level custodian. Literacy demands were more obvious in job advancement opportunities as well as in home and community-related contexts. Classroom materials, therefore, were drawn from the workplace but were more often identified based on workers' personal interests. However, transfer of learning strategies for many types of texts was demonstrated during class.

Develop a participatory classroom based upon needs assessment

This class helped me feel good about things that I never really thought I could do. When you listened to me and encouraged me, then I realized I really could do things. That gave me more self-confidence, and now I try to do that with my crew. When the guys come to me with questions, I feel more able to listen to them and try to help with new things, instead of just telling them the same things to do.

Reading/Writing Improvement Student

Ground Crew Supervisor

The curriculum was considered the road to our instructional goal. Therefore, based upon the needs assessment, we identified suggested basic topics, a sequence for the topics, some materials and handouts to be used, and pre-tests and post-tests before beginning the class. Still, the curriculum was considered tentative until actual class members were involved in the development. There are three important reasons for running workforce education classes in this participatory manner. First, the workers are the *job experts* and their continuing input is essential to determining the validity of instruction. There is little time to waste in unnecessary instruction, and they are prime experts in what instruction is relevant to their needs.

Second, sharing the power of the class tended to increase the commitment of class members. This commitment was crucial to success and can be easily lost if the classes come to be viewed as just something "done to" the workers by management or by educators unconcerned with them. This commitment is also enhanced because a participatory approach demonstrates respect for the learners as successful adults who bring many skills with them to class.

Third, several of the underlying skills considered important by businesses today, such as those associated with problem-solving and teamwork, are developed best in the atmosphere of mutual respect fostered by participatory education.

Characteristics of an Effective Participatory Instructor:

Flexible

- willing to adapt new teaching strategies
- able to take and give constructive criticism
- able to approach problems and explain ideas from many angles, not just "This is my way, the right way."
- employs a team-player approach
- facilitates group interactions

Experienced in the Real World Application of the Content Area

- knows subject thoroughly to allow teaching from numerous perspectives and validating building from learner's prior knowledge
- quickly builds bridges from academic jargon to real world contexts

Student-Centered

- sensitive to workers' perspectives
- able to listen, as well as lecture
- patient with disparate background knowledge and rate of progress of varied adult learners
- acknowledges learner gains in as many areas as possible, not just pre-post-test numbers
- shows workers s he cares
- sensitive to multicultural issues

Establish the logistics of the class

Educators who are used to working in an established educational institution often do not have to think of some of the logistics associated with developing a class. However, we found workforce education requires a more entrepreneurial approach. Such things as finding a place to teach, discovering a source for overhead projectors and blackboards, and arranging for copying services must be done. One important item to consider was the confidentiality of a classroom site. One of our classes moved to the community room of the local public library rather than use a training room in one of the involved organizations. Since the supervisors' offices were off of the training room, employees sometimes felt that management could "look over their shoulders." The library room was better able to meet the workers' needs for confidentiality during class.

Ensure confidential reporting procedures

Confidentiality was also an issue for reporting student progress. We found it very important that the workers feel comfortable during the learning process. This was especially true of our workers whose past educational experiences had been negative. They needed to know that the inevitable mistakes they make while learning would not have a negative effect on their job ratings. To ensure this confidentiality as learners, we negotiated agreements with all employers to provide them with learner gain reports either in the aggregate or individually with randomly-assigned numbers, rather than names of workers.

Negotiate contract with business

The program director needed to negotiate an informal agreement with the businesses for both programmatic and individual learner concerns. One aspect of this agreement was the incentives which were used to encourage workers to attend class and the various ways workers were going to demonstrate their commitment. In the case of the Custodial Job Family, employers demonstrated their commitment by paying for either half or full release time for the workers to attend classes. The employees demonstrated their commitment by regular attendance, which was reported to the companies, and by doing the necessary studying outside of class on their own time. Since the employees came to class during the regular working day there was no need for additional support structures such as child care or transportation.

Screen with context-relevant task

We chose to screen workers to answer two questions: 1) What are the interests and needs of workers; and 2) Which students are not at appropriate functional levels for the class as designed and can be referred to a more appropriate support structure? The screening process included several perspectives in order to get the most complete information to answer these questions. Perspectives included information from the needs assessment, the worker's self-perception of need, the perceptions of management and supervisors, an interview with an educator during the first class to prepare the Individual Educational Plan and to assess possible English as a Second Language (ESL) needs and student goals, and pre-tests to determine general and job-specific literacy levels, writing ability, and reading and writing apprehension levels. These several perspectives provided both qualitative and quantitative information for the educator to determine what was best for each student.

Midwife-teachers are the opposite of banker-teachers. While the bankers deposit knowledge in the learner's head, the midwives draw it out. They assist the students in giving birth to their own ideas, in making their own tacit knowledge explicit and elaborating it.

*--Belenky, Clinchy, Goldberger, Tarule,
Women's Ways of Knowing*

**SWT Physical Plant
Reading/Writing Improvement Class**

Let's Get Started!

What is today's date?

What is your name?

What is your job title?

Where do you work?

Please take your time to answer the following questions. Be as honest and complete as you can. Use the back of this sheet or another piece of paper if you need more room. Your answers will help me know what and how to teach to meet your needs. Let's create a class together!

Why are you in this class?

What are the two most important things you want to learn from this class?

Do you think it is easy or hard to learn new things? What makes you think that?

What are your plans when you finish this class? Do you think you'll do your job any differently? Will you take other classes? Do you hope to get a promotion or different job?

Re-assess the need and adjust the curriculum

The results of the pre-testing and interviews were then evaluated. At this point, some workers were referred to alternative educational providers for help with ESL or beginning literacy instruction. The goals and interests of the workers remaining in the class were mined for commonalities and progression of ideas. Workers and instructor together prioritized interests and ideas to come up with a progression of class themes, reading materials, and writing projects. This progression was then matched to our curriculum developed prior to class and compromises were made. The flexibility of this approach created a need for on-going instructor support staff provided by the Instructional Coordinators.

Provide in-service for staff development

A particular addition to our course development was the provision of staff development workshops. Most of our staff had not worked in workforce literacy environments, had little experience with qualitative and quantitative assessment, and had virtually no experience with the WIN instructional model. We solicited consultants from the field at large as well as from SWT to deliver three workshops. Outside consultants were hired to provide a two-day workshop to help us corroborate our priorities to demonstrate "what" for "whom". This workshop was extremely fruitful to evaluate these priorities and document what information needed to go to whom. Two half-day workshops were given by the Program Director on the WIN instructional model as well as administration and scoring of the cloze instrument. For the novice instructors, these proved useful. In addition, the Instructional Coordinators held weekly staff meetings where instructional issues were discussed, pedagogical strategies confirmed, and problems resolved. To foster transfer for instructors, several of the instructors sat in the class for an entire mini-course to observe and act as teacher's aide. For the next iteration of the mini-course, the instructor taught the course with the Instructional Coordinator observing and acting as a teacher's aide. This transfer of responsibility for instruction proved successful as performance varied little from those mini-courses taught by the Instructional Coordinator and those taught by novice instructors. We would, therefore, recommend you solicit consultants for staff development in curriculum development, the WIN instructional model, and qualitative and quantitative assessment.

Teaching the Class

Teach process not content

Use WIN 4-part instructional model

Teach process not content

When designing courses for the Custodial Job Family, improving generic literacy skills were deemed significant desired learner outcomes. For many custodians, however, literacy tasks (whether reading, writing, or calculating) were not a significant portion of their day-to-day routines. Because of the generally low literacy levels of this group of workers as a whole, job routines had already been established by supervisors which effectively and efficiently by-passed workforce education demands. Mixing and diluting of chemical cleaning solutions, for example, were done by supervisors or via simple routines which were consistent parts of a new employee's training. Safety training was given orally, if needed, with enough individual practice that workers and management generally felt no more instruction in this area was necessary.

Workers, however, had a strong desire to improve their literacy skills both for personal growth and for job advancement. Management supported this desire. Courses were devised, therefore, which emphasized expanding reading and writing strategies applicable to general literacy as well as future workforce education demands. Generative themes evolved from workplace issues, and workers employed a variety of community resources to explore those themes

Courses for custodial workers took several forms, depending upon the workers involved in any particular course. In general, however, two distinct kinds of classes were offered. A Reading/Writing Improvement class was designed primarily for workers who did not yet have a G.E.D., although their literacy levels varied widely. Generative themes focused on issues from work and home. A Clerical Skills class was designed for workers who had already obtained a G.E.D. or high school diploma. This class focused on career advancement issues. Both classes emphasized expanding reading strategies for a variety of texts and then synthesizing and applying reading-based themes into original writing.

Although the content of the courses varied with participant feedback, one of the main topics addressed in each course was the instructional *process* of teaching workers how to learn independently. Workers were expected and guided to contribute greatly to the pacing and presentation of ideas (see WIN instructional model below). This method of teaching surprised many of the workers who, following the traditional model, initially expected the class to consist largely of lectures on specific literacy areas. Workers were surprised to be forming, then answering, their own questions about subjects. Other aspects of the instructional model (detailed below) contributed to a consistent effort to model and practice the *process* of independent, holistic learning by using the *content* derived from student-chosen topics.

Classes were held twice weekly for $1\frac{1}{2}$ to 2 hours each session depending upon the class.

The class length was based on a combination of business constraints and the number of identified literacy tasks. We felt that a twice-a-week class spread out over several weeks in the form of a mini-course gave the workers the time needed to practice and refine their use of the techniques from class at home and on the job. The usual two-day seminar of traditional training would not have permitted this guided growth process.

Descriptions of the two classes and the various times they were offered is provided below. Sample syllabi and lesson plans for each class are contained in Appendix A.

Summer, '91: *Reading/Writing Improvement* (8 weeks)

A small class of SWT Physical Plant workers, including both grounds and custodial staff, who learned job-related ESL issues such as reading work order forms and asking clarification questions of supervisors.

Fall, '91: *Reading/Writing Improvement* (14 weeks)

SWT Physical Plant workers from the custodial staff worked on applying reading and writing strategies to job-related safety materials and traditional G.E.D. vendor materials. (The G.E.D. was necessary for promotions.) Workers also generated work-related questions, such as understanding insurance and retirement benefits, located and accessed print resources to answer those questions, and wrote and presented reports on their findings to the rest of the class.

Spring, '92: *Reading/Writing Improvement* (14 weeks)

SWT Physical Plant workers and another worker from the community generated the work-related themes of cultural issues at work and opportunities for continued education. The instructor located articles dealing with the themes. Workers read the articles together, discussed strategies for achieving understanding, and answered comprehension and application questions on the articles. Then workers used those themes as a springboard for individual writing projects which were collaboratively edited and published in a group book.

Summer, '92 *Reading/Writing Improvement* (8 weeks)

Physical Plant staff from a local school district generated the work-related themes relating to education and their position at work. The instructor located articles dealing with the themes, which the workers read and discussed. Then workers used those themes as a springboard for individual writing projects which were collaboratively edited.

Spring, '92 *Business Writing and Clerical Skills* (14 weeks)

Two sessions of this class were offered simultaneously due to high demand. One session contained SWT Physical Plant workers, both custodians and supervisors. The other session contained workers from a number of retail and other service positions at a variety of businesses from the San Marcos community. Both groups of workers generated topics of interest, including clerical procedures and job advancement questions. Clerical procedures were modeled by the instructor and practiced in groups and individually. Workers then chose job advancement questions, formed interest groups, and located and accessed community resources (both print and people). Findings were written individually and revised collaboratively to form group books.

Use WIN four-part instructional model

A process-oriented educational philosophy formed the basis for our four-part instructional model. The first step in this model involved an initiating event which engaged the prior knowledge of the workers, who were considered the content knowledge experts for their jobs. Next, the teacher modeled literacy strategies, using a large group discussion format. The strategies taught were based on those literacy tasks we were able to identify via the needs assessment and through participatory learning with the workers (see above). Small groups then collaborated on workplace-related literacy tasks which required the use of these new strategies. This small group emphasis developed the communication and teamwork skills which are sought by employers, while at the same time developing workers' strategies for accomplishing the workforce education tasks. Finally, learners worked to apply their new understandings during independent practice on workplace and home-related literacy tasks.

WIN Instructional Model

Initiating event/focusing activity

- engages prior knowledge
- builds on learner strengths
- demonstrates relevance/connection of new knowledge to old knowledge

Teacher modelling/large group discussion

- uses master/apprentice conception of literacy
- demonstrates metacognitive strategies
- validates a variety of strategies from students

Small group collaborative practice/application

- encourages a community of teachers/learners
- gives learners opportunity to develop teamwork skills being emphasized by business
- safe risk-taking environment, especially for LEP students

Individual practice/application at home and work

- transfers strategies to variety of contexts
- encourages metacognition
- incorporates writing across content areas

Initiating event

At the beginning of the class, activities are oriented toward engaging the background knowledge of the workers. Starting with information the learners already knew reinforced their self-confidence about the importance of their prior knowledge and lessened the feeling of the class as remediation. Starting instruction by building on strengths already held also decreased the alienation and helplessness many workers felt toward learning. The participatory nature of the class was enhanced by acknowledging the co-learner status of instructor and student, with workers as experts in job content and instructors as experts in applying learning strategies. The brief "survey" of background knowledge also served as a mini-diagnosis for the teacher. She could have a rough idea of the level of expertise of each of her workers and, therefore, know at what level to begin instruction, what analogies would be relevant in teaching, and who could be called upon early as an "expert" to help model concepts. Examples of initiating activities can be found in the Lesson Plans in Appendix A.

Initiating activities in the Reading/Writing Improvement class might include reading a title and predicting text from the article, or discussing personal experiences on a given topic. Focusing activities in the clerical class included a group discussion of what workers already knew about various clerical topics, such as filing or message-taking, or a review of researching/writing progress to date and a plan of action to take for the class session in order to meet long-term goals.

Modeling and large group discussion

The next step in the class was the instructor modeling a technique such as how to brainstorm ideas for a writing project. Think-alouds (described in Soifer's book below) were often used for demonstrating a variety of reading comprehension and writing composition strategies. The instructor would talk about her search for meaning while encouraging class members to contribute their ideas. Teachers and workers talked about not only the *what* (i.e., the content) of the text meaning, but also the *how* of arriving at meaning. Comprehension strategies demonstrated and discussed included vocabulary context clues, predicting information and reading to confirm, marking text with question marks, and underlining to monitor comprehension. Writing composition strategies included the process of planning, organizing, writing, editing and revising. A useful checklist of reading strategies can be found in Soifer's *Complete Theory -to-Practice Handbook of Adult Literacy* (1990)

The combination of teacher modeling and large group discussion was very flexible and could be altered as needed according to the progress of the workers. Some methods were modeled almost exclusively by the instructor the first time. Other methods were presented mostly by the workers, with the instructor facilitating a summary, if necessary.

Guided practice

The next step added a guided practice for the literacy techniques introduced during the modeling and group discussion step. For example, reading strategies were applied collaboratively on a separate text or a different part of the group-modeled text. Or, peer feedback was provided during all the steps of the writing process (planning, organizing, writing, editing, revising). Workers usually formed their own groups of 2-5 members. They were encouraged to talk aloud about their problem-solving process in order to arrive at a consensus understanding about the literacy strategy they were learning.

This small group practice was intended to mirror and evaluate the strategies learned during the large group modeling, but with much less direction from the instructor. The instructor's role in this step changed from director to facilitator. Workers were encouraged to actively involve all group members in a discussion of each student's understanding of how to use the strategy. If questions arose as to punctuation placement during writing, for example, the instructor's first response was usually, "What does your group suggest? Who have you asked within your group?" This collaborative small group activity validated workers' roles as co-teachers and encouraged workers to think of knowledge as being actively constructed, not passively received. Even problem-solving was guided toward being an on-going collaborative effort, not a random guess for the right answers to complete the worksheet.

Independent practice

The fourth step provided the workers with a chance to independently practice the new literacy techniques they were learning in new texts. Each individual student wrote and/or read about topics of their own selection based on the theme discussed in class. Their writings were extensively revised with the goal of publication and sharing with an audience beyond immediate class members. Workers could access whatever resources they deemed appropriate for the task such as reference materials, class notes, co-workers, or the instructor. In the end, however, they had to build upon their own knowledge of literacy strategies to process the texts. Peers and the instructor were available, but the student had to use the strategies on their own. This social, mutually supportive, collaborative approach to problem-solving was designed to mimic actual job conditions of problem-solving. The results of some of these independent practice student writings have been gathered together in a separate book included in this set of instructional program guides.

Graduation ceremony

A final component of each class was recognition for the workers who participated. A brunch was given in honor of those attending each class at which Certificates of Attendance were presented (see Appendix B for an example). This brunch was attended by program staff and workers' managers and supervisors, and pictures were taken for the local newspaper and company newsletters. This recognition provided feedback to the workers on the importance we placed on literacy improvement. For adults who have had little if any academic success in their lives, this recognition was extremely well- received.

My daughter is seven. She has three story books she wants me to read to her. I never knew you could say thing in different ways. Now, when I go home, I think I'll try to do that- you know, like make the books exciting for her.

Reading/Writing Improvement student

Custodian

Assessment and Evaluation

Worker's perspective

Develop an Individual Education Plan

Collect on-going feedback from workers

Collect transfer feedback

Collect exit interview feedback

Instructor's perspective

Evaluator's perspective

Conclusion

Summary

With our participatory approach, the responsibility for each class's success was shared by workers, instructors, and evaluators. Workers were constantly encouraged to provide feedback to the instructor and to monitor their satisfaction with class progress. Instructors were encouraged to assess and adapt their instruction to the workers' needs. Evaluators were encouraged to assess the workers' progress with tools that informed both the student and the instructor. This triangulation led us to select some specific assessment tools while we developed others in a formative effort to identify the most valid instruments and procedures for evaluating worker progress.

Worker's perspective

Develop an Individual Education Plan

At the outset of each class, instructors completed an interview with each worker to design an Individual Education Plan. Using the *WIN IEP Interview Form* (see appendix B), instructors orally interviewed each worker. This information helped the instructor screen for workers who were in need of ESL instruction and to identify the worker's goals and aspirations for the class. This information was then used to adjust the curricular goals for the class (see above).

Collect on-going feedback from workers

A second, effective procedure was to request from workers information regarding their perceptions on the success of a given class as it was in progress. To gather this information, we constructed a *WIN Formative Evaluation Form* (see appendix B) and administered it during the mini-courses. This form provided the instructor of the class instant feedback from the workers about the most and least useful parts of a given lesson. Further, it gave instructors information about problems early enough during instruction that immediate corrections could be made. The anonymous, written format not only helped some workers express themselves more freely than an oral format, but it provided a forum to practice writing strategies.

Collect transfer feedback from workers at the end of class

A third procedure for gathering evaluation information which we found useful was to have workers complete a *WIN Participant Evaluation Form* (see appendix B) on the final day of class. This information helped confirm the extent of transfer that workers were making from the class to the literacy requirements of their job and their personal lives. It also uncovered any global dissatisfactions, such as too little time to prepare homework between classes.

Collect exit interview feedback

A fourth procedure was an exit interview conducted with each participant. During this conversation, oral feedback was gathered from workers to confirm the transfer of the class information to work or to home (e.g., sample information received, "I have a promotion since I passed the G.E.D. test" or "I can teach my kids how to study"). Information from

these exit interviews was then compared with the student's Individual Educational Plan designed at the outset of the course and examined for goals achieved and new goals set (see example in Appendix B) These new goals helped program staff determine new courses that needed to be offered or referrals to other community service or educational programs for additional support.

Instructor's perspective

These same four tools used to understand the worker's perspective helped inform the instructor on the workers' progress in the strategies, their concerns about strategy usage, and any transfer of strategies to work and home literacy task demands. At the same time, traditional pre-test and post-test instruments were administered to document progress for the evaluator's perspective.

Still, the instructors felt even more information was needed to adequately monitor workers' progress during the class. Gains in behaviors, attitudes, and procedures toward learning reading and writing were not adequately documented by existing measures. Students increased confidence in asking questions, willingness to plan and revise writing projects, and ability to apply reading material to real life situations; all of these aspects of learning were deemed important by instructors and workers. At the same time, traditional quantitative evaluation has tended to regard these aspects as too subjective to measure for purposes of program evaluation. Therefore, near the middle of the granting period the WIN staff began developing portfolio-based qualitative assessment instruments. These instruments were designed to show gain in participatory learning behavior, application of reading strategies, application of writing strategies, and improved reading and writing performance. Because of the complexity of designing and validating these instruments, we were only able to use them in two offerings of the Reading/Writing Improvement class. However, we would recommend these instruments be used by the instructor to document progress and revise instruction as needed. We also believe they can, and should, be used by both instructor and student together to discuss progress in the construction of their reading and writing strategies. Furthermore, we recommend continued piloting of these instruments with the goal of assessing their efficacy and appropriateness as program evaluation instruments. These instruments have been provided and described in a separate book included in this set of instructional program guides.

School was a very bad experience for me. I couldn't speak a word of English when I first started the first grade. I remember standing with my dad, outside the third grade class, crying, not wanting to go inside the class room. I didn't learn English until maybe the third or fourth grade.

By the time I left school I was seventeen years old and I was in the eighth grade. I had learned practically nothing...

Ironically, I think I learned more after I left school, because then I got interested in books...

My goal is to some day attend college classes at my place of employment. I dare to dream that some day I could obtain a college degree.

--Reading/Writing Improvement Student-- SWT Groundskeeper

Evaluator's perspective

A variety of formal assessment instruments were used to document worker gain from the evaluator's perspective. We were attempting to document gain in both workforce education and general literacy from both quantitative and qualitative viewpoints as well as to document improved productivity. Several instruments were piloted to find the best mix which would be both informative and non-intrusive to formatively evaluate the curriculum. This also would provide a triangulation on the worker's perceptions and the instructors' perceptions as measured by the informal procedures discussed above.

Initially, a standardized reading test (the *Hadley Press Adult Placement Indicator*) was piloted as a quantitative indicator of general literacy performance level. The *Adult Placement Indicator* satisfied our non-intrusive criterion since it was typical of most traditional general literacy measures and our workers reported being comfortable with its format. Inadequate correlation was sometimes found, however, between performance on this instrument and perceptions from the workers or the instructors. Moreover, this instrument failed to aid us in assessing worker ability to read job-related materials.

Therefore, we developed a cloze test as a measure of workforce education performance. Our cloze test was created by taking a passage from the working context and deleting every fifth word. The student must fill in the blank with the original word to the best of his or her ability. The cloze test we developed was based on a passage taken from a newsletter distributed to all employees on a monthly basis (see Appendix B for a copy of the cloze passage). We selected this newsletter since the literacy task analysis identified little if any print job-specific to the Custodial Job Family. This newsletter was as close as we could get to job-related print and success in the class should improve performance in reading the newsletter. However, a readability analysis of the passage suggested it was above 12th grade level. Still, this was typical of the print available to these workers in the workplace.

For all the *Reading/Writing Improvement* mini-courses, the workers and the instructors reported being very uncomfortable with the cloze task, and the workers' performance reflected it. All workers performed at the frustration level for this material. This was not unexpected given the readability level of the text. On the other hand, for the *Clerical Skills* mini-course, the workers were better readers and thus were more comfortable with the cloze task. Most of the workers performed at the instructional level on this task.

While a cloze task is theoretically sound and measures the reading process more directly than the traditional product-oriented Adult Placement Indicator, it was not sensitive enough to measure the workers' ability in the *Reading/Writing Improvement* mini-courses. Had we re-written the workplace related passage to a lower readability level, the workers might have had more success with it. It might have been more sensitive to their abilities and the change in these abilities over the course of the instruction. Therefore, we delay our recommendation on the use of the cloze test as a measure of workforce education until others have an opportunity to use it in workplace-related material that is written at an appropriate readability level.

To address this sensitivity concern, for the last two iterations of the *Reading/Writing*

Improvement mini-course, we used both a cloze test and the portfolio-based qualitative assessment instruments to measure performance gain. These portfolio-based quantitative assessment instruments seemed to be more sensitive for measuring worker performance gain. Moreover, if one could use these continually throughout a class, we believe they would also help inform instruction better than the cloze or the traditional general literacy measure.

Additionally, to address the sensitivity issue, we used a Writing Apprehension scale (see Appendix B) in both the *Business Writing and Clerical Skills* mini-courses and one of the *Reading/Writing Improvement* mini-courses. This instrument allowed us to assess reduced apprehension in writing following our instruction. Over the three mini-courses, we saw marked reduction in writing apprehension. We would recommend this instrument for informing the instructor, the workers, and the evaluators.

The thing I liked the least about the class was the write (sic) part, and now that I finish my write project I end up liking what I wrote. I thought I did a great job and I was very proud of myself.

Business Writing and Clerical Skills student

Custodian

To satisfy our concerns with attrition rates in traditional adult education programs, we measured retention rates for our seven classes. These rates averaged 91% which was significantly above the national average of 50% to 70 % retention (Chisman, 1990). We argue our participatory, collaborative approach to workforce education has much to do with this reduced attrition.

Finally, we measured the amount of time on task for evaluating our instructional effectiveness. While this measure is difficult at best to document, we asked our workers to approximate amount of time spent on independent practice utilizing the strategies taught both on the job and at home. Workers in the Reading/Writing Improvement classes and the Clerical skills classes reported spending an average anywhere from 3.3 to 10.7 hours per week over the term of the mini-course in independent practice. Much of our gain in worker performance can be attributed to this commitment on the part of the workers to practice outside of class. We argue the participatory, collaborative, relevant nature of our instruction fosters this commitment.

We would, therefore, recommend a variety of job-specific literacy measures. Specifically, we would recommend using a traditional literacy measure (like the *Adult Placement Indicator*) to screen students into the most appropriate level of instruction, to inform both workers and instructors about general literacy performance, and to document transfer of workforce education performance to general literacy performance for the evaluator. We would recommend utilizing a Writing Apprehension Scale (Daly and Miller) to document for the workers, instructor, and evaluator reduced apprehension about the writing process. We would recommend monitoring attendance to confirm whether the WIN instructional model will reduce attrition in other job settings. Finally, we would recommend documenting worker's time on task outside of class, both on-the-job and at home, to confirm our data.

In addition, we would recommend continued experimentation with the portfolio-based qualitative assessment instruments and the cloze test. The qualitative instruments have shown initial promise as instruments sensitive enough to quantify learner gain. However, their classroom use was limited due to the time constraints of this grant. Continued experimentation might concentrate on refining the instruments for ease in administration and ability to compare program gains. Continued experimentation with the cloze should include selecting or designing workplace related material that is more appropriate to the worker's performance level when creating a cloze test. While several workforce education experts believe the cloze test is the most viable measure of the reading process, our experience indicates that instructors, students, and program administrators found the cloze results to be of limited diagnostic and comparative utility. Continued experimentation with cloze test administration and interpretation is recommended.

Conclusions

The final responsibility of any workforce education effort is determining whether the needs of all concerned parties have been met and then communicating this to each stakeholder. One of the complicated aspects of workforce education is the number of stakeholders who may be involved. In our case, we had eight separate stakeholders for each mini-course: SWT, the WIN program staff, the USDOE, an outside evaluator, each of the workers, each of the businesses, the two Chambers of Commerce, and the workforce education field at large. In order to clarify these priorities, we solicited outside consultants, Paul Jurmo and Carol Clymer-Spradling. This proved to be extremely fruitful as we discovered that a grid showing "WHO wants WHAT MEASURE for WHAT PURPOSE" was not only simple, but useful for our formative summative evaluation.

Following this suggestion, we chose to satisfy these stakeholders on two levels. On a long-term level, SWT, the USDOE, an outside evaluator, the two Chambers of Commerce, and the workforce education field at large will receive this document to inform them in future decisions about workforce education implementation for small businesses. On a more immediate level, the WIN staff and the workers received the information to meet their needs for refining the curriculum and the instruction. Moreover, the *businesses* received attendance data to maintain their payroll records. Learner gain data was also reported on an immediate basis to the businesses. However, we reported it anonymously or in the aggregate. We found it vital to ensure that needed feedback was given to and received from each stakeholder at this immediate level and that this communication was fostered so that future courses could be developed.

In the end, we determined that five questions should be answered by this WIN demonstration project. These questions and the answers also document the success of this project.

Did we reach our service goals?

Our project as a whole served 232 workers in four job families from 33 separate small businesses. In this Custodial Job Family specifically, we offered seven iterations of three different mini-courses to 66 workers. Of those 66 workers, 60 successfully completed the mini-courses, for an average retention rate of 91%, significantly above traditional adult literacy retention rates of 50-70% retention (Chisman, 1990).

Was instruction successful?

The holistic, participatory nature of our instruction proved successful from both qualitative and quantitative perspectives. We were able to pilot quantitative and qualitative general and workplace-specific literacy measures and determine the effectiveness of each. We were able to develop informal measures of workforce education from the worker's, the instructor's, and the evaluator's perspectives. We were able to obtain from management a definition of productivity as being the workers' raising their education level which would allow them to apply for higher-level jobs.

Quantitative and qualitative test results confirm the project's effectiveness. Average general literacy gain based on the *Adult Placement Indicator* reached as high as .72 grade equivalent years for 30 hours of instruction. Average gain on the workforce education measure reached as high as 4.4% on the cloze test. This was a substantial gain for most of the workers who performed at the frustration level for this workplace material. Significant change in writing apprehension suggested improved self-confidence among these workers in their ability to write.

Perhaps more importantly, anecdotal reports indicated that workers found greater academic self-confidence and increased literacy skills by participating in WIN mini-courses. Workers reported feeling more free to participate in workplace conversations with peers and supervisors and better able to understand written directions. Several workers mentioned that they felt more able to participate in family literacy activities, such as helping children with homework or writing letters to teachers. Workers used independent writing activities to tackle subjects that had previously felt overwhelming, from learning how to operate a spreadsheet to coming to terms with an alcoholic family member. The breadth of their concerns and successes is best described by their own words collected in the student publications accompanying this set of instructional program guides.

Did instruction continue beyond the granting period?

The 18-month life of this grant was not long enough to deal with the whole of the community need for workforce education. WIN Advisory Council meetings and discussions with former and current workers indicate a continuing need for the types of literacy instruction covered in the mini-courses offered for this Custodial Job Family. As evidence of a continuation, the SWT's Physical Plant has committed to offering Reading/Writing Improvement, G.E.D. preparation, and Business Writing and Clerical Skills classes, starting near the end of this granting period and funded internally to finish off the course. Custodial workers seeking English as a Second Language classes are routinely referred to the public library.

Under what conditions is this project replicable?

WIN's instructional model has demonstrated its flexibility and replicability by being used in eight different mini-courses across four job families: Custodial, Child Care, Manufacturing, and Equipment Operators. Within the Custodial Job Family, the model was used for a *Reading/Writing Improvement* mini-course and a *Business Writing and Clerical Skills* mini-course. Two of these mini-courses were taught by two different instructors to test out the transferability to instructors and to workers from a number of workplaces. The Reading/Writing Improvement course was taught to both the SWT Physical Plant workers and a local Independent School District to show replicability of curriculum between different workplace settings. The holistic, participatory nature of our instructional model should be replicable to a number of sites outside the San Marcos area. The applicability of our specific lesson plans (as found in Appendix B), however, will depend to what degree your workers, business climate, and other resources match our programs.

How were the project results disseminated?

The WIN demonstration project has produced several tangible end products. This guide contains a narrative of our process for developing mini-courses for Custodial Job Family workers, course outlines and lesson plans, sample administrative forms, and a selected bibliography. Student Publishing, original qualitative and quantitative assessment instruments and accompanying user's information are both published in separate books accompanying this set of instructional program guides. Similar guides exist for mini-courses for the Manufacturing, Child Care, and Equipment Operator Job Families. The mini-courses for the Manufacturing Job Family teach mathematical constructs from basic operations, to working with decimals, percentages, and fractions, to reading blueprints. The mini-courses for the Child Care Job family teach strategies for accessing print resources to solve job-related problems as well as writing to apply for certification. The mini-courses for the Equipment Operators Job family focus on passing job-related certification examinations. Within each guide, program implementation strategies from both an administrative and an instructional viewpoint are also provided. In addition, the qualitative assessment guides has been disseminated to workforce education practitioners. It is offered as a promising formative instrument, and we hope that practitioners around the nation will use it and inform us of their results so that the instrument may be further refined.

There are several important reasons for a thorough dissemination of this project's results, and several different strategies are required to accomplish such a dissemination. One need was to create good public relations for the project and its partners. To do this we have been in contact with various state and local news agencies. This is a successful literacy program that needs to be part of the community consciousness. We would recommend you promote your workforce education program to solicit future endeavors.

The group believes meaningful literacy programs must be developed with input from all sectors of the community, he said, adding that literacy will "enhance the quality of life of San Marcos through the development of the capabilities of its citizens."

San Marcos Daily Record newspaper

article about San Marcos Literacy Action Meeting

July 8, 1992

Next, we wished to benefit and strengthen the newly emerging field of workforce education. For this, we needed to produce publications for a professional audience and make presentations at relevant conferences. This audience of experts helped us through peer review to refine our own program. The qualitative assessment instruments were introduced at a workforce education conference in Dallas, and the WIN instructional model was presented at the national COABE conference in Bismarck, ND at the annual national meeting of the National Association of Developmental Education in San Antonio, TX at the annual meeting of the College Reading and Learning Association in San Francisco, CA, and at several state and regional conferences.

Next, and perhaps most importantly, this material should be used in a continuing effort to educate the business community about the need for workforce education and the resources

which are available to meet that need. In order to do this, we have disseminated this instructional program guide to national workforce education organizations. WIN staff plan to adapt the material presented in the guides to formats appropriate for business trade journals and other commercial media. We must cultivate an understanding of business needs and develop a presence within business-oriented organizations. This will help us create the true business-education partnership needed to guarantee this country's economic future.

Summary

Our project demonstrates that a holistic, participatory, process-oriented workforce education program created in partnership with a small-business community within a small city can meet the needs of both employees and employers in overcoming the skills gap currently existing in business and industry in this country. Furthermore, we assert that the participatory approach is essential in developing those Information Age skills like problem-solving, teamwork ability, and communication skills. In addition, the process-oriented rather than content-oriented nature of our instructional approach will support the growth of workers who must be flexible enough to cope with a constantly changing work environment by transferring their learning skills to each new situation which calls on them to master a new machine, work comfortably with a new process, or make a positive contribution to the creation and evolution of high performance work organizations.

*The cycle is one of confirmation-evocation-confirmation.
Midwife-teachers help students deliver their words to the
world, and they use their own knowledge to put the students
into conversation with other voices- past and present- in the
culture.*

*-Belenky, Clinchy, Goldberger, Tarule
Women's Ways of Knowing*

Appendices

Appendix A: Sample Course Outlines and Lesson Plans

Appendix B: Evaluation Forms

Selected Bibliography

Workforce Skills

Background Theory

Practitioner Resources

APPENDIX A

SAMPLE COURSE OUTLINES AND LESSON PLANS

Business Writing/Clerical Skills Course Outline

Monday, Friday, 1-2:30 or Tuesday, Thursday, 9:30-11

Practice times: Wednesday, 5-6:30. Other times as arranged. The more you practice, the more you learn!

Week One

- assessment
- registration
- Mac tour
- typing intro
- discuss practice times

Week Two

- typing
- filing
- taking phone messages
- discuss final project format

Week Three and Four

- review computer use
- begin generating database fields for final project
- what kinds of questions need to be answered
 - what kinds of resources need to be tracked
 - discuss using portfolio to document individual goals

Week Five

- brainstorm ideas for group projects
- generate list of resources
- generate types of communication appropriate for resources
 - letters
 - memos
 - phone interviews
 - face-to-face visits
 - written surveys
- business letter format
- journal re: portfolio criteria

Week Six

- delegate individual parts of group projects
- draft questions to be answered or outline of writing
- discuss portfolio criteria

Week Seven

- access resources for project

Week Eight

- gather info
- draft paper

Week Nine

- continue gathering data and revising

Week Ten

- report data to class via read-arounds
- writer's workshop format for peer editing

Week Eleven

- report data to class via read-arounds
- writer's workshop format
- portfolio/progress review

Week Twelve

- revise final project by pulling all the pieces together

Week Thirteen

- portfolio review
- IEP review
- editing for final publication, including formatting

Week Fourteen

- post-testing
- portfolio review
- IEP review
- **graduation party!**

SAMPLE LESSON PLANS

Week Two

Day One

Focus/Individual: 20 min

computer work

Modelling and Small Group Practice: 70 min

“Today, we’re going to jump into filing and message-taking. Let’s practice with each other first. We’ve talked about the idea of doing a group project in here. Because you’ll be working together, you might want to be able to get in touch with each other. Let’s brainstorm what kind of information you need to know about each other, then we’ll practice getting information over the phone and filing.”

Write down responses on board as they occur. Examples are name, phone at work and home, good times to call, address, and birthdate (for easy numerical filing practice.)

After responses are down in rough fashion, ask for additions, deletions, or other changes. Then ask for the order they should be in. What’s most important to put on top of filing card, what should come next, what makes sense to group together.

“The reason we’ve spent time together coming up with the order and kinds of info. we need is to make an organized system. Everyone needs to use the same system, or filing won’t work.”

“Now you know what you want to find out from each other. Let’s get that info. all together by pretending to do phone interviews. I’ll do the first one, but everyone write down the info. I get. If you have any questions for the person being interviewed, wait until the end of the conversation, so that the people on the phone have a chance to ask questions first. Everyone’s going to get a chance to ask and answer questions, and by the time we’re done, you’ll all have a class Rolodex.”

Hand out 3x5 cards.

Model soliciting information over phone, and reading back message to clarify.

Ask for questions and comments, then have students practice interviewing one another until whole group has had turn. After each interview, give rest of class chance to clarify any missed info. Comment on strong or weak telephone etiquette.

“OK, now you’ve got a whole bunch of files in front of you. How are you going to organize them?” Get suggestions from the group, and agree on one method. Have everyone do that on own, to review next day.

Individual Practice: 10 min

File cards on own.

Day Two

Focus: 15 min

"Pull out your notecards of student information. Make sure they're filed alphabetically by last name, and that your initials are in the bottom right corner."

"Switch cards with a partner and check each other's work. If you find what you think is a mistake, talk it over together to see if you can come to an agreement."

Ask for a volunteer to read out their name order, and write last names on board. Make sure all are in agreement.

Ask for any discrepancies; go over any tricky situations which present themselves.

"What other way could you organize these cards? Keeping your partner's cards, re-file them in another fashion, such as by birthday."

Give cards back to original owner, and everyone check.

Again, ask for volunteer to read dates, and everyone come to agreement. Be sure dates are filed chronologically within same month.

"Other questions about filing? This is really about all you need to know! If there are tricky situations, you'll want to be sure you ask your office manager."

Large group: 10 min

Review purpose of final project. Go over library examples re: format, sources of information. Suggest similar formats of project and how they'll meet goals.

Small group: 30 min

"Look over library examples to give you an idea of what your final project can look like or things it can include. Jot down the kinds of information you want to leave class with, or that you want to share with students in the next class. Remember, this is something you want to write down and share, not specific skills you'll leave with, like improved typing. Be sure to think big! You'll have all semester to work on this, and lots of people to help."

The instructor will have to do A LOT of facilitation to help students formulate questions.

Large group: 20 min.

Using computer projector and MORE, record all groups' ideas of questions to answer for final projects. Type in as they're read, then demonstrate how to group ideas under subheadings.

Print out brainstorming and make copies for everyone.

Ask students to take home handout and prioritize class projects: 1 by favorite heading, 2 by next favorite, etc. Let them know they can add and change ideas, too.

Class Feedback: 15 min

Using MORE and computer projector, if desired, get group feedback on what liked and disliked about class. Discuss any changes suggested by brainstorming.

Week Three

Day One

Focusing: 10 min

Collect class feedback
Ask again re: parking permits

Large group: 30 min

Tally priorities of final project
Consensus re: format of final project, general questions to be asked
Define journal re: final project -- questions, comments, particular piece you'd like to do
Saving to folder

Individual: 50 min

Journalling
Fill out Individual Education Plans with instructor
Mac tour and typing practice

Day Two

Focus: 10 min

Pull up journal and pull out notes on final project and your own goals. Jot down some notes re: what you'd like answered in final project.

Large group: 30 min

Just like we decided on topics of information to include in our class filing cards, we can do the same with questions to be answered for our final project. To help us keep track of information from everyone, we can put all the info. in one organized system, and a computer lets us do that easily.

When you do filing on a computer, you use a program called a database. There are many different database programs; the one we'll use is called Microsoft Works.

Using computer projector, boot up Works and start getting class ideas of dbase fields.

Individual: 25 min

Using MSWorks, create your own dbase fields for areas you'd like to keep track of your progress in. Save this file to your student folder.

When you're done, you can practice typing or do any other classwork you deem appropriate.

Group feedback: 15 min

Using computer projector, come up with things liked and disliked about class. Discuss any changes suggested.

Week Ten

Days One and Two

Announcements: 10 min

- April 1 financial aid deadline
- Any issues left over from last week?

Modeling Revision: 15 min

Today, we're going to start the revision process on our first drafts. What kinds of things do you want to look at to make changes?

Get group input and map re: content vs. mechanics

Ask for what areas they've found tricky or are unsure about

It's hard to make suggestions for improving your own piece, so we're going to work as a group to get lots of suggestions for improvement. Everybody's in same boat, so let's all try to be as honest and helpful as possible. Think of the comments you'd like other people to make to help you make your writing as good as possible.

Which revision areas do you want to concentrate on first?

Make or hand out revision comments checklist.

What we'll do for the first part of class is take a couple of volunteers who'll read their drafts, and we'll all listen to make revision comments. You may want to write down notes on your checklist or the draft so you remember what you wanted to suggest at the end of the reading. Remember to point out both good points and suggestions for improvement.

After we go through that process a few times, we'll break up to do individual revisions, or you can work with your partners for more editing.

Group Editing: 15 min

Hand out copies of all student drafts.

Get a volunteer who wants to read her draft.

Remind everyone that we're looking for content and organizational suggestions like those we've identified on the handout.

Everyone take just a few minutes to read draft silently; volunteer notes particular questions she has for peer editors.

Volunteer reads draft aloud and can make comments during the process.

Peer editing discussion.

Repeat with new volunteers as time permits.

Individual Editing: 45 min

You've all seen examples of ways writing can be changed after the first draft. Now is your chance to go back to your own work now and apply the suggestions we've talked about to improving your own work.

Remember, if you're making changes on the computer, save this draft as a new version so that you'll have copies of all the drafts in your portfolio.

Revision Checklist
Business Writing/Clerical Skills

Content

Has one main point	not really	sort of	yes, clearly
Provides adequate examples or supports to convince reader	not really	sort of	yes, clearly
Organizes examples clearly	not really	sort of	yes, clearly
Uses appropriate language for audience	not really	sort of	yes, clearly

Mechanics

Proofreads adequately for audience	not really	sort of	yes, clearly
Revises all major grammatical errors	not really	sort of	yes, clearly
Revises all major spelling errors	not really	sort of	yes, clearly
Uses appropriate format for purpose and audience	not really	sort of	yes, clearly

READING AND WRITING IMPROVEMENT COURSE OUTLINE

- Week 1 Introduction of class
Pre-testing
Setting up reading themes
- Week 2 First Reading
Discussion of reading strategies
Comprehension Questions
- Week 3 Discussion of individual writing topic
Brainstorming ideas
Organizing ideas before a first draft
- Week 4 Writing first draft
Revising drafts
Final Draft
- Week 5 Second Reading
Discussion of reading strategies
Comprehension Questions
- Week 6 Discussion of individual writing topic
Brainstorming ideas
Organizing ideas before a first draft
- Week 7 Writing first draft
Revising drafts
Final Draft
- Week 8 Post-testing
Book distribution
Wrap-up
Party

Reading and Writing Improvement Lesson 3

Objective

reading comprehension
discussion of strategies

Large group discussion and modeling:

Engage prior knowledge:

read the title
What do you already know about that topic?
map on board

Read the article

instructor read 2-3 paragraphs aloud (think-aloud a little)
if all is well, have students read silently

Oral re-telling

What is this article about?
What is the main idea? How do you know that?
What were some things that were about the main idea?

Strategies for reading: GETTING MEANING FROM CONTEXT

choose 3 words from text that are hard to understand
think-aloud modeling of getting meaning from context

about context clues:

you won't always know the meaning
you don't have to know the meaning of all words
some words are more important than others

Small group practice

choose 3 words from text that are hard to understand
in small group come up with what you think the meaning is

Independent Practice:

separate articles to read using context clues
as time permits, practice in math workbooks and computer work

Reading and Writing Improvement Lesson 4

Objective

review of reading strategy
reading comprehension questions

Large group discussion

Review of reading strategy: GETTING MEANING FROM CONTEXT

What were the ways that we learned to help us understand words we don't know?
Do we need to use that strategy for all words or just words we think may be important?

Individual Practice

Reading Comprehension Questions

Introduction

Answering questions individually for about 1.5 hours (See sample article and questions on next pages)
instructor monitoring -- facilitate any difficulties using joint think-aloud process

When finished students choose math, computers, reading, or writing from available resources

Workers believe they are vital but unnoticed

By A. Phillips Brooks
American-Statesman Staff

It has been called a city within itself, employing nearly 20,000 people in virtually every profession imaginable.

One of Austin's largest employers, the University of Texas at Austin most often is known for its scientists, scholars and students. But the majority of UT-Austin employees are not the teachers, but the people who keep the university humming.

"The university is like a microcosm of a city," says Linda Millstone, assistant director of the Equal Employment Office for UT. "Many people think we have summers off, but that's not the case for most employees here."

In many ways, UT-Austin is like a small city. It produces its own power and fuel. It has its own police, fire marshal, trash collection system, radio station, health clinic and telephone service. It is self-sufficient in everything from fueling and repairing its 600 cars and other vehicles to blowing glass test tubes for its chemistry labs.

Workers in lesser-known jobs, such as those in the Physical Plant, utility department, housing and food service or general libraries, "do so many things to keep the university running," says Manuel Villanueva, a supervisor in the furniture repair shop of the Physical Plant. "But people just don't know we're here."

At a time when UT officials are making budget plans that anticipate revenue problems, that anonymity concerns some employees who feel their work is vital to the university but may not be recognized as such.

"We really feel threatened when they talk about budget cuts," says James Arnold, a supervisor in the solid waste division. "It seems like we are the small ones on the totem pole, but, when cuts are made, they always start here."

Budget Director Danny Fletcher says the employees have some reason for concern. "President Cunningham has made it a priority that teaching and educational services be protected as much as possible," Fletcher says.

When the state Legislature cut about \$1.2 million from its appropriations to UT-Austin in 1991, the university eliminated more than 60 staff positions — mostly clerical and Physical Plant jobs.

In 1990-91, state funding provided for 3 percent merit raises for UT faculty but no money was provided for raises for staff. Virtually all UT-Austin employees are state employees, because the university is a public institution supported by public tax dollars.

At any given time, UT-Austin has as many as 20,000 employees on its payroll, including full-time, part-time, temporary, appointment and contract workers.

These employees are clustered into two main job categories: classified and non-classified.

About 40 percent of UT employees are in non-classified positions. This category includes faculty, executives, administrators and certain professionals such as attorneys and counselors. Faculty make up about 14 percent of all university employees.

A key characteristic of the non-classified job category is that these positions have no minimum or maximum pay limits.

About 60 percent of UT employees are in classified jobs. This category includes professional, technical, clerical, service and maintenance employees. Trash collectors and traffic guards would be in service and maintenance.

A key characteristic of the classified job category is that these positions have a clearly defined salary range for each position based on a job description and years of experience, UT personnel officials said. The pay system is similar to the one used by other state agencies, says Millstone of the employment office.

For example, a glassblower is considered a classified employee. At the highest level, a glassblower would be paid \$48,264 a year. A glassblower at the lowest level would be paid \$14,712.

"There are over 500 job titles that are called classified," Millstone says. "This is a beautiful campus. It's not (professors) who are out there pruning the bushes, cleaning up the grounds or making sure there is no green mold in the fountain."

The average salary for classified employees is \$19,896, although salaries can range from minimum wage — \$9,012 a year — to as much as \$82,440. Clerical assistants or students working in the Texas Union might hold minimum-wage jobs, while researchers, scientists and engineers often hold the highest paying positions, says UT Personnel Director Bill

Wallace.

Classified workers can be found in service and custodial jobs at the Texas Union, where 340 employees work. The library system, one of the nation's largest, employs 836 classified employees who perform clerical and administrative duties. At the utility department, 290 classified employees operate massive gas or steam turbines, install telephone systems and do various other jobs.

The Physical Plant, which is on Manor Road and 26th Street, has the largest number of classified employees — about 1,141 — under one roof. Some of those jobs include collecting trash, refinishing furniture, buffing cabinets, growing plants, maintaining grounds and buildings, and repairing vehicles.

On the main campus, faculty members talk about salary levels and pay raises, and students talk about class sizes and the quality of services such as counseling. At the Physical Plant, employees have issues too, and, like those on the main campus, many of these issues trace back to money and the university budget.

"We're not treated as skilled labor," says Villanueva, looking out over a storeroom of refinished antique tables and chairs, couches stripped down to their frames and newly sanded desks.

"Our jobs are similar to those in the carpenter shop. But they (carpenters) are skilled, and we are not," Villanueva says.

Wallace says UT doesn't classify its employees as unskilled or skilled, but says that typically, technical or professional jobs start at higher pay ranges, similar to the state's pay plan.

Gerald Schroeder, a manager in the personnel department who heads the compensation and employee relations division, says salaries are largely determined by market factors, not the type of job. Generally, the higher the requirements, the fewer qualified job candidates, he and others say.

Another issue among some staff is the distribution of minorities throughout the ranks of UT employees. University officials says minorities fill 23.4 percent of UT's 8,282 full-time jobs.

Some staff members say, however, that a high proportion of minority employees are clustered in the lower-paid classified jobs. UT officials would not specify how many blacks and Hispanics hold

service and maintenance positions but did say those groups are overrepresented in those jobs compared with the numbers of blacks and Hispanics in other jobs at the university.

Records show few minorities are among the 396 executives employed by UT-Austin. Included in this group are vice presidents, deans, department heads and directors. Fourteen, or 3.5 percent of those 396, are black; nine, or 2.3 percent, are Hispanic; and 370, or 93.4 percent, are white. The remaining 0.8 percent are Asian or Native American.

In explaining why few blacks and Hispanics are in top administrative positions and professional jobs, Millstone says Texas' labor force of skilled, technically qualified minority workers is considerably smaller than its 37.6 percent minority population.

Schroeder says efforts to hire more minority workers have been hindered by an uncertain economy that not only has slowed attrition but also has increased the pool of job applicants. That increase has come especially among candidates who have lengthy experience, more training and a higher level of education.

"In many cases, we have people applying who are qualified way beyond the minimum requirements," Schroeder says.

Although they worry about the future and how budget problems might affect them, most of UT's classified workers know that the university cannot cut much from their ranks.

Mehran Daniels, supervisor of transportation at the Physical Plant, says workers in lesser-known jobs are the "backbone of UT."

"They couldn't function without us," says Daniels. "When the heat goes out, the air conditioning doesn't function or the toilets flow over, we are called. We provide many of the basics needed for survival."

Arnold, the supervisor in the solid waste division, says: "President Bush, the president of Mexico or the Queen of England can't come here until we make the preparations."

READING COMPREHENSION QUESTIONS

1. Tell me what this article is about. Be sure to include examples.
2. In your article find one or two sentences that best describe the main idea of the entire article. Draw one line under that sentence.
3. In your article find three details which support that main idea. Put two lines under each of these details.
4. Draw a map or make an outline of the most important points of this article.

5. According to the article, how many employees does UT have on its total payroll?

6. Why do you think that state funding provided merit raises for faculty, but not staff?
Your answer can include information from both the article and your own opinion.

7. What similarities or differences do you see between the information in the article about UT and your experience with Hays Consolidated ISD?

Reading and Writing Improvement Lesson 5

Objective

discussion of individual writing topic
brainstorming ideas
organizing ideas before a first draft

Read-aloud (10 min)

Instructor or student reads fun reading passage aloud to share sounds of written language and variety of reading material available.

Large group discussion and modeling

discussion of reading material: model brainstorming on board

What did this stir up for you?

Would you like to change anything about your schooling?

Would you like to change anything about your children's schooling?

How do you feel about the school district providing classes?

discussion of writing process:

brainstorming ideas, organizing ideas, first draft, revising drafts

discussion of brainstorming:

model how I would do it for my own topic

see flip chart for ideas

pick any idea you want to write about and write lots of ideas from there

keep brainstorming and pick the best ideas at the end

Small group practice

brainstorm several ideas individually

circle the ideas you like the best

get with a partner and look over each other's

repeat brainstorming from partner's circled idea

Individual time:

writers: continue brainstorming several ideas, can begin organizing

math: copy pages out of texts

computers: work with Pam on entering brainstorming on computer

Reading and Writing Improvement Lesson 6

Objective

Writing strategy: Organization of ideas before draft

Large group discussion and modeling:

discussion of organizing ideas

Map or outline:

model family in a map and an outline

show how this can be done for a paper, using Virginia's essay (attached)

Small Groups:

do "food" exercise:

hand out attached list of food terms

model 1 way to organize

have students decide alternative groupings-

map & outline on board

Individual Work:

model brainstorming and organization for teacher's essay

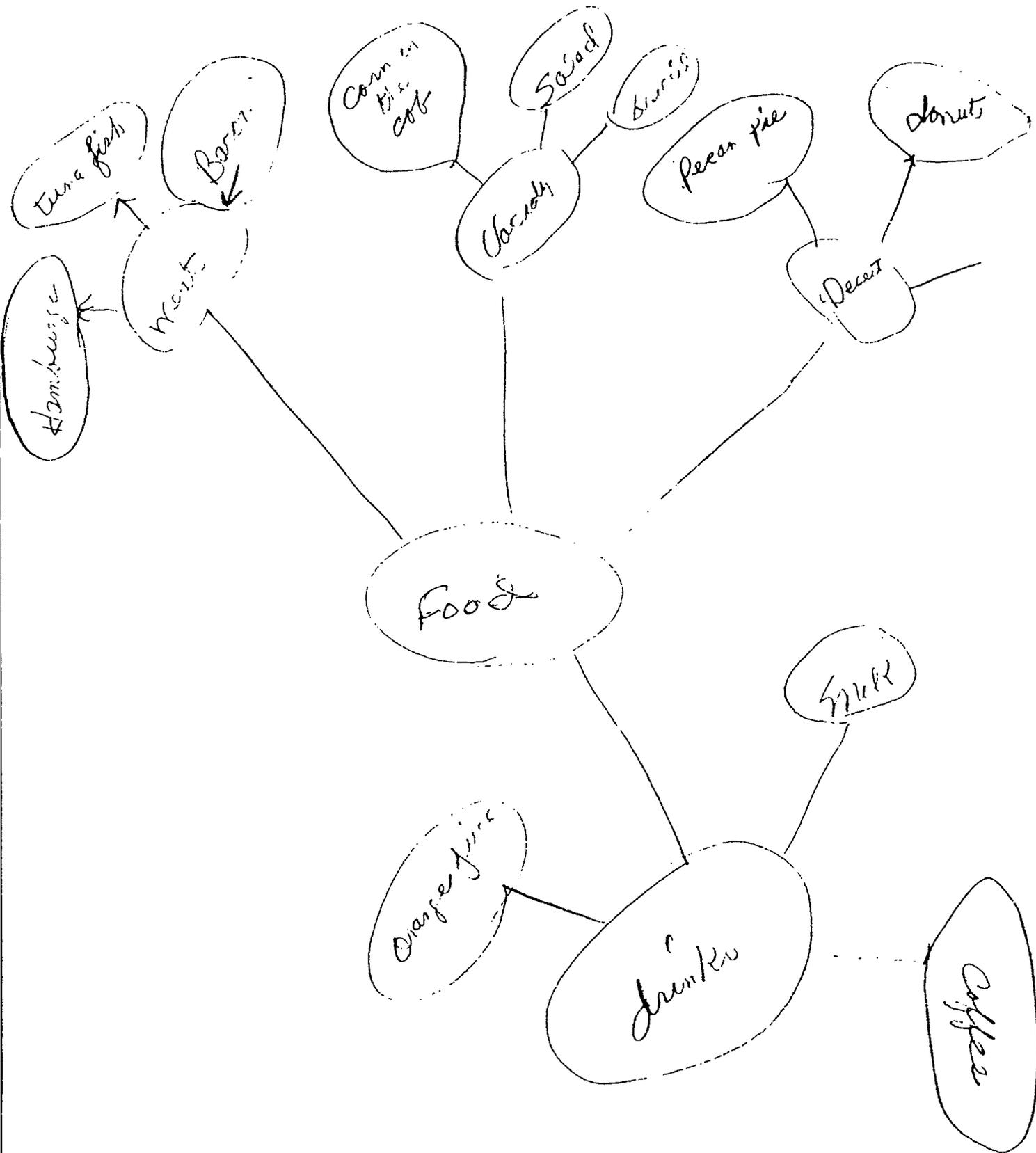
student organize and start first draft for homework

math & computers

food exercise

Directions: With the members of your group organize these food items in any way that you choose.

- orange juice
- steak
- tuna fish sandwich
- baked potato
- coffee
- broccoli
- chocolate cake
- corn on the cob
- milk
- bacon
- french fries
- salad
- eggs
- grilled fish
- fruit salad
- hamburger
- bran muffins
- lasagne
- tacos
- pecan pie
- donuts



Reading and Writing Improvement Lesson 7

Objective

Writing strategy: writing the first draft

Large group discussion and modeling:

engage prior knowledge:

- When you have written things before, what was hard about it?
- Did you have to change anything?
- What did you find difficult in writing your first draft (homework)?
- What did you find easy in writing your first draft (homework)?

discussion of writing the first draft:

- model how to transform the organization into paragraphs
- when you write you may want to change things around in your organization

Small group practice:

- in groups look at what other students have written for homework
- make copies for each person in group if necessary
- students focus on how the other students transferred the organization to paragraphs

Individual practice:

- each student work on his or her writing project
- instructor conference with individuals on progress

Reading and Writing Improvement Lesson 8

Objective

content revision
mechanical revision
responding to other students' work

Large group discussion and modeling:

engage prior knowledge:

On your first draft are there any things you would like to change before it is as good as you can make it? Like what?

map responses on board- cluster content responses and mechanical responses to show how there are two types of revision

discussion of content revision

model with a sample paper how to change the words, add words, expand ideas, cut out some ideas, etc.

discussion of mechanical revision

model with a sample paper how to change spelling, grammatical errors, etc.

discussion of how to respond to other students' writing

see handout

model with sample paper how to respond to someone's writing

Small group practice:

make 3 copies of all students' writing

break into groups of three- read and respond to other's writing

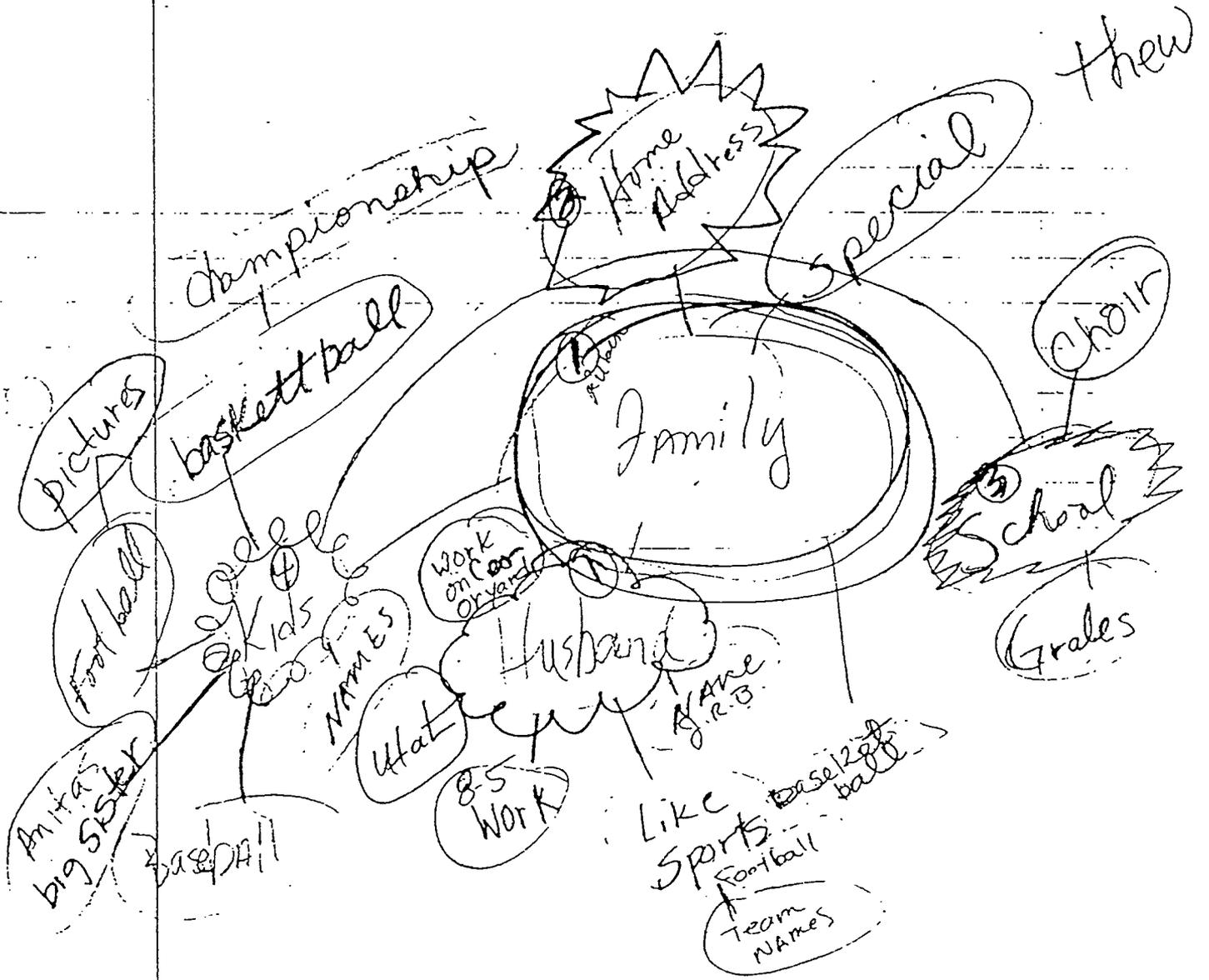
be sure all students are able to respond & that consent of author is being given in all changes made

encourage students to explain and teach each other about their suggestions

Individual practice:

work on revision of writing projects

PRODUCTS
OF THE
WRITING PROCESS



My Special love ones

My husband Jose Reuben Bravo he was born in Utah. He's a very hard working man. He works everyday Monday - Friday 8 a.m. - 5 p.m. After five he get home and works ~~around the house~~ ^{at home}. He just won't sit-down.

When I make supper I have to go find him because ~~I~~ ^{he} always working on the yard, or on ~~the~~ ^{his} car or fixing something for a friend.

He's a sports fan he likes football, ^{Basketball} his ~~favorite~~ ^{favorite} teams are Sparan, Oilers, Riders. ~~and others~~ I think that's the only time

I see him sitting ~~down~~ ^{and} relaxing.

We live in a trailer in ^{San Marcos} ~~San Marcos~~ ^{two days} ~~one day~~.

We have three kids and I am very proud of them. My eldest ^{is} ~~is~~ Jose Roberto Jr. ^{he's} ~~is~~ a A + B student ^{he's in 10th grade} ~~he's~~.

like sports. he has played football Basketball, baseball. ^{in basketball he won 2nd place} My Daughter

Anita Maria she is a B student she like to hanging around her Big-sister Lou. Lou is a South West Texas Student they like going to the Sower park and to her Dorm. Anita has played ~~Basketball~~ ^{in base. Basketball she won 1st place champion} and is now playing softball ^{she has played} games and has not lost one yet.

My Youngs Ricardo same he's seven year old he's in the first grade ^{he's} ~~he's~~ he is learn to read he bring ^{home} a book to read everyday.

he's 12 years old

she's 11 years old

Champion 1500

he also plays baseball. This is his first sport
 he has ever been in. He likes ~~play game~~ he
 likes ^{making} scores. He also likes us cheering him on.
~~at every game I have to take my camera~~
~~likes take pictures~~ ~~of them~~.

You can say that we all like
 sports. Maybe one
 day they will be famous.

Faviret
 fawer
 fayvorit

My Special Love One

My husband Jose Ruben Bravo. he was born in Utah he's a very hard working man. He works everyday Monday ~~to~~ Friday 8 to 5 after five he get home ~~and~~ ~~and~~ and works on thing at home.

~~He~~ He just wont sit down when I make supper, would have to go ~~find~~ him ~~at~~ ~~the~~ ~~house~~ he's always working on the yard or on the car or fixing some thing for ~~some one~~ ~~else~~ a friend.

edit
edit

~~He's like~~

He's a sports fan he like foot-ball he's (power) teams are Sparer, Aliens, Riders. I think that the only time I see him sit and Relax.

Southern

My Special Love ones

~~My Family~~

My husband Jose Luis Braw
 he was born in ~~Utah~~ Utah
 He's a very busy man he will
 go to work every day Mon - Fri
 when ~~he comes home~~ after ~~5:00~~ 5:00
~~he goes home and he won't stop~~
~~working~~ he's always looking for
 some thing to do. He'll work on
 the car or outside fixing something

adder

through
throw

sit
sitt
dhet
sit

My Special love ones

My husband Jose Ruben Bravo
 He was born in Utah. Hes a very hard
 working man. He works everyday Monday
 through Friday at 8 a.m to 5 p.m. After five
 he gets home and works around the house.
 He just won't sit down.

When I make supper I have to go
 find him because hes always working on
 the yard or on his car or fixing something
 for a friend. 5

Hes a Sports fan, he likes football,
 basketball, his favorite teams are the
 San Antonio Spurs, Houston Oilers, San
 Antonio Riders. I think thats the
 only time to see him sitting and relaxing.

We live in San Marcos and we are renting
 a trailer. We have three kids, two boys
 and one girl, and we are very proud of them.
 My oldest is Jose Roberto Jr. hes twelve years
 old. He is a A+ B student. He is in the
 six grade ^{he goes to Lamar.} He also likes sports. He has
 played football, basketball, and baseball. In
 basketball he won second place in the championship.

My youngest Anita Maria she is a
 B student, shes eleven years old she goes to
 Travis. She likes hanging around with her big
 sister Son. Son is a South West
 student. They met at school and they are
 going to the river park and to her dorm.
 Anita has played basketball and won first
 place in the championship. She is now playing

softball she has played six games and has not lost a game yet.

The youngest is Ricardo Jaime. He's seven years old and is in the first grade in Crockett.

He is learning to read and he brings a book home to read every day. He also plays baseball. This is his first sport he has ever been in. He likes making scores and he also likes us cheering him on.

You can say that we all like sports. Maybe one day they will be famous.

APPENDIX B

REGISTRATION AND EVALUATION FORMS

WORKFORCE INSTRUCTIONAL NETWORK

STUDENT REGISTRATION FORM

1. Name: _____ Date: _____

2. Place of employment: _____ Class name: _____

3. Job Title: _____ Supervisor: _____

4. Equipment Operated: _____

5. Number of years/months employed at current workplace: _____

6. Highest level of schooling: grade _____ High school diploma _____

GED diploma _____ Years of college _____ College degree _____

Other education or training: _____

7. Number of children: _____ 8. Are you a single parent? yes no

9. Did you grow up in a Spanish speaking or bilingual household? _____

10. Do you speak Spanish in your home today? (circle one)

always sometimes almost never never

11. Do you speak Spanish in the workplace? (circle one)

everyday at least once or twice a week almost never never

(WIN staff use only)

Pre-Test: _____ Post-Test _____ Hadley _____

Referral: Where _____ Why _____

Concurrent Enrollment (WIN & Place of Referral) yes no

Other Indicators: _____

Reading and Writing Improvement Class

Let's Get Started!

What is today's date?

What is your name?

What is your job title?

Where do you work?

Please take your time to answer the following questions. Be as honest and complete as you can. Use the back of this sheet or another piece of paper if you need more room. Your answers will help me know what and how to teach to meet your needs. Let's create a class together!

Why are you in this class?

What are the two most important things you want to learn from this class?

Do you think it is easy or hard to learn new things? What makes you think that?

What are your plans when you finish this class? Do you think you'll do your job any differently? Will you take other classes? Do you hope to get a promotion or different job?

Workforce Instructional Network

Individualized Education Plan

for

Date _____

Education/Learning Goals (both at work and home--now and in the future)

Pre-test Results

Areas I can teach others _____

Areas I can review _____

Areas I can study _____

Student Comments

Additional areas I'd like to teach others

Additional areas I'd like to review or study (for home or work)

Instructor Comments

Additional areas you could teach

Additional areas you might like to review

Student Placement (Present and Projected)

Enrolled in WIN course (titles and dates)

Referred to other programs (specify)

EMPLOYEE OF THE MONTH

Cindy Lomas has been named February Employee of the Month at SWT. She is the office _____ in the Music Department _____ she has been employed _____ February 1990.

Dr. Boyd, _____ of the Music Department, _____, "Cindy is an exceptionally _____ employee. When handling reservations _____ university facilities, she shows _____ highest level of interest _____ goes out of her _____ to assist individuals in _____ reservations for Evans Auditorium _____ UPACC."

Other music faculty _____ have praised Cindy for _____ help in their endeavors; _____ example, helping prepare grant _____ forms, and helping with _____ materials for the Wimberley _____ Series. She is very _____ to both students and _____ and has always expressed _____ good working attitude, even _____ extra deadline pressures have _____ placed upon her. Another _____ member speaks of her _____ being an exemplary employee. Cindy is unbelievably patient and pleasant in even the most trying circumstances.

Cindy comes from Bay City. Her husband, Scott, will be graduating from SWT in May. Cindy, Scott, and their five-year-old son, David, are anxiously awaiting a "new arrival" in May.

Congratulations, Cindy, on being named February 1992 Employee of the Month.

Employee of the Month

The October Employee of the Month is Don Anderson, Photographer, in News and Information Service. He began his employment _____ SWT on March 1, 1973. Don _____ presented a certificate for _____ service and dedication by _____ Leatha Minot, Vice President _____ University Advancement.

Nights, weekends, _____ -- if an event needs _____ be photographed then Don _____ there. Don rarely complains _____ the erratic schedule, although _____ routinely interferes with family _____ and plans. His good _____ makes routine "shoot sessions" less boring or tedious. Co-workers have labeled him the "unofficial ambassador for SWT" because of his private promotion of the university with members of the local media and the community.

Name _____

Date _____

Class _____

Writing Apprehension Scale
Daly & Miller

Directions: Listed below are some statements about writing. For each statement, please circle whether you (1) strongly agree, (2) agree, (3) are uncertain, (4) disagree, or (5) strongly disagree with the statement. There are no right or wrong answers to these statements; please circle the word that best expresses your own feelings about writing. While some of these statements may seem repetitious, take your time and try to be as honest as possible. Thank you for your cooperation.

1. I avoid writing.

strongly agree agree am uncertain disagree strongly disagree

2. I have no fear of my writing being evaluated

strongly agree agree am uncertain disagree strongly disagree

3. I look forward to writing down my ideas

strongly agree agree am uncertain disagree strongly disagree

4. My mind seems to go blank when I start to work on a composition

strongly agree agree am uncertain disagree strongly disagree

5. Expressing ideas through writing seems to be a waste of time

strongly agree agree am uncertain disagree strongly disagree

6. I would enjoy submitting my writing to magazines for evaluation and publication

strongly agree agree am uncertain disagree strongly disagree

7. I like to write my ideas down

strongly agree agree am uncertain disagree strongly disagree

8. I feel confident in my ability to clearly express my ideas in writing

strongly agree agree am uncertain disagree strongly disagree

9. I like to have my friends read what I have written

strongly agree agree am uncertain disagree strongly disagree

10. I'm nervous about writing

strongly agree agree am uncertain disagree strongly disagree

11. People seem to enjoy what I write

strongly agree agree am uncertain disagree strongly disagree

12. I enjoy writing

strongly agree agree am uncertain disagree strongly disagree

13. I never seem to be able to clearly write down my ideas

strongly agree agree am uncertain disagree strongly disagree

14. Writing is a lot of fun

strongly agree agree am uncertain disagree strongly disagree

15. I like seeing my thoughts on paper

strongly agree agree am uncertain disagree strongly disagree

16. Discussing my writing with others is an enjoyable experience

strongly agree agree am uncertain disagree strongly disagree

17. It's easy for me to write good compositions

strongly agree agree am uncertain disagree strongly disagree

18. I don't think I write as well as most other people

strongly agree agree am uncertain disagree strongly disagree

19. I don't like my compositions to be evaluated

strongly agree agree am uncertain disagree strongly disagree

20. I'm no good at writing

strongly agree agree am uncertain disagree strongly disagree

Writing Interview

Please respond to the following questions:

1. Are you a good writer? Why or why not?
2. What do you do before you start to write?
3. What do you do when you come to a word you don't know how to spell?
4. What do you do when something you write doesn't make sense?
5. What do you do when you need help?
6. If you were going to help someone learn to write, what would you do to help them?
7. Name someone you know who is a good writer. What makes that person a good writer?

WIN Formative Evaluation Form

1) The best thing about class this week was

2) Pick one sentence to complete:

This week, I learned

That was important because

This week, I didn't really learn anything important. Next week, what needs to happen so I can learn something useful is

3) The one thing I would like to change about class this week is

4) Other comments, gripes, suggestions, questions, etc.?

PRACTICE TIME OUT OF CLASS

Name _____ Date _____

Thank you for participating in WIN classes. We hope you're finding this class both enjoyable and useful.

As you know, we at WIN are very interested in how useful this class is to you right now. We'd like to know how often you can use the material and strategies we've discussed here *outside* of class. We'd appreciate it if you could use the form below to jot down any instances outside of class where you've used what we've discussed together.

Some examples might be time you've spent reading your textbook or doing individual practice assignments. Other examples are using new math or reading skills to solve a problem at work, or using new strategies to help your kids with their homework. Maybe something we talked about in class encouraged you to go to the library or drag open a book you hadn't read before. For however you've used ideas from this class at home or work, please jot down the **amount of time** you spent and a **short description** of what you did. One entry might look like this:

Monday 30 minutes doing practice sheet
15 minutes reading library book

<u>Day</u>	<u>Amount of Time</u>	<u>Description</u>
Monday		

Tuesday		
---------	--	--

Wednesday		
-----------	--	--

Thursday		
----------	--	--

Friday		
--------	--	--

Saturday		
----------	--	--

Sunday		
--------	--	--

**WORKFORCE INSTRUCTIONAL NETWORK (WIN)
Reading/Writing Improvement**

PARTICIPANT OBSERVATIONS

WIN is in the process of developing instruction for workers in various workplaces in San Marcos. Your comments about the class you have just completed will help us to better meet the educational goals of other workers and their employers. **Please be specific and honest in your answers. Thank you.**

1. When you enrolled in this class, what did you expect to learn?

2. What did you like best about the class?

3. What did you like least about the class?

4. What did you find most helpful?

5. What did you find least helpful?

6. Do you think that taking the class will help you in your job? How?

7. Do you think that taking the class will help you in your life outside of work? How?

8. How did you feel about the length of the course: too long, too short, about right? Why?

9. Do you have any suggestions on how to improve the class?

10. Are there other courses that you would like to see offered ?

11. Have you enrolled in another Adult Education program such as a GED class? Where?

12. What did you learn?

Thank you for your help!

See you in the Spring!

SOUTHWEST TEXAS STATE UNIVERSITY

Workforce Instructional Network

Be It Known That

Is Hereby Presented with this

CERTIFICATE OF COMPLETION FOR

Dated this day _____

101

School of Education
Center for Initiatives in Education



102

Project Director

Instructor

BEST COPY AVAILABLE

Selected Bibliography

WORKFORCE SKILLS

- Adult literacy: Helping Americans with midlevel skills prepare for the high-level demands of tomorrow* (1989). ETS Developments. (ERIC Document Reproduction Service No. ED 308 473)
- America and the New Economy, *Business Council for Effective Literacy*, No. 28, (1991, July), 1,6.
- America's Choice: High Skills or Low Wages*. Report of the Commission on the Skills of the American Workforce. Rochester, NY: National Center on Education and the Economy.
- Benton, L. & Noyelle T. (1992). *Adult illiteracy and economic performance*. Paris: Organization for Economic Cooperation and Development.
- Bernardon, N. (1989, January). Let's erase illiteracy from the workplace. *Personnel*, 66, 29-32.
- Bernstein, A. (1988, September 19). Where the jobs are is where the skills aren't. *Business Week*, 104-108.
- Bush, K. (1991, March). *Workplace literacy programs at North Harris County College*. Presentation at the meeting of the Rural Capital Area Community Partnerships for Literacy, Round Rock, TX.
- Carnevale, A., Gaines, L., & Meltzer, A. (1990). *Workplace Basics Training Manual*. A publication of the American Society for Training and Development. San Francisco: Jossey-Bass Publishers.
- Carr, Kathryn S. (1990). *Literacy in the workplace: A whole language approach*. (ERIC Document Reproduction Service No. ED 324 441)
- Census Tracts; Austin, TX: Standard Metropolitan Statistical area 1980 Census of population and housing* (1983). Washington D.C.: U.S. Department of Commerce.
- Copple, Carlo. (1991). QUALITY MATTERS: Improving the Professional Development of the Early Childhood Work Force. National Institute for Early Childhood Professional Development. NAECY. Washington D.C.
- Crosby, P. (1979). *Quality is free: The art of making quality certain*. New York: McGraw-Hill.
- Dreyfuss, J. (1990). The three R's on the shop floor: reading, writing, and work skills. *Fortune*, 12, 86-89.
- Dunn-Rankin, P., & Beil, D. (1989). *Workplace literacy programs: A review of the literature*. Honolulu, HI: Hawaiian Educational Council, Inc.
- Federal Register*, Vol. 54, No. 159, 34,418 - 34,421.

- Feuer, D. (1987, December). The skill gap: America's crisis of competence. *Training*, 27-35.
- Garland, S. B., Therrien, L., & Hammonds, K. H. (1988, September 19). Why the underclass can't get out from under. *Business Week*, 122-124.
- Harwood, R. (1989). *Closing the gap: Meeting the small business training challenge in Connecticut*. A Jobs for the Future, Inc. Report. (ERIC Document Reproduction Service No. ED 318 867)
- Herschback, D. R. (1988). *Linking with employment: Training from the perspective of employers*. (ERIC Document Reproduction Service No. Ed 303 623)
- Hugh, S. & Quesada, E. (1990). Everyone wins in partnership: Weber Metals, Inc., the Paramount School District and, especially, the Weber employees. *Personnel Journal*, 69 (10), 69-71.
- Hurst, J. (1988, Summer). Concern grows over workplace literacy. *Training Trends*, TPC Training Systems.
- Johnston, W. & Packer, A. (1987). *Workforce 2000: Work and workers for the twenty-first century*. Indianapolis, IN: Hudson Institute.
- Jurmo, P., Wiggerhorn, B., Packer, A., & Zeigler, W. (1989, January). How can businesses fight workplace illiteracy? *Training and Development Journal*, 18-24.
- Kerka, S. (1990). *Job-related basic skills, ERIC Digest No. 94*. (ERIC Document Reproduction Service No. ED 318 912)
- Kotkin, J. (1990, January). The skills crisis. *Inc.*, 28.
- Literacy begins at home (1989, April). *Business Council for Effective Literacy*, 19, 1-6.
- Lohr, S. (1992, April 26). The global economy's engines are out of tune and sputtering. *Week in Review, New York Times*.
- May, P. (1990). Back to basics. *Personnel Journal*, 69 (10), 63-69.
- McKenna, J. F. (1990, January 8). A little learning is a dangerous thing. *Industry Week*, 74-78.
- Mikulecky, L. & Diehl, W. (1980). *Job literacy: A study of literacy demands, attitudes, and skills in a cross-section of occupations*. Bloomington, IN: Indiana University, School of Education.
- Mikulecky, L. (1988). *Literacy for the workplace*. Indiana. (ERIC Document Reproduction Service No. Ed 294 164)
- Mikulecky, L., & Ehlinger, J. (1986). The influence of metacognitive aspects of literacy on job performance of electronics technicians. *Journal of Reading Behavior*, 18 (1), 41-62.

- National Alliance of Business (1987). *The Fourth R. Workplace Readiness*. Washington, D.C.: National Alliance of Business.
- Nussbaum, B. (1988, September 19). Needed: Human capital. *Business Week*, 100-103.
- Peters, T. (1987). *Prescriptions for a world turned upside down. Thriving on Chaos: Handbook for a management revolution* (pp. 3-45). New York: Alfred A. Knopf.
- Reich, R. B. (1991). *The Work of Nations: Preparing Ourselves for 21st Century Capitalism*. New York: Alfred A. Knopf.
- Ritter, A. (1990, February). Training wheels are turning. *Personnel*, 6-7.
- Ronin, D. (1989). *Rx for Texas: Staying in Business in the 90's*. Dallas: Taylor Publishing Company.
- Rutherford, B. (1989). The basic skills gap: Whose problem, whose solution? *Public Utility Forum*, 124, 13-17.
- Sherman, E. (1989, July). Back to basics to improve skills. *Personnel*, 22-26
- Skagen, A. (1986). *Workplace literacy*. New York: American Management Association.
- State of the State: Report Card Gives Texas Work Force Failing Grade, *Texas Business Today*, (1991, September) 1,3.
- Talking Heads: Issues and Challenges in Adult Literacy, *Business Council for Effective Literacy*, No. 30, (1992, January), 1,6
- Taylor, M. C., Lewe, G. R., & Draper, J. A. (1991). *Basic skills for the workplace*. Toronto, Ontario: Culture Concepts Inc.
- Texas Business Today (1988, November). *Results: Literacy Opinion Poll*. Austin, TX: Texas Employment Commission.
- Texas Employment Commission (1988, August). *Texas Jobs 1995, Employment by Industry and Occupation*. Texas Employment Commission, Economic Research and Analysis Department.
- Texas Employment Commission (1989, April). Businesses face new challenges as changing workforce emerges. *Texas Business Today*, 1-2.
- Texas Workforce 2000* (n.d.). Austin, TX: Texas Employment Commission.
- The large matter of small business (1990, July). *Business Council for Effective Literacy*, 24, 1-8.
- The Secretary's Commission on Achieving Necessary Skills (1991, June). *What work requires of schools: A SCANS report for America 2000*. Washington, D.C.: U. S. Department of Labor.

- Tooley, J., & Bernstein, A. (1990). Measures of change. *U.S. News and World Report*, 107-25, 66-67.
- Tools of the trade (1990, January). *Business Council for Effective Literacy*, 22, 5.
- U.S. Department of Education, Office of Vocational and Adult Education, (1992, May). *Adult Learning and Literacy: Workplace Literacy: Reshaping the American Workforce*.
- U.S. Department of Labor: Employment and Training Administration, (1990). *The School-To-Work Connection*. Washington D. C.
- U.S. Small Business Administration (1988). *Workplace literacy: Targeting the future. A report on the national conference on literacy*. (ERIC Document Reproduction Service No. ED 300 671).
- Wagner, L., (1990, October), America's Choice: High Skills, *Business Council for Effective Literacy*, No. 25, 1,6.
- Whitman, D., Shapiro, J., Taylor, E., Saltzman, A., & Auster, B. (1989, June, 26). The forgotten half. *U.S. News and World Report*, 106-25, 45-53.
- Workforce 2000 (1991). *A National Teleconference and Outreach Initiative On Improving America's Work Skills*.
- Zemke, R. (1989, June). Workplace illiteracy: Shall we overcome? *Training*, 33-39.

BACKGROUND THEORY

- Barrows, D. S. & Morris, S. (1989). Managing public policy issues, *Long Range Planning*, 22, (6) 66 -73.
- Belenky, M., Clinchy, B., Goldberger, N., & Tarule, J. (1986). *Womens Ways of Knowing: The Development of Self, Voice, and Mind*.
- Birkey, C. J. M. (1984). Future directions for adult education and adult educators. *Journal of Teacher Education*, 35 (3), 25-29.
- Blai, B., Jr. (1989). *Literacy quality of life in the United States*. Pennsylvania. (ERIC Document Reproduction Service No. ED 302 817)
- Boone, E., Shearon, R., White, E., & Associates (1980). *Serving personal and community needs through adult education*. San Francisco: Jossey-Bass Publishers.
- Boutwell, Marilyn. (1989). Partnership for Change. In A. Fingeret & P. Jurmo (Eds.) *Participatory Literacy Education. New Directions for Continuing Education*, 42. San Francisco: Jossey-Bass.
- Burnstein, L.H., Freeman, H.E., & Rossi, P.H. (Eds.) (1985). *Collecting evaluation data: Problems and solutions*. Beverly Hills, CA: Sage Publications.

- Castelli, J. (1989). How to close tomorrow's literacy gap. *Safety and Health*, 140, 54-57.
- Caverly, D. C., Burrell, K., Wedig, L., & Austin, M. (1992, April). Developmental education for a diverse workforce. Paper presented at Twenty-Fifth annual national conference of the College Reading and Learning Association, San Francisco.
- Chisman, F. P. (1989). *Jump start: The federal role in adult literacy*. Washington, DC: The Southport Institute.
- Chisman, F. P. (1990). *Leadership for literacy: The agenda for the 1990's*. San Francisco: Jossey-Bass Publishers.
- Chisman, F.P. (1992). *The Missing Link: Workplace Education in Small Business*. The Southport Institute for Policy Analysis.
- Collino, G. E., Aderman, E. M., & Askov, E. N. (1988). *Literacy and job performance: A perspective*. University Park, PA: Pennsylvania State University. (ERIC Document Reproduction Service No. ED 303 617)
- Cook, W. (1977). *Adult literacy education in the United States*. Newark, DE: International Reading Association.
- Costa, M. (1988). *Adult literacy/illiteracy in the United States*. Santa Barbara, CA: ABS-Clio.
- Educational Data Systems, Inc. (1989, April). What's the fuss about literacy? *Outlook*, Dearborn, MI: Educational Data Systems, Inc.
- Ehrlich, E. (1988, September 19). America's schools still aren't making the grade. *Business Week*, 129-135.
- Freeman, H. E., & Rossi, P. H. (1985). *Evaluations: A systematic approach*. Beverly Hills, CA: Sage Publications.
- French, J. (1987). *Adult literacy: A source book and guide*. New York: Garland Publishing, Inc.
- Greenberg, E. R. (1989, September). Some pointers on basic training techniques. *Personnel*, 22-26.
- Haley, A. (1990, September 2). Why reading matters. *Parade Magazine*, 28-30.
- Harman, D. (1987). *Illiteracy: A national dilemma*. New York: Cambridge University Press.
- Irwin, P. M. (1988). *Adult literacy issues, programs, and options. Updated*. Washington, D.C.: Clearinghouse on Adult Education and Literacy. (ERIC Document Reproduction Service No. ED 317 794)
- Krashen, S., & Terrell, T. (1983). *The Natural Approach*. Hayward, CA: Alemany Press.

- Lec, C. (1987, November). Educators of last resort. *Training*, 8.
- Literacy Volunteers of America (n.d.). *Facts on illiteracy in America*. Syracuse, NY: Literacy Volunteers of America.
- Long, H. B. (1982). *Theoretical foundations of adult education: Borrowings from other disciplines. Theory, innovation, and practice in andragogy, No. 3*. (ERIC Document Reproduction Service No. ED 228 463)
- Lytle, S., Belzer, A., Schultz, K., & Vannozzi, M. (1989). Learner centered literacy assessment: An evolving process. In A. Fingeret & P. Jurmo (Eds.) *Participatory Literacy Education. New Directions for Continuing Education, 42*. San Francisco: Jossey-Bass.
- Lytle, S. L. (1992, January). Living literacy: Rethinking development in adulthood. *Linguistics and Education*.
- Metfessel, N. S., & Michael, W. B. (1967). A paradigm involving multiple criterion measures for the evaluation of the effectiveness of school programs. *Evaluation and Psychological Measurement*, 27, 931-943.
- Mikulecky, L. (1987). The status of literacy in our society. In J.E. Readence & R.S. Baldwin (Eds.) *Research in Literacy: Merging perspectives* (pp. 211-235). Rochester, NY: National Reading Conference.
- Mosenthal, P. B., & Mosenthal, I. S. (1991). Mimetic dicuments: Process schematics. *Journal of Reading*, 34, (5), 390-397.
- Murphy, Jr. Clennie, and Wazler, Trellis (1981) Head Start: A Brief Review and Preview. *The Journal of Negro Education*. Vol. 58, No. 1, Winter 1989, p. 1-4.
- Newman, A. (1980). *Adult basic education: Reading*. Boston, MA: Allyn & Bacon.
- Northcutt, N. (1975). Functional literacy for adults. In D. M. Nielson & H. J. Hjelm (Eds.) *Reading and Career Education* (pp. 43-49). Newark, DE: International Reading Association.
- Phillips, Deborah, Editor, (1987) *QUALITY IN CHILD CARE: What Does Research Tell Us?* NAEYC, Washington, D.C.
- Rush, R., Moc, A., & Storlie, R. (1986). *Occupational literacy education*. Newark, DE: International Reading Association.
- Slavin, R. (1987). Cooperative learning and the cooperative school. *Educational Leadership*, 44, 7-13.
- Stedman, L. C., & Kaestle, C. F. (1987). Literacy and reading performance in the United States from 1880 to the present. *Reading Research Quarterly*, 22, 8-46.
- Stein, M. (1988). Combining literacy and computer training. *Editor & Publisher, the Fourth Estate*, 121, 28.

- Sticht, T. G. (1987) *Functional context education: Workshop resource notebook*. San Diego, CA: Applied Behavioral & Cognitive Sciences, Inc.
- Sticht, T.G.(1989). *Functional context education: Policy and training methods from the military experience*. Background paper No. 41. (ERIC Document Reproduction Service No. ED 317 710)
- Strumpf, Lori, (1991, October), What Makes This Hard? Workplace Literacy and Functional Context Instruction, *Mosaic: Research Notes on Literacy, Vol. 1, No. 2*, Penn. State, 1-2, 6.
- Texas Employment Commission (1992) Family Issues Dominate Workplace and Employee Benefits Discussions. *Texas Business Today*. Sept. 1992.
- Trueba, H. T. (1990). The role of culture in literacy acquisition: An interdisciplinary approach to qualitative research. *International Journal of Qualitative Studies in Education*.
- U.S. Dept. of Education (1986). *Adult illiteracy estimates for States*. Washington, DC.
- Whyte, W. F. (1991). *Participatory Action Research*. Newbury Park, CA: Sage Publications.

PRACTITIONER RESOURCE

- Bova, B. M. & Phillips, R. R. (1984). Mentoring as a learning experience for adults. *Journal of Teacher Education*, 3 (3), 16-20.
- Daly, J.A., & Miller, M. D. (1975a). The empirical development of an instrument to measure writing apprehension. *Research in the Teaching of English*, 9, 242-249.
- Derry, S. J. (1984). *Strategy training: An incidental learning model for CAI*. (ERIC Document Reproduction Service No. ED 247 884)
- Drew, R. A., & Mikulecky, L. (1988). *How to gather and develop job-specific literacy materials for basic skills instruction: A practitioner's Guide*. Bloomington, IN: School of Education, Office of Education and Training Resources, Indiana University: Bloomington.
- Fingeret, A. & Jurmo, P. (1989). *Participatory literacy education. New Directions for Continuing Education*, 42. San Francisco: Jossey-Bass.
- Hadley Press Catalog: Adult Placement Indicator (API), (1992 - 1993).
- Hayes, E. (1988). A typology of low literate adults based on perceptions of deterrents to participation in adult basic education. *Adult Education Quarterly*, 39, 1-10.
- Job-related basic skills : A guide for planners of employee programs* (1988). New York, NY: Business Council for Effective Literacy.
- Jurmo, P. (in press) *A Team Approach to Evaluation and Planning: A Handbook for Workplace Educators in a Changing Workplace*. San Francisco: Jossey-Bass.

- Kaplan, E. (1984). *Life skills writing 2 for the world of work*. New York: Educational Design, Inc.
- McBride, P. (1990). Developing a generalized workplace literacy curriculum. In *Proceedings from the Literacy in Community Conference*. College Station, TX: Texas A&M Press.
- Phillips, Deborah, Editor (1991) ESSENTIALS. Council for Early Childhood Professional Recognition. NAEYC, Washington, D.C.
- Philippi, J. W. (1988). *Lessons learned about workplace literacy from military job-specific reading programs*. Paper presented at the Annual Meeting of the International Reading Association, Toronto, Canada, May 1-6.
- Rural Capital Area Private Industry Council (1991, March). *Examples of "literacy partnership."* Round Rock, TX: Rural Capital Area Community Partnership for Literacy Conference.
- Sarmiento, A. R. and Kay, A. (1990). *Worker centered learning: A union guide to workplace literacy*. Washington, DC: AFL-CIO Human Resources Development Institute.
- Shrilling, D. (1989). Program evaluation as a strategy for program improvement in adult basic education. *Lifelong Learning*, 12, 23-24.
- Soifer, R, Irwin, M. E., Crumrine, B. M., Honzaki, E., Simmons, B. K., & Young, D. L. (1990). *The complete theory-to-practice handbook of adult literacy*. New York: Teachers College Press.
- Soifer, R, Young, D. L., & Irwin, M. (1989). The academy: A learner-centered workplace literacy program. In A. Fingeret & P. Jurmo (Eds.) *Participatory Literacy Education; New Directions for Continuing Education (No. 42)* San Francisco: Jossey-Bass.
- UAW-Ford National Education Development and Training Center (1988). *Mastering the Elements, the Story of the UAW-Ford Skills Enhancement Program*.
- Walker, B. J. (1988). *Diagnostic Teaching of Reading: Techniques for Instruction and Assessment*, Columbus, OH: Merrill Publishing Company.



SWT

Center for Initiatives in Education
School of Education
Southwest Texas State University
A Member of the Texas State University System