Federal legislation, such as the Education Amendments of 1976 and the Carl D. Perkins Vocational Education Act of 1984, recognizes the urgent national need for vocational programs that adequately serve limited-English-proficient (LEP) persons. In order to meet the need, vocational teacher education programs must be adapted to train preservice teachers to work with LEP persons in vocational education programs. Because requiring additional coursework is undesirable, curricular infusion is regarded as the most effective and realistic method to achieve this. The Bilingual Vocational Instructor Training (LVIT) Train the Trainers Project was conducted to provide inservice training to preservice trainers (vocational teacher educators) to help them infuse LEP-related content into their existing courses. During the project, content for such course was identified, and a manual for infusion and adaptation was written. Guidelines were developed for adapting: foundations courses; methods courses; course construction/curriculum planning courses; and special needs courses. (A 22-item annotated bibliography was developed and is contained in this document along with the guidelines.) (KC)
MODIFYING PRESERVICE VOCATIONAL TEACHER EDUCATION CURRICULA: PREPARING TEACHERS TO SERVE LIMITED ENGLISH-PROFICIENT STUDENTS

Joan E. Friedenberg
Janet K. Ciccone

Center on Education and Training for Employment
The Ohio State University
1900 Kenny Road
Columbus, Ohio 43210-1090

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INTRODUCTION

It is estimated that as many as 44 million people in the United States speak a native language other than English. These include Hispanic, Asian, Native American, European, Middle Eastern, and African persons. Of these individuals, between one-third and one-half are considered to be limited English proficient (LEP). In fact, their ability to understand, speak, read, or write English is limited to such a degree that it becomes a barrier to both education and employment.

In the public schools, LEP youth experience considerable difficulty in understanding their English-speaking instructors, peers, counselors, and school administrators. They are not prepared to read or understand their English-written textbooks, training manuals, instruction sheets, or tests.

Furthermore, statistics show that many LEP youth are more likely to drop out or be enrolled below the expected grade level. According to the National Council of LaRaza (Orum 1985), one-third of Hispanic students in the 1st to 4th grades, 40 percent in the 5th to 8th grades, and 43 percent in the 10th grade are enrolled below the expected grade level. These students are older than their classmates, often suffer from low self-concept, and frequently experience discipline problems. As a result, they often drop out. The U.S. General Accounting Office (1987) shows that approximately one-third (31 percent) of all Hispanic youth aged 18-21 have dropped out of high school, as compared to 17 percent for black youth and 15 percent for white students. In
urban settings, the dropout rate for Hispanic youth is said to be approaching two-thirds.

The problem is not improving, especially since the number of immigrants is increasing rapidly. If current trends continue, it is estimated that by 1990 nearly 25 percent of all school-age children will be limited English proficient (Bell 1984). Furthermore, according to Work Force 2000, a report funded by the U.S. Department of Labor, by 1990, one out of five new labor force entrants will be a minority youth. Overall, women, minorities, and immigrants will account for over 80 percent of the net additions to the labor force between now and the year 2000. In fact, immigrants will represent the largest share of the population and work force increase since the First World War (Johnston and Packer 1987).

Yet even if they do find jobs, LEP individuals are likely to be underemployed (National Commission for Employment Policy 1982). In the workplace, they have difficulty understanding their supervisors, trainers, peers, clients, and customers. They also experience problems in reading personnel forms, union notices, requisitions, and other written materials pertaining to their jobs.

The high unemployment and underemployment of LEP individuals subsequently results in a higher incidence of poverty and dependence on social and welfare programs than for nonminority persons. For example, earnings for employed Hispanics are about 30 percent less than for whites, and unemployment for Hispanics is
usually 60 percent higher than among white Americans. Hispanic are twice as likely as white persons to be poor (Orum 1985).

**Equal Access under the Law**

A key problem is surfacing today in relation to serving LEP students. Various school districts are being reviewed and found to be out of compliance with Title VI of the Civil Rights Act of 1964 that prohibits discrimination on the basis of national origin. This legislation and the guidelines written by the Office of Civil Rights (which address the obligations for vocational education) prohibit the maintenance of vocational education programs that discriminate against persons on the basis of national origin. Specifically, they prohibit discrimination in recruitment, admissions, and guidance and counseling activities. Further, they require that no person shall, on the basis of national origin, be excluded from participation in, denied the benefits of, or be subjected to unlawful discrimination in any vocational education program, service, or activity.

Thus, schools that engage in any of the following practices, even if they do so believing they are working for the students' best interests, are out of compliance with the Civil Rights Act and can be designated as such by reviewers.

- LEP students are enrolled mainly in academic programs and are seriously underrepresented in vocational-technical education programs.
- No effort is made to target vocational education recruitment to LEP students through the use of promotional materials, direct contact (meetings and presentations), and media in the students' native languages.
Bilingual and English-as-a-second-language (ESL) services and support programs are not offered in conjunction with the majority of vocational education programs.

The application rate of LEP students to vocational-technical education programs is disproportionately low in comparison to other student groups.

The acceptance rate for LEP students who do apply to vocational-technical programs is disproportionately low in comparison to other student groups.

Guidance and counseling programs advise LEP students to enter academic programs rather than vocational programs because most bilingual education and ESL funding and resources are available there.

All LEP students are required to enter ESL programs first and show a mastery of English before they can apply for or enter vocational education programs.

Entry requirements (such as standardized reading test scores in English) exclude LEP students from vocational education on the basis of their inadequate English language skills.

All intake assessment tests or screening interviews to determine students' vocational interest and aptitude are given in English only.

The Need for Service

The need to provide special services to LEP vocational students has been well documented. The Education Amendments of 1976 and the Carl D. Perkins Vocational Education Act of 1984 clearly recognize the urgent national need for vocational programs that adequately serve LEP individuals.

However, in order to provide these special services, vocational educators must have appropriate preparation. Indeed, Congress stated in the Education Amendments of 1976 that there is a critical shortage of instructors possessing both the job knowledge and skills and the dual language capabilities required for adequate vocational instruction of such language-handicapped persons and to prepare such persons to perform adequately in a work

...
environment requiring English language skills, and a corresponding shortage of instructional methods and techniques suitable for such instruction. (PL 94-482, Subpart 3, Section 181)

The Carl D. Perkins Vocational Education Act (PL 98-524) of 1984 goes even farther as it specifies the following:

- Each school must provide information to LEP students and their parents concerning vocational opportunities prior to the 9th grade. (Section 204(b))

- All LEP students are to receive guidance, counseling, and career development activities by professionally trained counselors. (Section 204(c)(3))

- To aid in planning and student placement, assessment is required of all LEP students' interests, abilities, and special needs. (Section 204(c)(1))

- Once enrolled in vocational programs, LEP students are to receive special services, including adaptation of curriculum, instruction, equipment, and facilities. (Section 204(c)(2))

- Counseling services are mandated to facilitate the transition from school to postschool employment and career opportunities. (Section 204(c)(4))

- Program quality is safeguarded by state-mandated assessments of the labor market, assessment of the needs of special population groups (including LEP students), and program capacity to meet the needs of all students. (Section 113(3))

- Local programs must be evaluated at the state and national levels, and national research must be conducted to identify effective methods of providing quality vocational education to LEP persons. (Sections 403 and 404)

The Need for Adaptation of Vocational Teacher Education Curricula

Included in the 1976 Vocational Education Amendments was a special set-aside for bilingual vocational education (BVE) projects. Twenty-five percent of the BVE set-aside was designated for bilingual vocational instructor training (BVIT) programs.
These programs were originally implemented as preservice programs that provided teacher trainees with tuition for their undergraduate degree in vocational education, which included a couple of special courses in bilingual vocational education. Soon it became evident that funding 4 years of university education with few courses actually devoted to bilingual vocational education was not the most cost-effective use of an already meager BVIT allocation. In addition, there was little evidence that, once funding was discontinued, any permanent institutionalization of the program or meaningful impact had occurred. Furthermore, by 1984, the already modest 25 percent designation for BVIT was reduced to 15 percent (of the total BVE set-aside).

Consequently, the U.S. Department of Education made inservice education and product development a new priority for BVIT. As a result of this shift, preservice vocational teacher education would neglect LEP issues even more, despite a recent study (Friedenberg 1987) indicating that 80 percent of vocational teachers working in areas of the United States having large numbers of LEP students believe all vocational educators, nationwide, should be required to have training in working with LEP students as part of their regular preservice and/or certification preparation, without increasing the number of required credits.

The study also points out that although preservice vocational teacher education programs often have special needs courses, most of these courses focus on the special problems and needs of
vocational students with disabilities. Little is mentioned about LEP persons. Likewise, most commonly used vocational special needs texts, along with journals and other literature, deal inadequately with LEP students. At most, they define LEP students and describe their specific problems. Few texts delve into specific strategies for serving them.

In sum, preservice vocational teacher education curricula need permanent adaptations to prepare new vocational teachers to meet the needs of LEP students. Since requiring additional coursework is undesirable, curricular infusion is the most effective and realistic method to achieve this.

**Project Description**

The main purpose of the BVIT Train the Trainers Project was to provide inservice training to preservice trainers (i.e., vocational teacher educators) to help them infuse LEP-related content into their existing courses. More specifically, the three project objectives were as follows:

1. To develop a set of guidelines for infusing LEP content into preservice courses
2. To provide inservice training to 40 vocational teacher educators in how to infuse LEP-related material into their courses
3. To develop a manual based on the guidelines and disseminate it to all certification-granting vocational teacher education programs

These objectives were implemented through a 10-phase project plan, as follows:

1. Identify 2 training sites with 20 vocational teacher educators in each. (Site selection was based on number
of vocational teacher education programs in the area, numbers of LEP persons in the area, and level of interest in this project.)

2. Identify LEP-related content or topics to be infused. (Content selection was based mainly on thorough review of the LEP-related literature; see exhibit 1.)

3. Identify three or four critical kinds of vocational teacher education courses to adapt. (Course selection was based on which kinds of courses are ordinarily required for certification and was confirmed through an informal telephone survey of vocational teacher educators; see exhibit 2.)

4. Match LEP topics with appropriate courses. (Matching was carried out by the project director.)

5. Conduct a field test. (The project director infused LEP content into three Ohio State University vocational teacher education courses, taught that content, and interviewed both students and cooperating professors as to the appropriateness and practicality of the adaptations.)

6. Convene the technical panel. (Results of the field test were presented to a panel of nationally recognized experts in vocational teacher education and the OSU course infusions were modified, as needed.)

7. Provide inservice training. (Two inservice sessions were held, in Southeast Michigan and metropolitan New York, reaching a total of 40 vocational teacher educators who infused and adapted their own courses.)

8. Develop a manual that describes how to adapt vocational teacher education courses by infusing LEP-related content.

9. Review and revise the manual.

10. Disseminate the manual nationally.
EXHIBIT 1: LEP TOPICS

1. Describe the basic problems and needs of LEP persons.
2. Explain the basic terms, philosophies, issues, and practices related to vocational instruction for LEP students.
3. Explain the historical and legislative issues that relate to LEP vocational students.
4. Explain the components of a model program for LEP vocational students.
5. Identify model programs throughout the United States.
6. Explain how to distinguish VESL from other types of ESL instruction.
7. Identify national resources that provide free or low cost information or literature related to LEP vocational students.
8. Identify companies that publish or distribute materials for LEP vocational students.
9. Identify local resources that can help you serve LEP vocational students more effectively.
10. Evaluate the appropriateness of materials for LEP vocational students using an objective checklist.
11. Modify vocational materials for LEP students.
12. Develop instructional materials for LEP vocational students.
13. Conduct instructional activities for LEP vocational students.
14. Explain the importance of and steps to collaboration between ESL and vocational teachers.
15. Describe things you can do to assure successful collaboration.
16. Conduct a joint lesson planning meeting with an ESL teacher.
17. Explain the meaning and importance of targeted recruiting.
18. Identify appropriate types of materials for recruiting LEP vocational students.
19. Explain appropriate ways of recruiting LEP vocational students.
20. Evaluate the appropriateness of recruiting materials for LEP vocational students using an objective checklist.

21. Identify ways to modify recruiting materials for LEP vocational students.

22. Identify the basic types of assessments needed for LEP vocational students.

23. Explain how to conduct intake for LEP students.

24. Identify appropriate commercially available instruments to assess English proficiency.

25. Identify informal ways to assess English proficiency.

26. Identify ways to assess native language literacy.

27. Identify ways to conduct vocational (interest/aptitude) assessment for LEP students.


29. Use assessment data to make appropriate placement (into programs) decisions for LEP students.

30. Explain common customs of various cultures.

31. Say common expressions in several languages.

32. Explain the legal responsibilities and liability to provide appropriate safety instruction for LEP students.

33. Provide appropriate safety instruction for LEP students.
EXHIBIT 2: VOCATIONAL COURSES NOMINATED FOR INFUSION

- **Foundations courses**: Courses covering such material as historical background, relevant legislation, basic terms of the field, theories and philosophies about teaching the subject, basic problems and needs of learners, research and resources, how programs are administered (for example at the federal, state, and local levels), an overview of service areas and vocational guidance, and current trends, issues, and principles.

- **Methods courses**: Courses covering methods and techniques of effective teaching, such as creating a positive learning environment, developing observation and assessment skills, using techniques for evaluating and monitoring student progress, using the group learning process, introducing and summarizing a lesson, and presenting information using demonstrations, exhibits, overheads, film strips, chalkboard, flip charts, and other media.

- **Course construction/curriculum planning**: Courses covering such topics as how to develop a unit of instruction, a course, and a lesson plan; how to write behavioral objectives; how to conduct an occupational analysis; and how to select and prepare instructional materials.

- **Special needs**: Courses relating specifically to how to serve various special populations in the vocational education classroom, such as disabled, minority, disadvantaged and culturally deprived, gifted and talented, and LEP students. They would cover such areas as how to classify and place special students, how to develop an IEP, what instructional materials are available, historical background and legislation pertaining to programming for special needs students, how to evaluate special students, and how to adapt or modify curriculum, facilities, or equipment.
ADAPTING FOUNDATIONS COURSES

Foundations courses are defined here as those covering such material as historical background, relevant legislation, basic terms of the field, theories and philosophies about teaching the subject, basic problems and needs of learners, research and resources, how programs are administered (for example at the federal, state, and local levels), an overview of service areas and vocational guidance, and current trends, issues, and principles. The following LEP topics were infused into foundations courses most often, which agrees with the findings of the technical panel (the numbers of the topics in this list correspond to the numbers of the topics as listed in exhibit 1):

1. Describe the basic problems and needs of LEP persons.
2. Explain the basic terms, philosophies, issues, and practices related to vocational instruction for LEP students.
3. Explain the historical and legislative issues that relate to LEP vocational students.
4. Explain the components of a model (BVT) program for LEP vocational students.
5. Explain how to distinguish VESL from other types of ESL instruction.
6. Identify national resources that provide free or low-cost information or literature related to LEP vocational students.
7. Identify companies that publish or distribute materials for LEP vocational students.
8. Identify local resources that can help you serve LEP vocational students more effectively.
9. Explain the meaning and importance of targeting recruiting.
Exhibits 3, 4, and 5, present course outlines and illustrate multiple infusion, single infusion, and combination multiple/single infusion options, respectively, for foundations-type courses.
EXHIBIT 3: INFUSING LEP INFORMATION INTO EACH SECTION OF A COURSE (MULTIPLE INFUSION)

Foundations of Vocational Education

I. Definitions and Terms
   A. Voc Ed, Career Ed, Gen Ed, College Prep, Cooperative Ed, Work Study
   B. Abbreviations, Acronyms, etc.

II. Historical Development of Vocational Education
   A. Origin through 1860
   B. Federal Legislative History (Morrill through Perkins Acts)
   C. Current Status of Voc-Ed

III. Vocational Service Areas
   A. T&I, Ag, B&O, Health, Home Economics, MDE, Tech Ed, Industrial Arts, etc.
   B. Occupational Clusters

IV. Where Vocational Education Exists
   A. Public Schools (comprehensive high school, JVS, adult technical center, community college)
   B. Proprietary Schools
   C. Business and Industry
   D. Other (CBS's, correctional institutions, etc.)

V. The Administration of Vocational Education
   A. Federal
   B. State
   C. School Districts and JVS's
   D. Local Schools

VI. Vocational Education for Special Population Groups
   A. Persons with Disabilities
   B. Disadvantaged Persons
   C. Limited English-Proficient Persons
   D. Etc.

VII. Vocational Education Organizations
   A. Advisory Councils
   B. Student Organizations
   C. Professional Associations
   D. Etc.

VIII. Current Local Issues
EXHIBIT 4: CREATING A SPECIAL LEP COURSE SEGMENT
(SINGLE INFUSION)

Foundations of Vocational Education

I. Definitions and Terms
   A. Voc Ed, Career Ed, Gen Ed, College Prep, Cooperative Ed, Work Study
   B. Abbreviations, Acronyms, etc.

II. Historical Development of Vocational Education
   A. Origin through 1860
   B. Federal Legislative History (Morrill through Perkins Acts)
   C. Current Status of Voc-Ed

III. Vocational Service Areas
   A. T&I, Ag, Bio, Health, Home Economics, MDE, Tech Ed, Industrial Arts, etc.
   B. Occupational Clusters

IV. Where Vocational Education Exists
   A. Public Schools (Comprehensive high school, JVS, adult technical center, community college)
   B. Proprietary Schools
   C. Business and Industry
   D. Other (CBS's, correctional institutions, etc.)

V. The Administration of Vocational Education
   A. Federal
   B. State
   C. School Districts and JVS's
   D. Local Schools

VI. Vocational Education for Special Population Groups
   A. Persons with Disabilities
   B. Disadvantaged Persons
   C. Limited English-Proficient Persons
   D. Etc.

VII. Vocational Education Organizations
   A. Advisory Councils
   B. Student Organizations
   C. Professional Associations

VIII. Current Local Issues
EXHIBIT 5: COMBINATION SPECIAL SEGMENT AND MULTIPLE INFUSION

Foundations of Vocational Education

I. Definitions and Terms
   A. Voc Ed, Career Ed, Gen Ed, College Prep, Cooperative Ed, Work Study
   B. Abbreviations, Acronyms, etc.

II. Historical Development of Vocational Education
   A. Origin through 1860
   B. Federal Legislative History (Morrill through Perkins Acts)
   C. Current Status of Voc-Ed

III. Vocational Service Areas
   A. T&I, Ag, B&O, Health, Home Economics, MDE, Tech Ed, Industrial Arts, etc.
   B. Occupational Clusters

IV. Where Vocational Education Exists
   A. Public Schools (comprehensive high school, JVS, adult technical center, community college)
   B. Proprietary Schools
   C. Business and Industry
   D. Other (CBS's, correctional institutions, etc.)

V. The Administration of Vocational Education
   A. Federal
   B. State
   C. School Districts and JVS's
   D. Local Schools

VI. Vocational Education for Special Population Groups
   A. Persons with Disabilities
   B. Disadvantaged Persons
   C. Limited English-Proficient Persons
   D. Etc.

VII. Vocational Education Organizations
   A. Advisory Councils
   B. Student Organizations
   C. Professional Associations

VIII. Current Local Issues

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16
ADAPTING METHODS COURSES

Methods courses are defined here as those covering methods and techniques of effective teaching, such as creating a positive learning environment, developing observation and assessment skills, using techniques for evaluating and monitoring student progress, using the group learning process, introducing and summarizing a lesson, and presenting information using demonstrations, exhibits, overheads, film strips, chalkboard, flip charts, and other media. The following LEP topics were infused into methods courses most often, which agrees with the findings of the technical panel (the numbers of the topics in this list correspond to the numbers of the topics as listed in exhibit 1):

1. Describe the basic problems and needs of LEP persons.

2. Explain the basic terms, philosophies, issues, and practices related to vocational instruction for LEP students.

13. Conduct instructional activities for LEP vocational students.

14. Explain the importance of and steps to collaboration between ESL and vocational teachers.

15. Describe things you can do to assure successful collaboration.

16. Conduct a joint lesson planning meeting with an ESL teacher.

22. Identify the basic types of assessments needed for LEP vocational students.

24. Identify appropriate commercially available instruments to assess English proficiency.

25. Identify informal ways to assess English proficiency.

Exhibits 6, 7, and 8 illustrate, again, the three types of infusions using the course outline of a prototypical methods course.
EXHIBIT 6: MULTIPLE INFUSIONS

Methods of Teaching Vocational Education

I. Developing a Lesson Plan
   A. Student Needs
   B. Components of Lesson Plan
   C. Developing Learning Objectives

II. Selecting Appropriate Teaching Techniques/Learning Activities
   A. Lecture
   B. Demonstration
   C. Questioning
   D. Laboratory
   E. Discussion
   F. Structured Observation
   G. Case Study
   H. Brainstorming
   I. Panel
   J. Debate
   K. Field Trip
   L. Role-Playing
   M. Individualized Instruction

III. Using Instructional Materials
   A. Textbooks
   B. Instruction Sheets
      1. Information Sheets
      2. Assignment Sheets
      3. Operation Sheets
      4. Job Sheets
   C. Others

IV. Using Instructional Media
   A. Overhead Projector
   B. Films, Filmstrips, Slides
   C. Audiocassettes
   D. CAI
   E. VCR
   F. Interactive Video
   G. Others

V. Safety Instruction
   A. Legal Concerns
   B. Safety Strategies

VI. Testing Student Achievement
   A. Written Tests
   B. Performance Tests
   C. Interpreting Test Scores

For LEP's
EXHIBIT 7: SINGLE INFUSION

Methods of Teaching Vocational Education

I. Developing a Lesson Plan
   A. Student Needs
   B. Components of a Lesson Plan
   C. Developing Learning Objectives

II. Selecting Appropriate Teaching Techniques/Learning Activities
   A. Lecture
   B. Demonstration
   C. Questioning
   D. Laboratory
   E. Discussion
   F. Structured Observation
   G. Case Study
   H. Brainstorming
   I. Panel
   J. Debate
   K. Field Trip
   L. Role-Playing
   M. Individualized Instruction

III. Using Instructional Materials
   A. Textbooks
   B. Instruction Sheets
      1. Information Sheets
      2. Assignment Sheets
      3. Operation Sheets
      4. Job Sheets
   C. Others

IV. Using Instructional Media
   A. Overhead Projector
   B. Films, Filmstrips, Slides
   C. Audiocassettes
   D. CAI
   E. VCR
   F. Interactive Video
   G. Others

V. Safety Instruction
   A. Legal Concerns
   B. Safety Strategies

VI. Testing Student Achievement
    A. Written Tests
    B. Performance Tests
    C. Interpreting Test Scores

VII. Teaching Students with Special Needs
    A. Students with Disabilities
    B. Disadvantaged Students
    C. Limited English Proficient
    D. Other
EXHIBIT 8: COMBINATION SINGLE/MULTIPLE INFUSION

Methods of Teaching Vocational Education

I. Developing a Lesson Plan
   A. Student Needs
   B. Components of a Lesson Plan
   C. Developing Learning Objectives

II. Selecting Appropriate Teaching Techniques/Learning Activities
   A. Lecture
   B. Demonstration
   C. Questioning
   D. Laboratory
   E. Discussion
   F. Structured Observation
   G. Case Study
   H. Brainstorming
   I. Panel
   J. Debate
   K. Field Trip
   L. Role-Playing
   M. Individualized Instruction

III. Using Instructional Materials
   A. Textbooks
   B. Instruction Sheets
      1. Information Sheets
      2. Assignment Sheets
      3. Operation Sheets
      4. Job Sheets
   C. Others

IV. Using Instructional Media
   A. Overhead Projector
   B. Films, Filmstrips, Slides
   C. Audiocassettes
   D. CAI
   E. VCR
   F. Interactive Video
   G. Others

V. Safety Instruction
   A. Legal Concerns
   B. Safety Strategies

VI. Testing Student Achievement
   A. Written Tests
   B. Performance Tests
   C. Interpreting Test Scores

VII. Teaching Students with Special Needs
   A. Students with Disabilities
   B. Disadvantaged Students
   C. Limited English Proficient
   D. Other
ADAPTING COURSE CONSTRUCTION/
CURRICULUM PLANNING COURSES

Course construction/curriculum planning courses are those covering such topics as how to develop a unit of instruction, a course, and a lesson plan; how to write behavioral objectives; how to conduct an occupational analysis; and how to select and prepare instructional materials. The following LEP topics were infused into course construction/curriculum planning courses most often, which agrees with the findings of the technical panel (the numbers of the topics in this list correspond to the numbers of the topics as listed in exhibit 1):

1. Describe the basic problems and needs of LEP persons.
2. Explain the basic terms, philosophies, issues, and practices related to vocational instruction for LEP students.
7. Identify national resources that provide free or low cost information or literature related to LEP vocational students.
8. Identify companies that publish or distribute materials for LEP vocational students.
10. Evaluate the appropriateness of materials for LEP vocational students using an objective checklist.
11. Modify vocational materials for LEP students.
22. Identify the basic types of assessments needed for LEP vocational students.

Exhibits 9, 10, and 11 illustrate the three types of infusions using the course outline of a prototypical course planning course.
EXHIBIT 9: MULTIPLE INFUSIONS

Vocational Education Course Planning

I. Introduction
A. Terminology (curriculum, program, course, unit, lesson plan, module)
B. Factors Affecting Course Planning
C. Student Populations

II. Approaches to Occupational Analysis
A. Job Title and Description
B. Task Listing
C. Task Detailing (analysis)
D. Advisory Committee

III. Developing a Course Outline
A. Developing Goals and Objectives
B. Sequencing Units
C. Lesson Plans

IV. Identifying Instructional Resources/Facilities
A. Facilities and Equipment
B. Textbooks
C. Instruction Sheets
D. Modules
E. Media
F. Other

V. Evaluation

#22 Types of assessments for LEP's
#28 Performance tests for LEP's
EXHIBIT 10: SINGLE INFUSION

Vocational Education Course Planning

I. Introduction
   A. Terminology (curriculum, program, course, unit, lesson plan, module)
   B. Factors Affecting Course Planning
   C. Student Populations

II. Approaches to Occupational Analysis
   A. Job Title and Description
   B. Task Listing
   C. Task Detailing (analysis)
   D. Advisory Committee

III. Developing a Course Outline
   A. Developing Goals and Objectives
   B. Sequencing Units
   C. Lesson Plans

IV. Identifying Instructional Resources/Facilities
   A. Facilities and Equipment
   B. Textbooks
   C. Instruction Sheets
   D. Modules
   E. Media
   F. Other

V. Evaluation

VI. Adapting Course Planning for Special Needs Students
   A. Students with Disabilities
   B. Disadvantaged Students
   C. LEP Students
   D. Others

24
EXHIBIT 11: COMBINATION MULTIPLE/SINGLE INFUSION

Vocational Education Course Planning

1. Introduction
   A. Terminology (curriculum, program, course, unit, lesson plan, module)
   B. Factors Affecting Course Planning
   C. Student Populations

II. Approaches to Occupational Analysis
   A. Job Title and Description
   B. Task Listing
   C. Task Detailing (analysis)
   D. Advisory Committee

III. Developing a Course Outline
   A. Developing Goals and Objectives
   B. Sequencing Units
   C. Lesson Plans

IV. Identifying Instructional Resources/Facilities
   A. Facilities and Equipment
   B. Textbooks
   C. Instruction Sheets
   D. Modules
   E. Media
   F. Other

V. Evaluation

VI. Adapting Course Planning for Special Needs Students
   A. Students with Disabilities
   B. Disadvantaged Students
   C. LEP Students
   D. Others
Special needs courses are those covering how to serve various special population groups in vocational education. Although special needs courses are supposed to address all special population groups (e.g., handicapped, disadvantaged, LEP) they frequently focus on students with disabilities (i.e., handicapped), with minimal attention given to others.

All of the LEP topics were considered relevant to special needs courses. The following three exhibits--12, 13, and 14--illustrate the various ways of infusing most of the topics. A course outline for a prototypical vocational special needs education course is used.
EXHIBIT 13: SINGLE INFUSION

Vocational Special Needs Education

I. Introduction to Special Needs Learners
   A. Definitions
   B. Characteristics
   C. Attitudes

II. Historical and Legislative History of Special Needs Learners

III. Assessment of Special Needs Learners
   A. Vocational Interest and Aptitude
   B. Basic Skills
   C. Other

IV. Curricular Modifications for Special Needs Students
   A. Mainstreaming vs. Separate Programs
   B. IEPs
   C. Special Services

V. Instructional Techniques

VI. Testing
   A. Written
   B. Performance

VII. Interagency Collaboration

VIII. Job Placement

VIII. Working with LEP Students

1. #5 1-5
2. #5 7-13
3. #3 14-16
4. #4 17-29
5. #4 30
EXHIBIT 14: COMBINATION SINGLE/MULTIPLE INFUSION

1. Introduction to Special Needs Learners
   A. Definitions
      Characteristics
   B. Vocational Special Needs Education

II. Historical and Legislative History of Special Needs Learners

III. Assessment of Special Needs Learners
   A. Vocational Interest and Aptitude
   B. Basic Skills
   C. Other

IV. Curricular Modifications for Special Needs Students
   A. Mainstreaming vs. Separate Programs
   B. IEPs
   C. Special Services

V. Instructional Techniques

VI. Testing
   A. Written
   B. Performance

VII. Job Placement

VIII. Working with LEP Students

#4 LEP
4.5, 7-13, 16-24, 25-28, 29-30
This annotated bibliography is designed to assist the vocational teacher educator in learning more about the actual LEP-related content to be infused.


Helps nonbilingual teachers learn new teaching techniques and adaptations of existing methods for serving LEP students. Reviews terminology related to bilingual and vocational education. Presents a history of bilingual vocational education. Focusses on approaches to designing a vocational program and how to construct a vocational course for LEP students. Reviews techniques and strategies appropriate in multicultural settings. Outlines methods for testing LEP vocational students.


Presents an overview of important safety considerations for instructors of vocational students with limited English proficiency. Reviews legal responsibilities of vocational educators to provide for student safety. Discusses legal rights of LEP students. Describes the cause of accidents and how to prevent them. Itemizes safety strategies for LEP students. Concludes with a safety checklist for instructors of LEP students, references, a bibliography, a multilingual glossary of safety expressions, and an assignment sheet for self-study or pre and posttesting.


Presents guidelines for teachers and teacher trainees to use in teaching ESL quickly and efficiently to adults. Addresses teaching ESL in order to achieve identified competencies, teaching ESL to nonliterate adults, and characteristics of successful vocational ESL programs. Examines ESL instruction in the workplace, particularly in terms of working partnerships between the ESL teacher, employers, and LEP workers. Aids in teaching ESL in the multilevel classroom and in coordinating and training volunteer tutors. Contains discussion throughout of teaching methods, program designs, objectives, materials, and testing. Appendix provides an
outlines of generic concerns and specific models for adult ESL programs in the areas of survival, literacy, basic skills, general vocation, occupation specific, and home management.


Offers a series of suggested approaches and procedures to use in identifying LEP students. Describes the referral process, including steps and suggestions for designing or using referral guidelines in local education agencies. Provides suggestions and procedures for assessing LEP students in the following areas: English language proficiency, native language proficiency, vocational interest, vocational aptitude/skills, career awareness, education achievement, and cultural adjustment. Describes some major ways of using assessment data, including counseling, placement, instructional planning, student's progress, and administrative planning. Includes sample resource documents (such as home language survey forms) and abstracts of tests.


Outlines the language skills, job skills, and support services needed by the limited English-proficient population. Discusses current issues, trends, and research findings in providing vocational education to this population. At the time of publication, Crandall was director of the Communication Services Division for the Center for Applied Linguistics. (Available from the Center on Education and Training for Employment, OC 109)


Presents an historical overview of bilingual vocational education. Documents the national needs and specific problems of LEP vocational students. Overviews the latest and most successful strategies in bilingual vocational education in the areas of program design, assessment practices, instructional materials, and personnel practices. Describes the professional role, educational practices, and needed competencies for personnel who work with LEP vocational students. Describes vocational English-as-a-second-language programs and exemplary bilingual vocational education programs. (Available from the Center on Education and Training for Employment, IN 269)

Developed to help vocational instructors and job trainers of LEP students or workers locate resources and evaluate, adapt, and develop their own training materials. Identifies national resources for bilingual vocational education and four steps to using community resources. Discusses how to evaluate and modify English vocational materials and how to evaluate bilingual and non-English vocational materials for use in bilingual vocational instruction. Describes how to develop instruction sheets and individualized learning packages.


Reviews statistics documenting the problems and educational needs of LEP individuals in the United States. Describes the BVT model. Summarizes the Perkins Act and its mandates for service to this population.


Serves as a teacher's guide to the field of VESL instruction. Defines terms associated with VESL, describes the difference between VESL and other types of ESL instruction, and presents four common program designs for serving vocational ESL students. Includes a brief history of vocational education and an overview of the vocational education program areas. Reviews instructional methods and materials used frequently in vocational education. Focuses on how the ESL instructor can collaborate with the vocational instructor, how to develop a VESL lesson, and how to evaluate and modify instructional materials for VESL instruction. Summarizes special assessment considerations and lists selected English proficiency assessment instruments.


Provides special information about American job customs, laws and practices related to immigration and discrimination, and a systematic plan for finding a job for individuals who may not be familiar with American work habits and who do not speak fluent English. Written in clear, simple English. Useful for foreign-born professionals, foreign students, and immigrants.

Describes the bilingual vocational training model, which is considered to be the most effective instructional delivery system for LEP students. Reviews successful strategies that can be applied in business education programs for LEP students. Indicates that LEP students are underrepresented in business education and that teachers should learn more about LEP students and how to serve them effectively.


Presents findings of a national study that examined the practices of vocational education programs serving limited English-proficient students without the benefit of federal bilingual vocational training funds. Presents findings in the areas of recruitment; assessment; policy, planning, and leadership; ESL instruction; employability skills instruction and job placement; and staff development. Presents recommendations for improvement.


Presents 10 valuable tips to assist instructors and administrators in working more effectively with LEP students. Focuses on the concept that communicating in English is a vocational skill and that instructor attitude and understanding are key to successful programs. Offers practical suggestions for adapting materials and methods.


A performance-based series of modules that teach competencies identified through research as important to successful teaching at both the secondary and postsecondary levels of instruction. Designed for the preparation of teachers and occupational trainers in all occupational areas. Each module provides learning experiences that integrate theory and application and culminates with criterion-referenced assessment of the learner's performance of the specified competency.
LEP 1--Friedenberg, Joan E.; Gordon, Robert A.; Bradley, Curtis H.; and Dillman, Mary Alice. Recruit Limited English-Proficient Students for Vocational Programs.

Serves as an aid to vocational educators and recruiters wishing to target their recruiting efforts. Presents individualized training in how to develop a comprehensive recruitment plan; how to plan and develop promotional materials and activities; and how to involve others in the recruitment process.

LEP 2--Friedenberg, Joan E.; Gordon, Robert A.; and Dillman, Mary Alice. Conduct Intake Assessment for Limited English-Proficient Vocational Students.

Helps counselors and instructors understand the purpose of assessing LEP students for English and native language proficiency, vocational interests, and aptitude. Teaches how to administer English proficiency tests and gives pointers on how to interpret assessment results. Covers how to make appropriate programmatic decisions.

LEP 3--Friedenberg, Joan E.; Kulick, Susan; Gordon, Robert A.; and Dillman, Mary Alice. Adapt Instruction for Limited English-Proficient Vocational Students.

Designed to aid vocational educators in adapting instructional techniques and materials to serve LEP students effectively. Covers how to obtain needed educational and background information on LEP students, how to identify services in the community that support teaching efforts, and how to help students by using their native languages.

LEP 4--Friedenberg, Joan E.; Gordon, Robert A.; and Dillman, Mary Alice. Administer Vocational Programs for Limited English-Proficient Students.

Designed to help administrators, program directors, and program coordinators learn to develop a comprehensive delivery system for LEP students. Addresses how to identify and collaborate with sources of internal and external assistance; how to recruit, hire, and train personnel; and how to evaluate services provided to LEP students.


Assists vocational administrators and other educators at the secondary, postsecondary, and adult program levels in designing vocational education programs that meet the special needs of limited English-speaking persons. Includes information on legislation related to education of LEP
persons, funding sources for training and support activities, identification and assessment of LEP persons, program models for serving LEP students in vocational education, an implementation checklist, and resource agencies and services.


Highlights issues in preparing LEP adults for employment. Describes program models for teaching English to LEP individuals and explains how to develop a VESL lesson. Addresses the influence of culture on language acquisition, progress in education, and understanding of the American workplace, as well as presents strategies for teaching American culture. Outlines the vocational program approach and several other approaches to providing employment-related training. Discusses job placement for LEP adults and barriers to success. (Available from the Center on Education and Training for Employment, IN 302)


Describes how resources external to a training program can be obtained and used to augment training program operations. Part I, designed for program directors and other key staff members who obtain and coordinate external resources, presents (1) an overview of the need for and methodology of bilingual vocational training, (2) how to plan for the use of external resources, (3) how to develop and implement strategies for obtaining these resources, and (4) procedures for monitoring their provision. Section II addresses specific program duties and activities of staff members in training programs for LEP persons and how external resources can be used to augment their work. Examples are based on actual practices identified during case studies, described in the appendices. (Available from Evaluation, Dissemination, and Assessment Center, California State University, Los Angeles, 5151 State University Drive, Los Angeles, CA 90032)


Provides practical ideas and information to program administrators and others interested in initiating and
improving vocational training programs for persons with limited English-speaking ability. Provides brief descriptions of BVT programs studied. Explains successful program strategies used in the following BVT program areas: program administration, staff development, staff recruitment, trainee recruitment, trainee selection, bilingual vocational skills instruction, advisory committees, curriculum development, counseling, cross-cultural training, linkage activities, on-the-job practice, job development and placement, program records, and institutionalization. Also covers criteria for success in bilingual education, as well as such aspects of planning BVT programs as needs assessment, linkage activities, administrative structure, program design, scheduling, staff development, coordination, and evaluation. Includes checklists of criteria for successful strategies and passages from pertinent federal legislation.
REFERENCES

Bell, T.H. Unpublished speech delivered by T.H. Bell, U.S. Secretary of Education, to the annual convention of Teachers of English to Speakers of Other Languages (TESOL), Houston, TX, 7 March 1984. (National Clearinghouse on Bilingual Education Document No. 014392)


