

FINAL REPORT - PROJECT 5017

**An Assessment of the Support Service Needs of Career
and Technical Education Teachers and their Students
with Limited English Proficiency in Selected
Pennsylvania AVTS's**

Submitted by

Chester P. Wichowski , Project Director

Frances Nunez, Research Associate

November, 2005

EXECUTIVE SUMMARY

A survey was conducted among a population of 350 CTE teachers from 12 CTC sites in seven counties throughout Pennsylvania (return rate= 64%). The participating schools demographic settings, which were selected by the respondents, were closely divided between rural (37.9%) and suburban (39.8%) settings. The remainder of the respondents (22.3%) classified their school setting as urban. The number of different occupational areas taught by respondents was 56. The total number of LEP students taught by the teachers who responded to the survey was 448 (283 male, and 165 female).

Based on survey returns, it was determined that the ELL enrollment pattern at CTC's was considerably less than the expected 10% or greater reported by census data. For example, in the seven counties surveyed, the average percentage of Pennsylvania county households with individuals 5 years of age and older who spoke a language other than English at home as reported in the 2000 Census was 12.9%; while the average percentage of ELL students reported in the survey of CTC's in the same counties was only 3.7%.

Findings indicated that:

- There were considerably less ELL students enrolled in CTCs than were reflected in county demographics
- the average level of their students overall ELL English language skills as fair (2.3 on a 4 point scale)
- the level of collaboration with the English language teacher at the sending school (or in your school) to meet the occupational safety needs of the ELL students" was rated rather low (1.5 on a 4 point scale)
- the level of collaboration with the English language teacher at the sending school (or in your school) to develop an English safety vocabulary for your ELL students was rated rather low (1.5 on a 4 point scale)
- respondents indicated a high need for more support in helping their students in the area of vocational safety vocabulary development (3.3 on a 4 point scale)
- the degree of administrative support received by teachers to meet the needs of ELL students was rated at a moderately low level (2.36 on a 4 point scale)

Contents

Introduction	4
Background and Need	4
Demographics.....	6
Statewide CTE ELL Survey	7
Population	7
Instrument	7
Procedure	8
Findings	8
Answers to Research Questions	11
Survey Comments	13
ELL Instructional Models	15
Case Study 1	16
Background	16
ESL Emerson Program.....	17
Outcome	19
Case Study 2.....	20
Background	20
Description of SIOP Training Programs	21
Outcome	21
Teaching Tips	22
Interaction Tips.....	27
Bibliography and Selected Websites	28
Appendix A	29
Transmittal Letter to Coordinator	30
Transmittal Letter to CTC Director.....	31
Survey Instrument.....	32

INTRODUCTION

Background and Need

A functional level of proficiency in the use of the English Language is a basic educational right and necessary foundation for success as a student in the United States. The right to assistance for English Language Learners is affirmed on the Federal level by the enforcement of Title VI of the Civil Rights Act of 1964 by the U. S. Office for Civil Rights.

Additional affirmation has also been provided as a result of *Lau v. Nichols* in the 1974 US Supreme Court decision, which indicated that school districts may not compromise a student's rights to a meaningful education before proficiency in English is obtained.

At the state level, this basic right is supported in the PA School Code, Chapter 4, Section 4.26, which states that:

Every school district/charter school shall provide a program for each student whose dominant language is not English for the purpose of facilitating the student's achievement of English proficiency...

English language proficiency is especially critical for students in career and technical education in their area of occupational specialization and for their later success in the workplace. The teaching learning process cannot function effectively without the ability to communicate in a common language nor will student achievement be effectively measured as required under current legislation in Pennsylvania (PSSA Tests) or under the Federal No Child Left Behind Act.

According to the 2000 U.S. Census, the average percentage of individuals greater than five years old who speak a language other than English at home in Pennsylvania is 8.4%; the upper end of the range for one PA county was reported at 17.7%. Reports by the Pennsylvania Department of Education (PDE) in 2002 indicate that there has been a steady increase in the number of Limited

English Proficiency (LEP) students (20,591 students in 1995 to 24,100 students in 1999). Also reported is the number of languages other than English used at the home which has increased over this same time period (93 languages in 1995 to 116 languages in 1999).

Other PDE reports on ELL students enrolled in Career and Technical Schools, CATS, indicate similar trends. However, accurate data in this area of education is difficult to obtain due to program completion requirements necessary for reporting. To be counted in CATS reports, a student must have been continuously enrolled in the same career and technical education area of concentrated study for three semesters. The ELL student in the Career Technical Centers, CTCs, is, however, a concern beyond enrollment reporting.

Concern over safety knowledge and practice is critical to the health and physical well-being as well as the educational needs of the ELL student in a CTC. According to the 2002 PDE *Guidebook for Planning Programs for English Language Learners*, “ it is recommended that the staff of a high school and the CTC collaborate ...to incorporate the vocabulary related to safety procedures at the school.”(p.69). It should be noted that the collaboration between high school and CTC staff on instruction for vocabulary related to safety procedures in the guidebook is a recommendation, not a requirement.

In operation, the typical secondary level ELL student is provided English Language instruction by a language specialist during what would otherwise be their English class. Unless there is collaboration between high school and CTC staff, the LEP student might not receive instruction in vocabulary related to safety procedures during their English language instruction. Further, if safety instruction in vocabulary is provided, it may be separate and not coordinated with hands on safety instruction in a CTC involving the tools, equipment and procedures associated with the occupation being studied.

Clearly, the health, safety and the career and technical education needs of the ELL student must be addressed. Further, in addition to occupational safety, the student must also develop a functional level of English language proficiency in the occupational area of study if he or she is to be successful.

The research problem in this study is to determine the instructional support service needs of (a) the career and technical education ELL student, and (b) the career and technical education

teacher who teaches students with limited English language proficiency. To do this, the following research questions were addressed:

1. What are the enrollment patterns of ELL students in CTC's by occupational area of study?
2. What are the English language proficiency levels of CTC students in their occupational area of study?
3. What levels of collaboration exist between CTE teachers and English language teachers to meet the occupational safety needs of the ELL student?
 - 3a. Is collaboration limited to instruction on the development of a safety vocabulary?
 - 3b. Is collaboration for instruction on the development of a safety vocabulary coordinated with hands-on safety practices in the CTE classroom?
4. What are the types and levels of instructional support being provided to CTE teachers to meet the needs of their ELL students?
5. What additional ELL instructional support is needed by CTE teachers to meet the needs of their ELL students?

It should be noted that the term Limited English Proficiency, LEP, and the term English Language Learner, ELL, have both been used in this report due to changes in terminology usage that were taking place during the time period this research was taking place.

Demographics

According to the 2000 US Census figures, the number of Pennsylvania residents (5 years and older) who speak a language other than English at home has jumped over 20% from data collected in 1990 - from 806,876 speakers of other languages to 972,484. Many states in the US have seen dramatic growth in the population of speakers of other languages. Over the decade Georgia's non-native population swelled by 164%, Nevada growth was assessed in 2000, showing a 192% gain. Such a large increase in this specific population has an enormous impact on educational policy and decision making.

As educators, grappling with these figures can be daunting. Pennsylvania has not experienced such a challenging increase as other states but an examination by county shows some interesting

developments. According to the 2000 census there are many Pennsylvania counties whose residents over five years of age are identified as speakers of languages other than English at home. For example, Philadelphia had 17 %, Lehigh. 15.3%, and Lancaster, 13.1%. Recent increases are also noted. According to the U.S. Department of Education's Survey of the States' Limited English Proficient Students, Pennsylvania saw, within one school year, between 1999-2000 and 2000-2001, enrollment figures for ELL students in Pre-K to 12th grade increase by 9.9%.

Also reviewed were enrollment data from the Pennsylvania Department of Education for the school year 2002-2003. In the seven identified counties, the ELL secondary enrollment was often concentrated in one or a few high schools in each county. This concentration pattern is also true for enrollment at CTC's, where most of the ELLs come from sending schools with concentrated ELL populations.

STATEWIDE CTE ELL SURVEY

Population

A review of 2000 Census data was undertaken to identify Pennsylvania counties where ELL students were most likely to reside. Counties selected had 10% or more of their residents, 5 years of age and older who spoke a language other than English at home as reported in the 2000 Census. These included Berks, Lancaster, Lehigh, Monroe, Northampton, Philadelphia, and Union Counties. The survey instrument was distributed to a population of 350 CTE teachers from 12 CTC sites in seven counties throughout the Commonwealth.

Instrument

A survey instrument was developed and reviewed for content validity by a panel of experts consisting of career and technical education teachers and administrators, ELL teachers and university teacher educators. Further, this instrument was pilot tested with practicing career and technical education teachers representing different occupational specializations who work in different demographic settings in the eastern region of Pennsylvania. Also, it should be noted that approval was received from the Temple University, Office of Institutional Research to conduct this survey.

Procedure

Initial contact of potential survey sites was made by phone calls to CTC director's to determine (a.) their willingness for their school to participate in the survey, and (b.) the identification of a site coordinator to assist in the distribution and administration of the instrument. The instrument was distributed to a population of 350 CTE teachers from 12 CTC sites in seven counties throughout the Commonwealth. Copies of the survey instrument and transmittal letters are included in Appendix A.

All CTC's and teachers participated in the survey on a voluntary basis. Data collected was anonymous and pooled for analysis. No individual school, teacher or student was identified or reported on in this study.

Findings

There was a 64% return rate on the survey. The participating schools demographic settings, which were selected by the respondents, were closely divided between rural (37.9%) and suburban (39.8%) settings. The remainder of the respondents (22.3%) classified their school setting as urban.

The number of different occupational areas taught by respondents was 56. The total number of LEP students taught by the teachers who responded to the survey was 448 (283 male, and 165 female). Where known by teachers responding, the vast majority of the students were placed in an occupational class that was their first choice (82.2%).

Based on survey returns, it was determined that the ELL enrollment pattern at CTC's was considerably less than the expected 10% or greater reported by census data. For example, in the seven counties surveyed, the average percentage of Pennsylvania county households with individuals 5 years of age and older who spoke a language other than English at home as

reported in the 2000 Census was 12.9%; while the average percentage of ELL students reported in the survey of CTC's in the same counties was only 3.7% .

The respondents rated the average level of their students overall ELL English language skills as fair (m=2.33) on a 5 point Likert type scale with a low of 1 and a high of 5. Sub-category mean ratings ranged from a high of 2.58 to a low of 1.92. A descending rank ordered listing of these sub-categories based on mean ratings is provided in chart 1.

Chart 1. Descending Rank Order Listing of ELL Student English Language Skills

- | | |
|--|-----------------------------------|
| 1.5 Listening (m=2.58) | 5. Basic Vocabulary (m=2.35) |
| 1.5. Speaking (m=2.58) | 6. Vocational Vocabulary (m=2.23) |
| 3. Vocational Safety Vocabulary (m=2.52) | 7. Reading (m=2.00) |
| 4. Pronunciation (m=2.44) | 8. Writing (m=1.92) |

The average overall ratings provided by respondents to professional development topics they felt would help them better serve their ELL students on a 4 point Likert type scale with a low of 1 and a high of 4 was m= 2.76. Sub-category mean ratings ranged from a high of m= 3.03 and a low of m= 2.26. A descending rank ordered listing of these sub-categories based on mean ratings is provided in chart 2.

Chart 2. Descending Rank Order Listing of Professional Development Topics Selected

- | | |
|--|-------------------------------------|
| 1. Vocational Safety Vocabulary Development (m=3.03) | 9. Writing Activities (m=2.81) |
| 2. Study Skill Development (m=3.01) | 10. Career Counseling (m=2.71) |
| 3. Reading Comprehension Strategies (m=2.99) | 11. Cultural Understanding (m=2.62) |
| 4. Listening Strategies (m=2.88) | 12. Speaking Skills (m=2.60) |
| 5. Vocational Vocabulary Development (m=2.87) | 13. Computer Skill Dev. (m=2.56) |
| 6. Basic ELL Techniques (m=2.86) | 14. Pronunciation Skills (m=2.52) |
| 7. Basic Vocabulary Development (m=2.84) | 15. Native Literacy Dev. (m=2.26) |
| 8. Strategies for more Family Support (m=2.82) | |

Other findings relate to areas of support, collaboration or ability of teachers in regard to meeting the needs of the ELL Students. These were rated on a 4 point Likert type scale with a low of 1

and a high of 4. Mean ratings on these items ranged from a low of 1.52 to a high of 2.89. A descending rank ordered listing of these sub-categories based on mean ratings is provided in chart 3.

Chart 3. Levels of Support, Collaboration, or Ability in Descending Rank Order

1. The average level of English language communication you have with your ESL students
(m= 2.89)
2. The level that you feel prepared to teach your vocational content to your ESL students
(m=2.50)
3. The degree of administrative support you receive to meet the needs of your ESL students
(m=2.36)
4. The overall level of support/resources available to help you teach your LEP students
(m=2.35)
5. The level of in-service education support you receive to meet the needs of your ESL students
(m=1.93)
6. The level of collaboration you have with the English language teacher at the sending school
(or in your school) to meet the needs of your ESL students (m=1.65)
- 7.5. The level of collaboration you have with the English language teacher at the sending
school (or in your school) to develop an English safety vocabulary for your LEP students
(m=1.52)
- 7.5. The level of collaboration you have with the English language teacher at the sending
school (or in your school) to develop hands-on safety instruction in the vocational classroom
for your LEP students (m=1.52)

Answers to Research Questions

1. What are the enrollment patterns of ELL students in CTC's by occupational areas of study?

There were 56 different occupational content areas identified by respondents to this survey. Further, this was distributed among 283 males and 165 female students. The occupational areas with the highest enrollments, in descending frequencies, for male ELL students were electronics (n=51), heating ventilation and air conditioning (n=48), auto mechanics (n=36), auto body repair (n=28), masonry (n=26), carpentry (n=23), culinary (n=22), printing (n=18), cabinet making (n=17), computer related (n=12), and welding (n=11). Occupational enrollments for male ELL students in frequencies less than 10 were not listed in this report.

The occupational areas with the highest enrollments, in descending frequencies, for ELL female students were health occupations (n=94), cosmetology (n=48), culinary (n=17), and computer related (n=12). Occupational enrollments for female ELL students in frequencies less than 10 were not listed in this report.

2. What are the English language proficiency levels of CTC students in their occupational area of study?

The respondents rated the average level of their students overall ELL English language skills as fair (m=2.33) on a 4 point Likert type scale with a low of 1 and a high of 5. Sub-category mean ratings ranged from a high of 2.58 to a low of 1.92. A descending rank ordered listing of these sub-categories based on mean ratings is provided in chart 1.

3. What levels of collaboration exist between CTE teachers and English language teachers to meet the occupational safety needs of the ELL student?

(7a.) “The level of collaboration with the English language teacher at the sending school (or in your school) to meet the occupational safety needs of the ELL students” was rated rather low (m=1.52) on a 4 point Likert type scale with a low of 1 and a high of 4.

3a. Is collaboration limited to instruction on the development of a safety vocabulary?

(7c.) “The level of collaboration with the English language teacher at the sending school (or in your school) to develop an English safety vocabulary for your LEP students” was rated rather low (m=1.52) on a Likert type scale with a low of 1 and a high of 4.

3b. Is collaboration for instruction on the development of a safety vocabulary coordinated with hands-on safety practices in the CTE classroom?

(7e.) “The level of collaboration with the English language teacher at the sending school (or in your school) to develop hands-on safety instruction in the vocational classroom for your LEP students” was rated rather low (m=1.52) on a 4 point Likert type scale with a low of 1 and a high of 4.

4. What are the types and levels of instructional support being provided to CTE teachers to meet the needs of their ELL students?

There were two survey questions that addressed this question. The first, (7g.) “The overall level of support/resources available to help you teach your LEP students” was rated at a moderately low level (m=2.35) on a 4 point Likert type scale with a low of 1 and a high of 4. The second,(7b.) “The degree of administrative support received to meet the needs of your ELL students” was also rated at a moderately low level (m=2.36) on a 4 point Likert type scale with a low of 1 and a high of 4.

5. What additional ELL instructional support is needed by CTE teachers to meet the needs of their ELL students?

Respondents were able to rate 15 possible professional development topics in regard to providing help to their ELL students. The average overall ratings provided by respondents to professional development topics they felt would help them better serve their ELL students on a 4 point Likert type scale with a low of 1 and a high of 4 was $m = 2.76$. Sub-category mean ratings ranged from a high of $m = 3.03$ for “vocational safety vocabulary development “and a low of $m = 2.26$ for “Native literacy development.” A complete descending rank ordered listing of these sub-categories based on mean ratings is provided in chart 2.

Also collected were a revealing set of comments from survey respondents. These have been categorized in several areas in order to provide focus.

Comments

A. Little or no experience with LEP students:

I do not have any LEP students this year but I have had a few in the past.

I have not had students with language difficulties for several years.

In my entire career I've had only one LEP student.

No LEP students - no exposure to LEP needs.

I do not have LEP students in my shop this year.

To the best of my knowledge I have no LEP students.

No LEP students at present time.

I do not have any [LEP students].

New to LEP teaching.

LEP students are not going away

I have had more LEP students in the past and will get more in the future.

B. Teacher request for support and/or professional development

I fell as though I need more collaboration with the sending school teachers. I almost feel like I need to take a sabbatical and enter the sending school classes to see how they manage and apply ESL strategies & techniques because I do not test students to see what

level of ESL they are on initially. I believe that I need to be taught the process of giving the exam and what the interpretations mean!

I have three ESL students who were dumped in a standard I word class - no support what so ever!

There is no collaboration with sending schools.

I have never seen or heard of anyone at our school receiving help from any home school teachers.

C. Existing support

My instructional aide has been helpful in instructing these students when they don't understand a term or direction.

Since I speak the language my LEP students speak, I'm able to understand them easily and can translate for them for the most part.

D. Teacher frustration and/or resistance

I do not have now and have never had an ESL student assigned to my class. While I feel English, reading and study skills are important I am finding less and less time to have the students work hands on and learn manual skills. Our time with these students is limited and it is my belief that while we teach academics as it relates to each trade, remedial work needs to be more adequately provided at the Sending schools. In regards to in-service education topics: While I feel these are all important educational enrichment areas I feel my students would be better served by concentrating on the majority of them during their sending schools time. The time they spend at the career center is already limited by our diverse schedule and numerous activities and more time needs to be spent in hands on learning of the trade.

Vocational teachers are not English teachers and are not required to deliver this type of instruction. It belongs in an English class and if the students are not prepared in this area then stop looking in other subject areas and start looking at English classes. I am not an English teacher or language teacher, however when students come into my classroom that have trouble with the English language, then they are at a distinct disadvantage. Now, whose problem is this? Mine, since they cannot understand what I am saying or what they are reading, or the English program, or is it the student's problem? Our courses are based on a specific amount of time and if you expect us to deliver instruction in reading and writing then we will not have enough time to complete our program, not to mention the fact that we are not certified to deliver instruction in this area.

There is no support from any home school. A low functioning LEP student is essentially set up for failure. Plumbing requires basic communication skills or a one-on-one contact with the student. Should this approach be utilized, the program will not properly address the needs of the average or advanced student. Think about it; we do not teach calculus without first mastering algebra. It is the same concept.

Family uses student frequently to baby-sit, translate, etc. and student misses too many school days.

E. Teacher disregard or dismissal of need for LEP support

I teach mathematics in my classroom, I do not associate with the shops regarding English, reading and writing. I frequently look in the shops for mathematics support. With regards to mathematics, the level of English language support is not usually necessary. I know the support is there when and if I need it. Most of the time the math instruction itself is where the support comes into play. Again, the support is there for the mathematics understanding as well.

I don't need to have verbal communication to teach basic hands-on skills.

F. LEP students low level of performance and/or understanding

English language skill areas: Some students did well in all areas. A few students did poorly in most areas listed above.

I have had Russian and Spanish [students] prior to this year. They had difficulty learning technical skills.

ELL INSTRUCTIONAL MODELS

Also conducted in this research activity was a review of instructional models used with ELL students and the identification of selected case studies of CTC's involved in ELL instruction. Selections from this review have been summarized in this report. Two case studies involving ELL instruction at CTC's will be described later in this report.

Two basic ELL instructional models dominate the types of programs for English Language Learners. These are the Bilingual and English as a Second Language, ESL - each with several variations. Within the ESL programs are variations such as Sheltered English Instruction, Structured English Immersion, Content-Based ESL and Pull-Out ESL. Most high schools in PA use forms of Sheltered English Instruction taught at different levels of proficiency, until the student is ready to transition out of the program. ELL learners are grouped together for ESL classes, and often stay grouped together for other academic subjects such as social studies and English; they are "sheltered" from mainstream classes in order to concentrate on language skills until they are more proficient.

Sheltered Instruction is often a specialized way of teaching used by the student's ESL teachers but those same skills are also used by many content area teachers. In best practices, this teaching

method has evolved through a decade of research and field testing by the Center for Applied Linguistics into its present form, called SIOP, Sheltered Instruction Observation Protocol, which is an observation instrument that codifies all its elements. It should be noted that many of the instructional strategies used in this model are not unique to the SIOP model and are often found in the delivery of instruction in other educational content areas. One set of instruction that is particularly noteworthy, due to its potential for broad application, are the scaffolds used in reading instruction.

Another is the type of interactive instruction for the demonstration of a manipulative skill often used in CTE settings. This is well suited for the ELL student in CTE settings since it is consistent with the theory that language acquisition is enhanced through meaningful use and interaction in the study of content material often used in the teaching of CTE manipulative skills. Lessons that integrate the four interdependent language processes of listening, speaking, reading, and writing, and language and content objectives are best when joined in particular subject areas. Teachers generally present the regular, grade-level subject curriculum with some modifications. Content is made comprehensible through techniques such as the use of visual aids, modeling, demonstrations, graphic organizers, vocabulary previews, predictions, adapted texts, cooperative learning, peer tutoring, multicultural content, and native language support. All of these strategies can be used by content teachers, not to replace effective methods of teaching, but to enhance them. SIOP techniques are also compatible with standards-based teaching.

Two CTE Programs that effectively serve English language learners have been selected to serve as case studies for this report. Each of these case studies is based in Massachusetts due to the widely recognized ESL and ELL history with vocational education.

Case Study 1: Madison Park Technical High School, Roxbury, MA

Background

In 1998 Madison Park Technical Vocational High School received funding for a five year whole school change program. The program's ultimate goal was to restructure and improve the technical vocational high school so that LEP students enrolled would receive the academic, language, guidance, and career-oriented supports necessary to succeed academically and in their vocational pathways. Up until this point Madison had a strong bilingual program offered in the

five languages most prevalent in the ELL student body. These included, Spanish, Portuguese, Haitian, Vietnamese, and Kriolu, the Cape Verdean language.

In order to address the issue of LEP students being taught vocational and technical educational classes by monolingual teachers, and to improve their comprehension of safety issues and to support increasing language proficiency in content area classes, a "Bilingual Vocational Liaison" model was developed. For instance, to instruct students in the safe handling of technical and shop equipment in vocational classes, the model provided team teaching by English-speaking teachers and bilingual teachers who spoke the target languages of the students, i.e. Spanish, Portuguese, Kriolu, Haitian and Vietnamese. This model also gave bilingual academic teachers an opportunity to see first hand the vocabulary and competencies their students were challenged to master in their vocational and technical programs. Other features included the following:

- The continued implementation of the Bilingual Vocational Liaison model which teams five bilingual academic teachers with monolingual, vocational teachers in order to support second language learners.
- An extensive professional development program which includes university courses, workshops, institutes and ESL coaching to address issues such as literacy, meeting ESL standards, equitable assessment, technology, adapting curriculum, etc. which are critical to serving our LEP populations.
- The ongoing collaboration of the Safety Task Force which continues to develop the Multilingual Safety Handbooks, posters and PowerPoint presentations in the various technical/vocational areas for dissemination to staff and students throughout the school and district.

The program ran for seven years and, although it was successful in terms of student performance, it was challenging for staff. In addition to the support in the classroom, students were pulled out of various shops and vocational disciplines to attend Vocational English as a Second Language, VESL, classes on medical technology, safety issues, etc... It was difficult to coordinate scheduling because ESL instructors needed special training to teach the VESL components and they had to remain very flexible about creating and coordinating instruction for shifting groups of learners – it was an intensive and demanding curriculum. One of the final products was a beautiful booklet on safety issues published in the five languages. The grant money was

discontinued in 2002 and the program ended, although the school, at that point, was staffed by many bilingual teachers, able to teach not only ESL classes but content area classes as well.

ESL/Immersion Program

In 2003, the Massachusetts State Board of Education changed the bilingual laws, replacing them with an English immersion model. Up until this point, Madison had a strong bilingual program. This past school year was the first year under the new system. In preparation, many teachers at Madison Park received professional development in sheltered English language instruction methods.

In addition to the required English Immersion program, the state board has mandated that all teachers should be “highly qualified” to teach English Language Learners if they have only the minimum of one student in a class. Within the school district of Boston teachers are given various incentives to pursue professional development: stipends are given to teachers, and some programs are offered at the University of Massachusetts at half the cost of tuition. Professional Development is voluntary at this point. At Madison Park many content-area teachers have been trained in sheltered English methodologies. In addition, Language Acquisition coaches are assigned to various schools in the Boston area to help teachers adjust to the new immersion program. Two coaches have been assigned to Madison and two days a week throughout this past school year, and offered Sheltered English Instruction, SEI, on a voluntary sign-up basis to the 250 teachers at the school, 70 are vocational education teachers.

The school has other existing structures that support ESL students in vocational education. ESL students are grouped according to ESL levels for academic subjects which is not the case for vocational education classes where students of mixed language abilities can attend classes of their choice. However, recent immigrants or students whose English is very limited must wait at least six months before entering a shop class. These students attend two units of an Intensive ESL class a day, 180 minutes of instruction. During freshman year students attend a rotation of mini classes that introduce them to all the school’s choices in vocational education and by the end of the school year students make decisions about their vocational program for the following year. There are four academies: Freshman academy, and three others in the fields of Health, High Technology, and Craft, Design and Transportation, each with its own director.

Language paraprofessionals assist in vocational education classrooms and are now required to have more professional development and must pass competency testing. New hires have received technical training in the respective vocational educational field. In one program, run by the school, trained bilingual paraprofessionals accompany seniors, in their senior year community placement program, to hospitals to explain safety language and issues within the workplace setting.

Outcome

When the new Massachusetts state law went into effect, many administrators misunderstood one of the tenants, which stated that a student couldn't stay in the ESL/Immersion program for more than two years. Consequently, at Madison Park, a large number of students cycled out of the program early and went into regular education classes. In actuality the state law was more lenient in its first year, and the two-year limit was not as strict as first thought; those students who need the support can stay beyond the two year limit. But at Madison Park the sudden mainstreaming of nearly half of the 500 ELLs at Madison and the loss of ESL/bilingual staff, which could have been a disaster, turned out to be a boon. Many bilingual staff were rehired by the school as academic content-area teachers who could provide bilingual support to ESL students. This change brought the bilingual staff to a level of 33%.

According to the ESL specialist at the school, the district is still in the process of refining the new regulations. It has been a difficult adjustment for bilingual teachers who now face a room full of diverse learners instead of all Spanish or Vietnamese-speaking classes. Teachers have had to adjust to instruction and textbooks in English and to requirements that allow them to use much less bilingual teaching. Based on classroom observation, the ESL specialist considers the sheltered English approach effective. Most of the teachers are receptive to being trained in the use of this method, however there were some older vocational education teachers who were resistant to change. It's still too soon to tell how successful the new program is. The bilingual teachers are still feeling their way.

In her opinion as an educator, the best program for ELLs would provide a maximum of two years of bilingual support. When the students have graduated out of the bilingual level of instruction,

they should receive additional ELL support as needed within the English Immersion model and then mainstreamed.

Case Study 2: Lowell, Massachusetts Sheltered Instruction Observation Protocol, SIOP, Initiative

The Sheltered Instruction Observation Protocol, SIOP, initiative in Lowell, Massachusetts began even before the state passed the 2002 referendum which eliminated the bilingual education model. The state's new immersion model mandated that mainstream teachers would become teachers of English Language Learners. To prepare for the changes, the Lowell school district began a training-of-trainers program in 2000 in Sheltered English Instruction methods, including SIOP. Today the initiative is quite extensive: the goal is to have all of the 1200 or so k-12 teachers in the school district trained in SIOP. More than 800 have been trained so far. The school district has completed a first round of training, and is now in the second round. There is a possibility of a third round as well.

Background

According to the ELL Assessment and Testing Specialist for the school district, it is an "absolute must" for content area teachers to be trained in this method, especially at the middle and high school levels, given the demographics of Lowell and the effectiveness of the method in content instruction for ELLs.

Over half of Lowell's 16,500 residents speak a language other than English at home. The city has 30,000 Cambodians which accounts for 25% of the population. Hispanics make up another 20%, and Portuguese speakers, 10%. Before the SIOP Initiative began, the school district offered other forms of professional development for second language acquisition training. The district has many bilingual teachers and there are many supports in place for ELLs at all levels in the district's schools; instructional specialists are staffed at each school, and can follow up on SIOP methodology with teachers. Further, ELL lead teachers and tutors are also available at each school.

Although Lowell is a very poor school district, the 1993 Massachusetts educational reforms which changed schools districts dependency on local tax-based funding provided a means of using state funds to support the SIOP Initiative.

Description of SIOP training programs

The voluntary SIOP trainings are typically delivered in four day Institutes which are either delivered on a district-wide basis or at individual schools. Two trainers present as a team using the Center for Applied Linguistics (CAL) text, *Making Content Comprehensible for English Language Learners; The SIOP Model* (Echevarria, Voght, & Short, 2004). The most effective delivery system for optimum participation is to provide substitutes in order to allow teachers to attend training sessions during the school day. Saturday and after-school programs were offered as well. Although the school district has offered some financial incentives, the main incentive has been teacher interest in gaining new skills to help reach their ELL students.

Outcome

It was reported that the training has been very good for content area teachers, especially at the secondary level. It has improved teaching practices in general. It's hard to say if the changes are reflected in the state wide MCAT test scores. SIOP was endorsed as an excellent tool for middle and high school level teachers who must teach more difficult content to ELLs. The training gives them a wider range of instructional practices and it enables them to make assessments of their ELLs to see if the academic content has been acquired. As a follow-up observation, it was noted that some teachers are using the new methods and some are not.

The Initiative was part of a state-wide movement in the direction of training content area teachers, not just ELL specialists, for ELL instruction. The Massachusetts Department of Education is currently (i.e.,2005) reviewing a referendum which will mandate a second language learner certification process for content area teachers; it will require 60 to 100 hours of professional development in SIOP and/or other workshops and courses.

The city's single public high school, Lowell High School, has 4,000 students who are placed into nine academies within the school. Some of these academies provide career education programs for students, such as Health and Bio-Science, Hospitality, and Technology. Other students who are interested in different fields of career and technical education have to apply in the 9th grade to the Greater Lowell Vocational Technical School, an area vocational and academic school serving the city of Lowell and surrounding areas, with an enrollment of approximately 2,000 students.

The vocational school provides sheltered English immersion classes for ELLs in grade 10, then begins mainstreaming students as soon as possible so that by senior year almost all the students are in regular classes. There are no SIOP-trained content area teachers at the school. Although there are a large amount of ELLs at the Lowell High School, far fewer (i.e. 34) currently enrolled at Greater Lowell Vocational Technical School at the time of this investigation.

Typically 25-30 students will apply from Lowell in the ninth grade; they are assessed for placement at the vocational technical school, but about half actually choose the school, opting to stay at Lowell High School where the support is located. The vocational school's director of Title I, English and Math, indicates that it's a matter of demographics, but also admits that professional development of staff is an important issue and will need to be addressed at the school, especially if content area teachers will be required by the Massachusetts State Board of Education to be skilled at teaching ELLs.

TEACHING TIPS FOR SUCCESS WITH THE ELL STUDENT

The following teaching tips have been summarized from the Sheltered Instruction Observation Protocol, SIOP Model, (Echevarria, Voght, & Short, 2004). These have been presented in outline form in order to provide some direction that can be used for instructional preparation and delivery. For more in-depth understanding of the SIOP, model, it is recommended that the complete text be studied or readers may visit www.siopinstitute.net

Lesson Preparation

Supplementary materials:

- Use hands-on manipulative

- Use real-life objects
- Pictures: photos, illustrations, even teacher-made drawings
- Visuals: overheads, models, graphs, charts, timelines, maps, props, and bulletin board displays
- Multimedia: tapes, videos, DVDs, interactive CD-ROMs, websites (review for readability, especially for beginning and intermediate level learners.)
- Demonstrations and modeling of following steps and using language appropriate to the work or theme.
- Fiction and non-fiction related literature to support units in content area teaching
- Adapted text that retains major concepts but provides easier readability

Ways to Adapt Content:

- Use graphic organizers (story or text structure charts, maps, Venn diagrams, word webs, time lines, etc.
- To help student identify key concepts and use as visual clues for speaking and writing
- For pre-reading, to provide a guide and build background knowledge
- With reading, to help focus students' attention and ability to make connections
- Make outlines as handouts to provide scaffolds for students when they read and study dense text
- Jigsaw text reading: when approaching difficult-to-read text, divide class into groups of "experts" who read together, discuss and extract essential meaning from their assigned part of the text to share later with the whole class

Building Background

Link new concepts to student's background knowledge or experience and make links between past and new concepts. Question their background knowledge. As in other question -response activities you can provide a model for beginning and intermediate ELL students; *when I was*

in _____ we used to _____, or when I worked at _____ I noticed that _____.

Emphasize key vocabulary:

- Explain new vocabulary, prior to the lesson/reading, with as many examples, synonyms or cognates as possible to convey meaning. Have student explain in her own words what the term means.
- Have the students self-collect key words in the text as individuals, or small groups, for whole group.
- Personal dictionaries can be used by students to record unknown words individually, in pairs or in groups to store new words for teacher clarification and help.
- Word Walls are a bank of terms kept on classroom walls as a reference for students, carefully maintained and changed as needed. Every Friday students can decide which terms they no longer need on the wall.
- Concept Definition Maps: use as a guided exploration with students. For example, from the new term "revolution" first a definition is put above the term, "Overthrow of government", then adjectives and phrases are placed on the side, "can be violent, usually political," and finally some examples of the word are put below it, "American Revolution, Russian Revolution".
- Delete or always explain your or a student's idiomatic speech. Phrases such as, "this ran circles around me" confuse ELL students - they might think part of your lesson is about spheres or circles. Misunderstandings, confusion and incomprehensibility often result.

Comprehensible Input

To convey clear understandable directions, explain classroom and homework tasks both orally and in writing, in a step-by-step format, preferably accompanied by visual representation. Use modeling, visuals, hands-on activities, and demonstrations wherever possible.

Adjust speech rate and use slower, clear enunciation and simple sentence structure.

Always use a variety of techniques in your presentation: adapting content to students' proficiency level, highlighting key vocabulary, using scaffolding techniques and following up the acquisition of new material with hands-on activities.

Learning Strategies

To foster student-centered use of learning strategies teachers should employ:

- Mnemonics to aid memory

- Use the "**SQP2RS**" framework to guide students in:
 - **S**urveying or scanning text for 1-2 minutes
 - **Q**uestioning from reading, with teacher guidance
 - **P**redicting, based on questions
 - **R**eadng to search for answers and confirm, or not, predictions
 - **R**esponding by answering questions and formulating new ones for next section of text
 - **S**ummarizing, orally or in writing, the text's key concepts

- Use the "**GIST**" summarization procedure:

Students and teacher read section of text printed on transparency. Then assist students in underlining ten or more words or concepts that are decided as most important. List these on the board, write a summary statement using as many of the listed words as possible. Repeat for subsequent sections then write a topic sentence to precede summary sentences and the end result is a summary paragraph.

Use scaffolding techniques such as :

- Paraphrasing - restating student's response in order to model correct English usage

- Model aloud how to think about, strategize and monitor understanding
- Reinforce contextual definitions, i.e. Aborigines, the people native to Australia, were being forced from their homes.

Interaction

- Grouping configurations: Flexibility is important, i.e. the use of partners, triads, and small groups that are selected for homogeneous learners or for mixed abilities, according to language proficiency. Sometimes beginners can stay together to practice a new skill and other times a mix of ELLs and native speakers is best.
- Wait time: Teachers and other students should provide ELL students sufficient time to finish their utterances and enough time to comprehend questions without filling up the silence with their own speech. Have more advanced students write down their answers. A choice of two responses can be provided to the ELL student but he must articulate the final answer.
- When possible, clarify key concepts in the student's first language. If a bilingual instructional aide, or peer is available or written materials are in the student's first language, the ELL student does benefit greatly by this level of support. Website translation services and bilingual dictionaries are useful, as well

Practice/Application

For English language learners, applications must also include opportunities for them to practice language knowledge in the classroom by working in groups, reporting information out loud and/or in writing while at task, explaining processes to peer, and reporting results back to the whole group.

Design activities that give the learners opportunities to speak, read, listen and write, increasing the chances for students with stronger modalities in any one of those skills to make progress.

TIPS FOR INTERACTING WITH BEGINNING AND INTERMEDIATE LEVEL ELL STUDENTS

- Learners appreciate clear, simplified and slower speech
- ELL students often understand speech before they can produce it
- Create an atmosphere of encouragement in your classroom
- Explain and encourage the student's use of questions
- Keep idiomatic expressions to a minimum
- Don't assume the student understands when he/she nods and smiles
- After you give an explanation, ask the student to paraphrase it
- Recognize the student's understanding of the student/teacher relationship

Bibliography and Selected Websites

Castellano, M., Stringfield, S., Stone III, J. R. (2002). *Helping Disadvantaged Youth Succeed in School: Second-Year Findings from a Longitudinal Study of CTE-Based Whole-School Reforms*. Columbus, Ohio: National Dissemination Center for Career and Technical Education.

Crandall, J. (1998). Collaborate and cooperate; teacher education for integrating language and content instruction. *English Teaching Forum* online, 36:1, p. 2.
<http://exchanges.state.gov/forum/vols/vol36/no1/p2.htm>

Echevarria, J., Voght, M., & Short, D. (2004). *Making Content Comprehensible for English Learners – the SIOP Model*. Pearson, NY. www.siopinstitute.net

Marwick, K. and Johnson, K. A. (2004). *Minnesota's future workforce; educational models and effective practices in occupational English for immigrant workers*. Minneapolis, Minnesota: McKnight Foundation.

PA Intermediate Unit 12. (2002) PaELL Resource Kit for Educators, Students and Parents. Pennsylvania Department of Education, Harrisburg, PA www.paell.com

Platt, E. (1996). *The Vocational Classroom: A Great Place to Learn English*. Washington, DC: Center for Applied Linguistics (ED 406 856).

Platt, E.; Shrawder, J.; Ujhelyi, Z.; and Wannawati, T... (1992) *Collaboration for Instruction of LEP Students in Vocational Education*. Berkeley: National Center for Research in Vocational Education, University of California, 1992. (ED 351 549)

<http://www.publicschoolreview.com/> Profiles of public elementary, middle and high schools in the USA.

<http://www.coe.ilstu.edu/icsp/Products/LEP%20Resources.doc> Illinois Center for Specialized Professional Support (ICSPS) Special Populations Project. LEP Resources, Illinois State College of Education, Normal, Illinois

www.paell.com PDE website for the Pennsylvania English Language Learner electronic version of PaELL Resource Kit for Educators, Students and Parents

<http://www.ed.gov/about/offices/list/oela/index.html?src=oc> US Department of English Language Acquisition, Language Enhancement and Academic Achievement for Limited English Proficient Students.

APPENDIX A

Transmittal Letter to Coordinator

Transmittal Letter to CTC Director

Survey Instrument

Dear Coordinator:

Thank you for agreeing to serve as the site facilitator to coordinate the distribution, administration and return of the “Survey on the Support Needs of Career and Technical Education Students Who Have Limited English Proficiency, LEP”

As indicated in your response to our request, I have enclosed XXX copies of the survey instrument (this includes 5 extra copies in case they may be needed).

These surveys may be administered in an individual or a group fashion.

The greatest efficiency for the administration of the survey instrument is likely to be achieved if the instrument is administered in a group fashion at a faculty meeting. Completion of the survey instrument takes approximately 10 minutes

If the instrument is to be administered on an individual fashion, please make arrangements to collect the completed surveys in-house.

Send back all completed survey instruments in the postage- paid, return- addressed envelope which has been provided for your convenience.

Do not hesitate to contact me if you have any questions in regard to this activity. I can be reached at (215) 204-6249 or chet.w@temple.edu

Sincerely,

Chester P. Wichowski, D.Ed.
Associate Center Director, and
Coordinator of Research and Development

Dear CTC Director:

The enclosed survey instrument has been developed by the Center for Professional Development to explore the support service needs of Career and Technical Education teachers and their students with limited levels of English language proficiency.

As you may be aware, the number of students with Limited English Proficiency LEP has been increasing over the last several years. In several counties in the eastern region of Pennsylvania the level of LEP students ranges from 10% to as high as 18%.

In operation, many of the primary English language acquisition needs of the LEP student are being addressed through programs delivered at the secondary level sending school. Additional levels of support, in the form of collaboration between English language development faculty in the sending high school and the Area Vocational Technical Schools faculty as it relates to safety procedures are recommended in the 2002 PDE Guidebook for Planning for English Language Learners.

Although the Basic English language needs of LEP students are being met through programs delivered through sending schools, the language support needs of the LEP student while they are participating in the CTC, and the instructional support needs of the career and technical education teacher working with LEP students are largely unknown. The enclosed survey has been designed to help define these needs and serve as a foundation to develop additional support.

Please distribute this survey to your teachers if you are interested in having your school participate in this survey effort. Participation in this survey is voluntary. There is no obligation to complete this survey. Further, if your teachers participate in the completion of this survey, all information collected will remain anonymous and any data collected will be pooled for analysis. No names of schools, teachers or students will be collected or reported **Completion of this survey will constitute informed consent on behalf of the respondent.**

Return completed surveys in the enclosed postage paid return addressed envelope. Do not hesitate to contact me if you have any questions or wish to discuss participation in this research effort. I can be reached at (215) 204-6249 or chet.w@temple.edu

Copies of the results of this survey will be distributed to participating schools. Thank you in advance if you have elected to participate in this survey research effort.

Sincerely,

Chester P. Wichowski, D.Ed.
Associate Center Director, and
Coordinator of Research and Development

Survey on the Support Service Needs of Career and Technical Education Students Who Have Limited English Proficiency, LEP

This survey has been developed by the Temple University Center for Professional Development in Career and Technical Education to determine the instructional support needs of the: (a) career and technical education students who have Limited English Proficiency LEP, and (b) career and technical education teachers when working with LEP students.

Participation in this survey is voluntary. There is no obligation to complete this survey. Further, if you do participate in the completion of this survey, all information collected will remain anonymous and any data collected will be pooled for analysis. No names of schools, teachers or students will be collected or reported. **Completion of this survey will constitute informed consent on behalf of respondents.**

Directions: Please answer the following questions to the best of your ability and return completed surveys to the individual who has been designated to collect them in your school. Your participation in this survey effort is greatly appreciated.

1. What setting is your school located in? ____ a. rural ____ b. suburban ____ c. urban
2. What vocational content area(s) do you teach?
3. How many LEP students are enrolled in your vocational class: ____ a. male ____ b. female
4. On average, are the LEP students in your vocational class there because it was their:
____ a. 1st choice ____ b. 2nd choice ____ c. 3rd choice ____ d. I do not know

5. Rate the average level of your LEP students' English language ability in the following areas:

English Language Skill Areas	Poor	Fair	Good	Very Good	Excellent	Unsure
a. Pronunciation						
b. Speaking						
c. Writing						
d. Reading						
e. Listening						
f. Basic vocabulary						
g. Vocational vocabulary						
h. Vocational safety vocabulary						

Comments:

1	2	3	4	NA
LOW			HIGH	(Leave Blank)

____ d. The level of collaboration you have with the English language teacher at the sending school (or in your school) to develop an English safety vocabulary for your LEP students.

____ e. The level of collaboration you have with the English language teacher at the sending school (or in your school) to develop hands-on safety instruction in the vocational classroom for your LEP students

____ f. The average level of English language communication you have with your ESL students

____ g. The overall level of support/resources available to help you teach your LEP students

____ h. The level that you feel prepared to teach your vocational content to your ESL students

Comments: