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## Constructivism for the English-as-a-second-language learning environment and professional development

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CONSTRUCTIVISM FOR THE ENGLISH-AS-A-SECOND-LANGUAGE  
LEARNING ENVIRONMENT AND PROFESSIONAL DEVELOPMENT

---

A Project  
Presented to the  
Faculty of  
California State University,  
San Bernardino

---

In Partial Fulfillment  
of the Requirements for the Degree  
Master of Arts  
in  
Education:  
Teaching English to Speakers of Other Languages

---

by  
Starley Beatrix Dullien

March 2005

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Starley Beatrix Dullien  
March 2005

Approved by:

  
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Date

  
Dr. Richard Ashcroft, Second Reader

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## ABSTRACT

The aim of this thesis is to provide teachers of speakers of other languages (TESOL) in adult education programs with a background in constructivism and adult-learning theory, to facilitate a constructivist-learning environment (CLE) in the English-as-a-second-language (ESL) classroom, and provide a constructivist perspective on teacher professional-development programs.

The examination of computer-enhanced constructivism in the ESL classroom and assessment of web-based training for TESOL professional development illustrate the benefits of incorporating the computer and the Internet within a constructivist framework.

Finally, a professional development workshop and two instructional plans, framed in constructivist and adult-learning theories, serve as models for TESOL educators.

## ACKNOWLEDGMENTS

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## CHAPTER ONE

### INTRODUCTION

#### Background of the Project

Adult education has a long history in California, beginning in 1856 at an adult evening school in San Francisco. In 1976, the Palm Springs Unified School District responded to the needs of adults within the local community by opening the Palm Springs Adult School. The adult education programs fall under the jurisdiction of the school district's Board of Education trustees, who are committed to upholding the Education Code and the California Administrative Code, two laws that provide the framework for the adult education programs (State Department of Education [SDE], 2000).

One of the adult education programs for which California provides support from the general education fund is English as a second language (ESL). According to the State Department of Education (2000), besides the benefits of continued, lifelong education, the mission of ESL programs is to provide adults with English-language proficiency to enable them to compete in the workplace, become self-reliant members of the community, and develop confidence as individuals. Providing the opportunity to

develop English-language proficiency is a mounting challenge in California, a state where over half of all immigrants coming to the United States live (State Department of Education, 2000). By the year 2020, according to the California Council for Adult Education (2000), 59 percent of the population of California will be comprised of immigrants in need of language-acquisition assistance and opportunities. In the year 2000, 64 percent of all students enrolled in adult-education programs in California (a total of 883,176) were ESL learners (California Council for Adult Education [CCAEE], 2000).

With the passage of Proposition 227 in June 1998, \$50 million was allocated for a period of ten years to provide programs in English-as-a-second-language to members of the community who make a pledge to, in turn, help the children of their community to increase their English proficiency (California Department of Education [CDE], 2001). This program, known as the Community-Based English Tutoring (CBET) program, is available in 15 public school locations within the Palm Springs Unified School District. The program, implemented by the Palm Springs Adult School, had 2182 English Language Development (ELD) participants for the year 2003 to 2004. The most positive outcome has been an increased desire of parents to read English books to their

children. Instructors have also observed an increase in the level of self-esteem and self-confidence in parents.

Principals have reported that more parents are attending parent nights and conferences.

The Palm Springs Adult School addresses the needs of the adult ESL learner by providing easy access to CBET programs in Palm Springs, Cathedral City, Thousand Palms, and Desert Hot Springs. Efforts are concentrated on providing parents and other participants with effective and meaningful ESL instruction that will facilitate their interactions in their community, at their workplace, and with their families.

#### Characteristics of the Adult Learner

A profile of the adult CBET/ESL student, based on the Characteristics of Adults as Learners (CAL) model by Cross (1981), contains variables describing personal and situational characteristics. The personal characteristics are age, phases of life, and stages of development. Each of these characteristics, in turn, has variables such as physical and intellectual abilities, and abilities that evolve from experience. The situational characteristics include variance between full and part-time commitment to learning and whether the learning is voluntary or necessary due to outside influences. Considering the possible

variables, the CBET/ESL classroom is a complex learning environment that mirrors the diversity of the community.

Knowles (1990) provided five assumptions about adult learners that help in profiling the adult CBET/ESL learner. The first assumption is that adults are self-directed as learners. Next, each adult's experience level is vast and varied. Furthermore, the degree of readiness to learn depends upon the social role of each adult, the responsibilities accompanying this role, and the importance of managing this role. The fourth assumption is that adults need to apply their acquired knowledge immediately in an authentic and real environment. Finally, the adult learner has internalized the motivation to learn.

Effective instructors in the CBET/ESL program must have an awareness of these variable adult profiles and applicable knowledge of andragogy (adult learning theory). The combination of these skills--profiling adult learners and recognizing how adults learn--assures that the teacher is discerning about the target audience.

#### Teaching in the Community-based English Tutoring Program

Preliminary observation of the CBET/ESL instruction provided at twelve public schools within the district reveals inadequacies in multicultural inclusion, teacher training, instructional alignment, and effective assessment



techniques. Implementing changes to the existing system will require administrators and teachers to develop an understanding of a modern paradigm that focuses on learning, rather than teaching. To achieve this goal, the effectiveness of traditional instruction must be analyzed and teachers must be held accountable for providing meaningful, authentic, and applicable instruction.

Methodologies based on behaviorist teaching approaches are the predominant approaches used in the Palm Springs Adult School CBET/ESL classroom. However, the analysis of whether or not a given approach is effective should not be based solely upon which learning theory it has as its foundation. Some behaviorist methods, for example, such as the audio-lingual method, have merit when the goal is to achieve proficiency in pronunciation. In addition, the direct approach, a behavioral method, is effective in some contexts, for example, when implemented by the Goethe Institute and the Berlitz Language Institute.

Being open to new approaches in teaching English to Speakers of Other Languages can enhance the effectiveness of teachers and promote language acquisition and learning. This does not mean that traditional approaches have no validity, nor does it suggest that "out with the old and in with the new" is necessarily a formula for success. Rather than

discard certain approaches, it would be better to analyze which approach works best to achieve particular learning outcomes.

### Linear Versus Multifaceted Delivery Systems

The focal point for analysis is on the delivery of instruction. Many teachers might argue that change is not necessary, based on the old proverb, "If it ain't broke, don't fix it." From the teacher's perspective the CBET/ESL classroom may not be broken, but from the standpoint of students who are struggling to get entry-level jobs or advance in existing positions, a different story emerges. These adult CBET/ESL students are motivated to learn, but are not taught what is necessary to survive and progress in the real world. The classroom ESL experience deals with textbook families and communication scenarios that do not resemble their personal or work experiences. Limiting the instruction of ESL only to a selected ESL textbook or ESL language series without any possible deviation is one problem.

The other part of the problem is the selective and exclusive adherence to the linear teaching approach. A strictly linear approach to teaching denotes a one or two-directional flow of information between the teacher and the students that does not promote divergence from the course to

explore and discover new or alternate pathways. In a one-directional, linear course, the information flows from the teacher, as the message sender, to the student, the message receiver. In contrast, in a two-directional, linear course, the receivers echo or repeat the message back to the teacher, the original sender. Whether it is one-directional or two-directional, the messages bounce back and forth in a predictable manner.

Encouraging students to make connections outside the realm of predictable exchange and to branch out in multiple directions takes the learner into the realm of unpredictability, away from the linear mode. To enable this journey, students require creative freedom, liberty to be imaginative, and autonomy of thought. Such a rethinking adds a multifaceted scope to existing traditional methodology. It also requires awareness training for teachers and an encouragement to reflect and analyze traditional perceptions and attitudes.

Traditionally, a linear teaching pathway exists between the teacher and the student. Teachers have the mind-set to provide the plans and goals for the students. Evaluating the effectiveness of a teacher who has been teaching in a linear fashion will not necessarily show any negative results. The teacher will, certainly, meet the standards of

accountability because they, too, are predetermined by a linear perspective. However, when the effectiveness of language acquisition and learning are the outcomes for which teachers are accountable, then the existing program falls short of meeting the criteria of communicative competence in real-life situations, social and cultural skill development, and language facility in the workplace. Life is multifaceted and complex; simplification of the instructional delivery system cannot prepare students successfully to meet real-life challenges.

Meeting the expectations of the curriculum and fulfilling the needs of the students require a multi-faceted approach and the willingness of teachers to accept a broader spectrum of accountability. Teachers who adhere strictly to a behaviorist approach meet accountability when measured by the standards established by a behaviorist view of learning. Staying with such a method does not allow branching out. If the same or better results can be achieved starting from a different premise, a premise that includes the goal of language acquisition and language learning, as well as social, vocational, and cultural readiness, the criteria of accountability for teachers change as well.

When learning flows only from the teacher to the student, there is only one right way. The teacher is the

provider of knowledge, and the students passively perform tasks that will aid them in their information storage capacity. When the minds of the students are not engaged, they cannot be expected to activate, retrieve, and manipulate the language skills necessary for independent, active communication to take place. If the existing frame of reference undergoes a change from linear learning to a multi-faceted environment, the standards for teacher accountability must change accordingly.

When behaviorist methods are insufficient to produce the desired language acquisition and learning outcomes, then other learning perspectives, such as constructivist and cognitive approaches, should be used. Within the complex learning environment created by use of the latter two approaches, the student becomes empowered as an active contributor to his or her own learning process.

#### The Role of the Teacher

Within a multifaceted learning environment, teachers have to facilitate the acquisition of language, knowledge, and skills through methodologies that address the varied learning styles of students. The role of the teacher requires flexibility and willingness to change with the needs of students without losing sight of required standards. This adaptation requires rethinking and

retraining for teachers who are willing to accept that there is no ultimate, unique, or predetermined role for the teacher.

Such teaching requires a professional self-confidence that welcomes open-ended and unpredictable outcomes. Teachers must relinquish absolute control in favor of student-initiated planning and organization. The use of constructivism encourages students to debate and reflect on various viewpoints; at the same time it creates a dynamic learning environment that requires constant restructuring. As long as the role of teachers adhered to a single mold, teaching was uncomplicated. However, in constructivism, the teacher as facilitator now takes on multiple roles, no longer easily replicable. This evolutionary role requires a versatile, yet comprehensible toolkit of constructive strategies.

#### The Learning Environment

The learning environment must also promote a positive self-image on the part of students. This allows the student to flourish within an ambience that features cultural sharing and crosscultural discovery. The integration of cultural discussion and discovery into the CBET/ESL classroom will promote a heightened awareness of each

person's role within the learning community and provide the incentive for continued learning.

Verbal and non-verbal communication can have a strong impact on CBET/ESL students. A one-directional model of communication serving only to support the messages of the sender fails to meet the criteria for effective interpersonal and intercultural communication. To properly "communicate," or "com" "munere" meaning "to be with a person," requires a fundamental awareness of the power of perception, interpretation, body language, and preconceptions (Ashcroft, lecture, 2001). Based on the "crude law of relationships," if teacher-communication skills are ineffective, teachers stand to lose more than just the physical disappearance of students; they stand to lose a transient opportunity for cultural and intercultural exchange (Johnson, 2000, p. 20). Johnson (2000, p. 20) suggested that the "crude law of relationships" consists of "[p]ositive perceptions of and feelings toward another person [that] are hard to acquire but easy to lose; negative perceptions of and feelings toward another person are easy to acquire and hard to lose. It takes many positive interactions to build a strong relationship..." According to the proverb, "One never has a second chance to make a first impression," students who leave a classroom due to one

incidence of intercultural miscommunication on the part of the teacher, will leave with an impression that is lasting and irrevocable.

A foundation of trust must be developed and maintained in the CBET/ESL classroom. Destroyers of trust, through communicating value judgments, cultural bias, and stereotyping, can create immediate barriers to effective communication within the classroom. Using effective communication in the CBET/ESL classroom establishes the basis for trust and reciprocal respect.

#### A Student-centered Approach

A student-centered approach provides an open forum for students to contribute valuable insights regarding their real-life experiences and identify what they would like to learn. The CBET/ESL teacher faces such challenges as cultural diversity, age variance, socio-economic differences, educational disparities, and multiple levels of English-language proficiency. Students attend the classes for a great variety of reasons, such as to obtain entry-level job positions, to advance job communication skills, to enhance advancement opportunities, or to be able to do homework with their children. Properly conducted assessments can help to determine language-skill levels and solve some issues of placement; but interpersonal communication,



including the communication of concern for each student, will enable the facilitator to determine the learners' needs that may not initially be evident.

### Purpose of the Project

The purpose of the project is more fully to address the needs of the adult learners. The adult learner referred to in this project comes from two distinguishable groups. One group of adult learners consists of the ESL students who attend adult school or community-based English programs. The other group of adult learners consists of the teachers within adult education ESL programs who themselves are students as they participate in professional development workshops.

For the ESL student, the CBET/ESL programs must provide the opportunity for English-language acquisition and learning with results that are applicable to the real world. Programs focus on the English-language learner in four major roles: a lifelong learner, a productive member of the community, a contributing family member, and a productive worker.

The focus of the adult learner in the ESL classroom is to facilitate effective ESL acquisition and learning. Teachers of English to speakers of other languages should

have professional development opportunities that parallel the instructional-delivery system the teacher will then apply in the CBET/ESL classroom to ensure their ESL learners' success.

The primary goal of this project is to provide a professional development workshop model and two instructional plans that incorporate elements of constructivism and adult learning theory.

#### Framework for Change

The constructivist and cognitive approaches to learning included in this project provide the framework for positive changes in the CBET/ESL program. The teaching practices and concepts inherent in these learning approaches can facilitate a broader scope for instructional activities, provide a foundation for teacher in-service training, support the integration of intercultural exploration, allow for implementation of multi-faceted instruction, integrate real-life applicability, and employ student-centered approaches. The complexity of the learning environment must reflect the complexity of society and prepare adult learners to use their English-language-communication skills in the development of their knowledge, skills, and aptitudes. Without empowering the CBET/ESL students to make decisions and face problems independently or through group

collaboration, the CBET/ESL program can easily fail to meet the expressed needs of these students.

### The Key to Transformation

One of the original National Education Goals, defined in 1994, is dedicated to "teacher education and professional development" (Dilworth & Imig, 1995, p. 1). "The goal suggests that practicing teachers are the key to the transformation of schools and that in order for teachers to lead the reform efforts, they need to be offered expanded and enriched professional-development experiences" (Dilworth & Imig, 1995, p. 1). This restructuring is expected to revitalize education and provide teachers with a strong foundation and supporting infrastructure. Many teachers who have received teaching certificates through reputable teacher-training institutions now find that their skills are often inadequate to meet the needs of the adult learners and insufficient to handle the integration of technology into instruction. After attending traditional workshops, teachers are expected to apply what they have learned, although "little evidence of use could be found even a few months after the program's conclusion" (Sparks & Hirsch, 1997, p. 63). Sparks & Hirsch (1997) also pointed out that:

Critics have long argued that this, 'sit and get' form of staff development, in which educators are

passive recipients of received wisdom from an 'expert,' has produced little lasting change in the classroom. (p. 52)

Teachers must have the opportunity to practice the skills learned at professional-development workshops in order to implement what they have learned.

### Content of the Project

The content of this project explores the constructivist-learning environment, adult-learning theory, and professional development as it applies to Teachers of English to Speakers of Other Languages (TESOL). A theoretical framework depicts the constructivist structure of the English-as-a-second-language (ESL) learning environment as it parallels the structure of effective professional-development workshops based on the same constructivist elements. The project also provides a professional-development workshop that incorporates adult-learning theory and features elements of constructivism. The professional-development workshop is designed within the constructivist framework to enable teachers to recreate a constructivist-learning environment based on their professional training and learning experience.

Chapter One describes the background of the project, the purpose, and its significance. Chapter Two investigates six major concepts: the constructivist-learning environment, adult-learning theory, the affective, conative, and cognitive domains, professional-development concepts and models, computer-enhanced constructivism, and web-based training. Chapter Three contains a model that depicts the main components of a constructivist-learning environment for the adult ESL learner and for the professional development of the ESL facilitator. In this chapter, the theoretical framework for the model is explained by incorporating constructivist elements and adult-learning theory explored in the previous chapter. Chapter Four introduces the curriculum design for the professional-development workshop and two instructional plans based on the model presented in Chapter Three. To conclude the project, the professional-development workshop and the instructional plans are provided in the Appendices.

The professional-development workshop entitled "Applying Semiotic Techniques for ESL" appears in Appendix A. Appendix B contains an instructional plan entitled "My Personal Portfolio" which focuses on metacognition. Finally, the instructional plan in Appendix C, entitled "Cultural Elements," applies critical thinking techniques.

## Significance of the Project

The significance of the project is to provide a professional-development workshop and two instructional plans founded upon adult learning theory and incorporating the elements of constructivism.

The professional-development workshop is intended as a model to encourage participating teachers to experience constructivist-learning elements, so they, in turn, become facilitators of effective English-as-a-second-language acquisition and learning. The workshop is built upon the framework of adult-learning theory and is constructed to encourage teachers to actively participate in constructing knowledge, directing their own learning outcome, taking ownership of the learning experience, and applying what is learned in their own classrooms.

The two instructional plans are founded upon adult learning theory, create a constructivist-learning environment, and incorporate higher-order thinking skills and metacognition.

## CHAPTER TWO

### LITERATURE REVIEW

#### Introduction

Chapter Two consists of a survey of relevant literature that can inform the theoretical foundation of designing professional development for the CBET/ESL teacher and creating a constructivist-learning environment for the adult learner. Specifically, it includes an investigation of constructivism, adult-learning theory, the psychological domains (affective, conative, and cognitive), professional development, computer-enhanced constructivism, and web-based training.

#### The Constructivist-learning Environment

Creating a classroom environment where students are encouraged to engage in "meaning making," a term coined by Jerome Bruner in 1990, is central to the idea of a constructivist-learning environment (CLE). Within this environment, students are encouraged to apply their knowledge, skills, and attitudes to "construct... understandings of the world" and "search for tools to help [them] understand [their] experiences" (Brooks & Brooks, 1999, p. 4). The tools that will "invite students to

experience the world's richness, empower them to ask their own questions and seek their own answers, and challenge them to understand the world's complexities" are technology and the application of language (Brooks & Brooks, 1999, p. 5).

By introducing technology into the classroom, a CLE emerges through the integration of computer applications and World Wide Web resources to promote the acquisition of English-as-a-second-language (ESL). "Technology that is fitted to curriculum and instruction can stimulate the development of higher-order thinking and problem-solving skills, and it can support collaborative, globalized learning" (Reed & McNergney, 2000, p. 1).

By using English within the CLE, the English learner relies on second-language skills to interpret, analyze, reflect, clarify, and develop meaning and understanding of the complexities related to the CLE and the real world. "The constructivist view ... is that language learners should develop their understanding of the conventions of language use by engaging in the kinds of language activity found in real life" (Abdullah, 1998, p. 1).

The shift in thinking about a CLE provides "a more holistic approach to language education that moves beyond learning forms of the language to attaining communicative competency and developing cross-cultural insights and



strategies for effective communication with other peoples" (Pusack & Otto, 1997, p. 5). These three educational forces, the CLE, instructional technology, and ESL, interacting upon and with each other, reinforce the need for a paradigm shift.

### The Paradigm Shift Towards Constructivism

Whether education is currently undergoing, or has completed a "paradigm shift," is debatable. Kuhn first used the term "paradigm shift" in 1962 to explain the process of changing perspectives when change occurs in accepted perception and ways of thinking (Kuhn, 1962). A paradigm shift occurs when a person can no longer verify new knowledge based on established rules and concepts (Brooks & Brooks, 1999).

By 1993, Cooper already saw the shift as a "fait accompli" when he claimed "there has been a paradigm shift in designed instruction; from behaviorism to cognitivism and now to constructivism" (quoted in Applefield, Huber, & Moallem, p. 2). Applefield et al. (2000/2001) acknowledged as well that the paradigm shift has occurred and "constructivist views on learning have captured the current *zeitgeist* in today's educational arena" (p. 2).

The epistemology of constructivism provides an insight into the acquisition of knowledge. Constructivism is a

"learning or meaning-making theory that offers an explanation of the nature of knowledge and how humans learn" (Abdal-Haqq, 1998, p. 1). "The origin of the term can be traced to John Dewey and progressive educators, to Piaget and Vygotsky and Jerome Bruner and discovery learning" (Applefield et al., 2000/2001, p. 2).

Constructivism fosters an active learning process on the part of the students, rather than transferring learning units from the teacher to the students, as delineated in behaviorist theory. The fundamental elements of constructivism stem from John Dewey, who proposed a "curriculum based on student interests and designed to teach the social origins of knowledge and cooperation" (Spring, 2000, p. 254).

Constructing knowledge is generally accepted as a student-centered approach because "[d]ialogue is the catalyst for knowledge acquisition" and "[u]nderstanding is facilitated by exchanges that occur through social interaction, through questioning and explaining, challenging and offering timely support and feedback" (Applefield, et al., 2000/2001, p. 4).

This insight into how students participate in learning and create meaning exemplifies a shift from a teacher-centered approach in a classroom environment based on

behaviorism to a student-centered approach based on constructivism.

### Challenges of Rapid Change

Although scholars have known about constructivist theory for the last 20 years, and research studies continue to advance knowledge about constructivism applied to second-language acquisition (SLA), the implementation of the theory in the ESL classroom faces some challenges. As Brooks & Brooks (1999) pointed out, "some teachers resist constructivist pedagogy" because of their "commitment to their present instructional approach, concern about student learning, or concern about classroom control" (p. 101).

Research studies have added to knowledge connecting SLA and technology, but in general, such knowledge is advancing so rapidly that it is becoming harder to stay on the cutting edge of advancements in this area. What is up to date today may become obsolete tomorrow; therefore, a degree of flexibility has to be built into the learning environment in order to keep pace with rapid change.

Alfred North Whitehead developed the concept of a "time span of social change" (Knowles, 1980, p. 41). Describing Whitehead's concept of the relationship of the time-span of social change compared to the lifespan of an individual, Knowles (1980) claimed that "it is no longer functional to

define education as a process of transmitting what is known; it must now be defined as a lifelong process of continuing inquiry" (p. 41). He added that "in the twentieth century several cultural revolutions have already occurred and the pace is accelerating. Under this new condition, knowledge gained at any point of time is largely obsolete within a matter of years" (Knowles, 1980, p. 41).

Equally, the time span necessary to go from educational theory to educational application in the classroom is a long and undetermined process. Teachers do not readily acknowledge the need for change. They often hesitate to change methods they have used for years, although these methods could be changed to be more effective.

Many teachers might agree that change is necessary, but without the skills to initiate change it is natural that many will also be reluctant to implement change in their classrooms. Because the constructivist-learning environment features the teacher in a facilitative role, it seems logical that professional-development facilitators should be the first to implement changes in the delivery system of the traditional professional-development workshops. If the presenters of these workshops do not act as role models, it will be all the more difficult to expect changes to be

adopted by teachers who may not have the motivation to do so.

### Authenticity

Authenticity, a prominent component of constructivist theory, is also incorporated into second-language acquisition (SLA) where the "language learners should develop their understanding of the conventions of language use by engaging in the kinds of language activity found in real life, and not by learning lists of rules" (Abdullah, 1998, p. 1). "In constructing discourse, second-language learners use four kinds of knowledge: knowledge about the second language, competence in their native language, ability to use the functions of language, and their general world knowledge" (Díaz-Rico & Weed, 2002, p. 18). A CLE assists in creating relevancy between the classroom and the real world by adhering to authenticity.

A truly constructivist SLA environment, in order to stay faithful to the concept that each individual student is constructing knowledge, must encourage reflection beyond the confines of the classroom culture or ethnic cultures represented by the students and teacher within that classroom. The CLE must provide adult learners with access to the global sociocultural environment in order to promote

thinking in nonlinear, non-traditional terms. Based on constructivist foundational principles, programs should be . . . global, complex, and sustained, rather than [consist of] clearly defined tasks and subtasks, neatly broken up into lessons and modules ... [and] placed within a full and authentic context rather than fragmented tasks and predetermined instructional sequences. (Herrington & Standen, 2000, p. 4)

#### Differences of Roles

The role of constructivism is to facilitate learning for the individual. For ESL learners, this includes providing them with the language skills to operate in the world outside of the classroom, e.g. their community and workplace. Students have responsibility and control over their own learning. This approach is especially suitable for adult learners: "Concurring with constructivist learning theory we found that older learners respond best when students and teachers share equal responsibility in the learning process and share equal respect for one another" (Spigner-Littles & Anderson, 1999, p. 3). The learning that takes place in the classroom should have a connection to what the adult learner faces in real life and enable the

learner to complete the tasks required in a real world environment (Grabe & Grabe, 2001).

We have consistently found that older learners thrive when classroom activities are structured to (1) help them develop new skills; (2) challenge their pre-conceived notions, attitudes, and beliefs; (3) help revise their world views; and (4) encourage and promote self-regulation in the learning process. (Spigner-Littles & Anderson, 1999, p. 3)

The Role of the Teacher. The CLE fundamentally changes the role of the teacher and the student. The teacher facilitates student learning by empowering the student to plan, monitor, and evaluate learning, thereby helping the student to "think of the steps involved in the learning tasks" (Díaz-Rico & Weed, 2002, p. 126). The shift is from a teacher-centered environment to a student-centered environment that "makes the student more central to the overall process" (Spigner-Littles & Anderson, 1999, p. 2).

The teacher is not the only supplier of knowledge, limiting perceptions in a classroom of 20 or more active minds to only one prescriptive mind. Knowledge is not transmitted on a continuum that is one-directional without the possibility of linking to other conceptual coordinates.

The teacher is also not required to have the only correct answer. Furthermore, the teacher is not the primary source for predetermined answers to an examination; instead, students choose their own sources and pursue their own answers; and tests consist of open-ended questions that allow a variety of approaches to dealing with issues. There are as many different ways of doing things, of thinking about things, or of implementing things as there are minds able to conceive of the ways.

The Role of the Student. Unlike in the behaviorist classroom environment, the student in a CLE plays an active role. Rather than responding to external stimuli, students are engaged in creating knowledge, utilizing skills, and formulating new insights (Duffy & Jonassen, 1992). The CLE has the potential of being a healthy and productive environment for ESL students whose main goal is to acquire language skills and knowledge. Students are stimulated to use their innate desire to inquire, explore, and discover. CLE language-learning strategies serve to promote each student's ability to develop knowledge on their own while engaging in "decentration, the cognitive acknowledgement that one's own view is not the only one nor necessarily the "correct" one, but is one of many" (Brooks & Brooks, 1999, p. 58).



The acquisition of knowledge within an ESL CLE is achieved through engaging the learner to speak English in order to develop meaning through discourse, rather than through imitation or repetition commonly used in the behaviorist approach (Kroll & LaBoskey, 1996). In the behaviorist classroom, ESL language instruction depends upon the teacher's giving a structured and linear presentation of the language; students then practice these forms. Language in a CLE does not entail learning lists of vocabulary, nor does it propose the repetition of teacher-generated language.

Mirel (1998) outlined aspects of a CLE with which students are confronted. First, students must adapt to open-endedness, options, variances, and multiple answers, because problems can be solved in more than one way. Second, goals are "uncertain or undetermined ... [and] goals [are] emerging and changing" (p. 6). Third, learning is not restricted to a step-by-step process presented in traditional, linear fashion; learning is also achieved through recursive thinking and the interdependency of thoughts. Fourth, according to Mirel (1998), the "choosing between options based on circumstantial issues, not causal or conditional rules" provides a different perspective on how to approach learning (p. 7). Fifth, varying contexts and conditions are

elements that require attention. Finally, revision and restructuring are common and considered to be powerful learning strategies.

In creating a CLE there are many elements of instruction that must be addressed. The CLE must provide resources for ESL learners, opportunities to explore the target language and culture, and the tools to create presentations in order to use the language. In the traditional learning environment learners "were cast in the role of 'consumers' of aural input" (Chiquito, Meskill, & Renjilian-Burgy, 1997, p. 49), but today's focus takes the student "away from static instructional content on computer screens to a more flexible, open-ended environment in which tools are becoming the metaphor for instructional technology" (Chiquito et al., 1997, p. 49).

#### Psychological and Sociological Constructivism

Two branches of constructivism originate from the fields of psychology and sociology. The branch known as psychological constructivism derives from the work done by Piaget, who wanted to foster the cognitive development of the individual. The strategy of this approach is to create a dilemma between preexisting knowledge and new exposure to knowledge. Through questioning and reflection, students are

encouraged to discover knowledge and think about complex issues (Richardson, 1997).

Some scholars feel that psychological constructivism neglects to look at learning in a social context. Vygotskian constructivism provides a platform that includes the individual within the social context. Culture plays an important role for the group, as well as for the individual. This approach acknowledges a correlation between each individual and the sociocultural environment (Richardson, 1997).

#### Technological Constructivism

Technological constructivism is a term used in the field of instructional technology; it refers to the integration of the tools of technology within a classroom to easily accommodate the learner's needs for developing language proficiency and enabling acquisition and learning. CLEs "are technology-based environments in which students can do something meaningful and useful. The technologies afford students the tools to explore, experiment, construct, converse, and reflect on what they are doing, so that they learn from their experiences" (Jonassen, Peck, & Wilson, 1999, p. 194).

Technological Basis. Implementation of the following eight key elements can establish a technology-based CLE in

an ESL classroom. First, it is necessary to work from a prior knowledge base. Duffy and Jonassen (1992) stated that the formation of new understandings should not depend upon knowledge retrieval; instead, it should derive from a flexible knowledge construction that adapts to the situation.

Second, all ideas, beliefs, attitudes, and concepts must be encouraged even though innovation and varying perspectives may "engender contradictions to their initial hypotheses" or cause a feeling of imbalance between prior knowledge and newly acquired knowledge (Brooks & Brooks, 1999, p. 112). The challenges confronting students, such as cognitive conflict or disequilibrium (terms derived from Piagetian theory), may lead to errors in the language learning and acquisition process; however, "students' errors should be viewed positively as opportunities ... to explore conceptual understanding (Applefield, et al., 2000/2001, p. 18). "Resolving dissonance ensures some ownership of the ideas and the problems on the part of the learner" (Jonassen et al., 1999, p. 5).

Third, the element of collaborative learning is essential for students to feel that they are part of a discourse community investigating the potential of technology. In a technology-integrated classroom this might

translate into a teacher's providing opportunities for students to use the language in a dynamic way to interact using technology such as Computer-mediated Communication (CMC) (Beauvois, 1997).

Fourth, constructivism requires "learners to articulate what they are doing, the decisions they make, the strategies they use, and the answers that they found" (Jonassen et al., 1999, p. 9). Teachers "seek elaboration of students' initial responses ... [and] encourage student inquiry by asking thoughtful, open-ended questions and encouraging students to ask questions of each other" (Brooks & Brooks, 1999, pp. 110-111).

Fifth, teachers use "raw data and primary sources, along with manipulative, interactive, and physical materials" and thereby "accept student autonomy and initiative" (Brooks & Brooks, 1999, pp. 103-104). Abdullah (1998) proposed that constructivist approaches "require learners to explore resources other than the teacher, including reference materials and community members, and to draw on knowledge from various subject areas such as mathematics, geography, and science" (p. 2). To stimulate natural curiosity and elicit higher-level thinking skills, the teacher engages in "[f]raming tasks around cognitive activities such as analysis, interpretation, and prediction"

to foster mental connections (Brooks & Brooks, 1999, p. 105).

Sixth, critical-thinking skills and other higher-order thinking skills are an essential part of the environment. To evoke the use of these skills, teachers relinquish control to the students to "allow student responses to drive lessons, shift instructional strategies, and alter content" (Brooks & Brooks, 1999, p. 105) and foster "personal interpretation of ... experiences" (Jonassen et al., 1999, p. 4). Students may use technology tools; but, ultimately, they create knowledge through the metacognitive skills (planning, monitoring, and evaluation) (Díaz-Rico & Weed, 2002).

Seventh, the technological CLE can "selectively improve upon the familiar classroom setting by ... offering new settings for the negotiation of meaning, and enhancing naturalistic experiences" (Pusack & Otto, 1997, p. 14). This concept incorporates experiential learning and self-directed learning.

The final element consists of creating a realm where authenticity, relevance, real-world situations, and complexity are acceptable and guaranteed. The knowledge that is provided step-by-step in the traditional classroom does not prepare students for its application in the real world

and "the greatest intellectual sin that educators commit is to oversimplify ideas in order to transmit them more easily" (Jonassen et al., 1999, p. 9). Furthermore, Abdullah (1998) believed that learning should "reflect the complexity of real-world problems (as opposed to short-answer, true-false, and multiple-choice questions)" (p. 2). Because access to the World Wide Web can provide access to real-world authenticity, "it is not surprising that the language of constructivism permeates the technology literature" (Reed & McNergney, 2000, p. 1).

Conceptual Model. Jonassen et al. (1999, p. 195) developed the Conceptual Model of Learning Environments that consists of the following elements (see Table 1).

The problem or project space recognizes that each field has its own unique problems to solve. Rather than prescribe problems in textbooks, a student will be more likely to take ownership of a problem and be motivated to solve it, if the problem has some relevance to the student's life, experience, and interest (Jonassen et al., 1999).

Developing understanding requires having prior knowledge that, in turn, derives from experience. Enabling students to access related cases that explain a problem provides the experience needed to solve complex issues. These sources "support learning in at least two ways--by

scaffolding memory and by representing complexity" (Jonassen et al., 1999, p. 198).

Table 1. Conceptual Model of Learning Environments

Element	Description
Problem or project space	Ill-defined; ill-structured; engaging problems; relevant
Set of related cases to explain the problem	Multiple perspectives and abundant experiences foster memory
Information resources support investigation of the problem	Text, multimedia, hypermedia
Cognitive tools	Provide real-world, complexity supported by scaffolding and using mental models
Conversation and collaboration tools	Dialogue and learning communities foster problem solving and understanding
Social & contextual support	Adequate equipment, effective environment, skilled facilitator

Source: Jonassen, Peck, & Wilson, 1999, pp. 194-201.



Information resources offer students the tools to create their own meaning. These resources should be easily accessible and relevant to what the student is investigating. Jonassen et al. (1999) suggested that hypermedia is the best "information bank," one that "may include text documents, graphics, sound resources, video, animations, or any other medium of information that is appropriate for helping learners understand the content well enough to be able to use it to solve problems" (p. 199).

Cognitive or knowledge-construction tools support the learner during the process of solving complex, real-world problems when the necessary skills to perform are lacking. Jonassen et al. (1999) referred to these supporting or scaffolding tools as mind-tools.

Conversation or knowledge-negotiation tools support student conversation and collaboration. By establishing a "community of learners," students work through problems as a team and strive to reach a consensus, ultimately leading to the solution of the problem. Tools that serve to assist students in building a community and maintaining interaction within the group are: "computer conferencing, chats, UseNet groups, MUDs [multi-user domains], and MOOs [object-oriented MUDs]," as well as electronic mail, local or wide area networks, bulletin boards, threaded and synchronous

discussions, web casts, streaming media, and workspaces (Jonassen et al., 1999, p. 200).

The last element of the model, the social and contextual support, is the weakest component of a CLE. "In designing CLEs, accommodating social, contextual, and environmental factors is essential" (Jonassen et al., 1999, p. 201). It is essential for the hardware and software to support the ESL environment; and paramount that teachers not only learn computer skills, but also be able to discern how to effectively use technology to effectively promote and support English language learning and acquisition (Jonassen et al., 1999).

Technology Enhancement. Some of the tools of technology that would enhance ESL learning within a CLE include the following: simulations, online portfolios, web experiences, webquests, student authoring, and student presentations. Student work product takes on different forms, such as "video, software, CD-ROMs, web sites, e-mail, on-line learning management systems, computer simulations, streamed discussions, data files, databases, audio, and more" (Reed & McNergney, 2000, p. 2).

One of the most important distinctions in evaluating digital content is whether a product emphasizes open-ended exploration or drill-and-

practice. Many experts, particularly those who support a constructivist approach to teaching, strongly prefer the former. (Zehr, 1999, p. 28)

The World Wide Web (WWW), as an example, provides constructivist tools, such as hypertext, resources, experts, multimedia, and interaction (Starr, 1997).

ESL teachers must be able to evaluate the effectiveness of technology for second-language acquisition (SLA) and its abilities to foster a CLE; that is, the technological tool must stimulate language use and language production. Effective application of technology within a CLE that benefits ESL engages the learners in the process of discovering language and encourages language output based on the natural need to share exploration and knowledge in the classroom community.

Providing teachers with the latest technology, even with the latest training in multi- or hypermedia, will not ensure that ESL instructors can effectively integrate the technology, create a CLE, and foster effective ESL acquisition. "The old approach of after-school technology training sessions does not work. Such sessions demonstrated the features of software applications but rarely showed how to use them in the classroom" (McKenzie, 1999). "At its worst, staff development asks teachers to implement poorly

understood innovations with little support and assistance; and before they are able to approach mastery, the school has moved on to another area" (Sparks & Hirsh, 1997, p. 13).

Learning Environment Myths. Advocates of a technology-based CLE within the realm of language acquisition must provide arguments to disperse myths associated with the approach to learning. Following are five myths recognized by Applefield et al., 2001). Several scholars offer counter rationales that weaken the belief in such myths.

Myth One is that there is no focus for learning and no clear goal in constructivist-based instruction. The counterargument is that knowledge cannot be planned in the traditional systematic way. "In the constructivist approach, teachers look not for what students can repeat, but for what they can generate, demonstrate, and exhibit" (Brooks & Brooks, 1999, p. 16).

The argument behind Myth Two is that constructivist-based instruction lacks planning, and careful preparation is less important than in traditional instruction. On the contrary, "in a constructivist-learning environment, clear educational goals are established, authentic tasks and real-world, case-based experiences and contexts (rather than pre-determined instructional sequences) are carefully designed and sufficient verbal interaction between the teacher and

students and among students is ensured" (Applefield et al., 2001, p. 14).

Some educators contend that there is an absence of structure for learning in a CLE, thereby, creating Myth Three. However, the counterargument emphasizes that focus and direction are elements of a CLE provided through student exploration and discovery. Learning evolves dynamically as a result of student directed input into the learning process. The structure is evolutionary; it is not a static plan provided by the teacher before the learning process ever begins. "Students initiate this process to make sense of the information; they construct the process and the understanding rather than having it done for them" (Brooks & Brooks, 1999, p. 47).

Myth Four proffers the argument that students are already involved in classroom discussions and other forms of social interaction; therefore, learning will take place without a dramatic shift in instructional approach. The constructivist counterargument is that a discussion without a purpose or direction is simply time-consuming and unproductive, or serves a social purpose that is not the orientation of active learning in the classroom. Teachers do have a significant role to keep learning on track through monitoring and redirecting students (Applefield et al.,

2001). "When designing curriculum, constructivist teachers organize information situations because students are most engaged when problems and ideas are presented holistically rather than in separate, isolated parts" (Brooks & Brooks, 1999, p. 46).

The last myth, one that evokes strong opposition to constructivism, stems from a misunderstanding of relevancy. The argument is that because teachers are not primarily engaged in delivering instruction (lecturing and explaining), their role in the classroom is less important. However, the teacher's role continues to be relevant in the learning process; in fact, the need for continued growth and professionalism is inherent in the constructivist approach. In a CLE, the teacher's "focus is on guiding rather than telling" Applefield et al., 2001, p. 15). "A constructivist framework challenges teachers to create environments in which they and their students are encouraged to think and explore" (Brooks & Brooks, 1999, p. 30).

The role of the teacher is more difficult and more important, but no longer takes center stage in the classroom environment. Students have the responsibility of directing their learning process and have the power to make decisions regarding that direction. Teachers who feel that they give up being the central focus for the students (when providing

lectures or explanations) are more accurately struggling with issues of control than relevancy (Jonassen et al., 1999).

### Summary

To meet the needs of the English-as-a-second-language learner, the educational resources, learning environment, teachers, technology, and administration should work together as a holistic system, rather than fragmented sources. "To meet the educational challenges of the 21<sup>st</sup> century, everyone who affects student learning must continuously upgrade his or her skills" (Sparks & Hirsh, 1997, p. 16). Further research must be conducted to examine how technology can optimize language learning and acquisition and how teachers can effectively integrate technology into the classroom to promote learning. Technology can provide the informational resources and tools to help the teacher bring the real world into the classroom. "By posing language learners problems like those found in real life, teachers can bridge the gap between language use in the real world and what Dyson calls the 'fake' world of school" (Abdullah, 1998, p. 1).

Abdullah (1998) offered a comprehensive summary of the language benefits made possible through technology integration and the CLE:

During the inquiry process that learners go through to develop solutions, they need to use language to obtain and communicate information, express opinions, and negotiate, as they would in occupational domains. AS they document discussions and decisions, consult reference materials, talk to others, or represent findings, they learn to listen, speak, read, and write effectively. They develop vocabulary, learn rules of grammar and conventions of social language use, and integrate the use of different sign systems. In short, they construct an understanding of language as it is used in real-world contexts. (p. 2)

#### Adult Learning Theory

There has been an ongoing debate since the early nineteenth century regarding the definition of the term "andragogy" and the validity of its use when referring to adult-learning theory. Many scholars in the adult-education field liberally use the term "andragogy"; on the other hand, valid critics of the term question its "empirical soundness and epistemological validity" (Brookfield, 1989, p. 201). Without doubt, the work of Malcolm Knowles, often referred to as the father of andragogy, has contributed to advancing



the research in adult learning (Jarvis, 1987, p. 169). The "debates within the field of study of adult education ... have resulted in an enriched academic understanding of the process of the education of adults" (Jarvis, 1987, p. 185). "Malcolm Knowles's formulation of andragogy was the first major attempt in the West to construct a comprehensive theory of adult education" (Jarvis, 1987, p. 185).

#### The Difference Between Education and Learning

In order to gain a better understanding of adult-learning theory, it is beneficial to extract meaning from the individual lexical components: learning, education, adults and adulthood, theory, and andragogy.

Learning is a component of the larger educational system. "A learning society and lifelong learning are considered essential parts of global educational systems" (Spring, 2000, p. 19). According to John Dewey (Ornstein & Levine, 2000), education "is that reconstruction or reorganization of experience which adds to the meaning of experience, and which increases ability to direct the course of subsequent experiences" (p. 122). Knowles (1998, p. 10) defined education as an "activity undertaken or initiated by one or more agents that is designed to effect changes in the knowledge, skill, and attitudes of individuals, groups, or communities."

Rogers (1986) stated, "education is an artificial creation, unlike the natural learning processes" (p. 9). Whereas education is planned, learning is seen as a lifelong process that requires the flexibility of the learner to adapt to changes that "call for new knowledge, new skills and new attitudes at various stages" (Rogers, 1986, p. 9). Knowles (1998) cited the definition of learning as "the act or process by which behavioral change, knowledge, skills, and attitudes are acquired" (p. 11). Because of the multiplicity of uses associated with the term "learning" and because of the changes inherent in the learning process, a precise definition is difficult to formulate. Knowles (1998) contended the following:

Clearly, these learning theorists (and most of their precursors and many of their contemporaries) see learning as a process by which behavior is changed, shaped, or controlled. Other theorists prefer to define learning in terms of growth, development of competencies, and fulfillment of potential. (p. 13)

Through Knowles' investigations into andragogy, teachers gain valuable insights, as they are able to profile their students and adapt instruction to adult-learning

needs. Adult-learning theory provides the framework for an effective and productive ESL learning experience.

### Observations on Adult Learning

Using the word "adult" in conjunction with education requires further analysis. Rogers (1986) made a distinction between "the education of adults" and "adult education" (p. 16): "Thus, it is suggested, 'the education of adults' covers all programmes for adults, while 'adult education' is confined to 'adult' subjects" (Rogers, 1986, p. 17).

Boucouvalas & Krupp (1989) used the term "development" cautiously and recognized the concept of "change." In reference to adult learning they contributed the following observation:

The terms adult and adulthood form a pivotal axis upon which adult education revolves as a field of both study and practice. Concerted study of adulthood, however, as a distinct period of life, has evolved only within recent decades. Emergence of this field was preceded by studies of the development of children, adolescents, and senior citizens, but adult development is now established as a field in its own right. (p. 183)

## Andragogy

Knowles (1998) proposed that a "theory is a comprehensive, coherent, and internally consistent system of ideas about a set of phenomena." (p. 10) Theories can derive from philosophies or from practice; they are "specific to schooling, curriculum, teaching, and learning" (Ornstein & Levine, 2000, p. 403).

As early as 1949, attempts were made to develop a coherent theory on adult learning. "But these turned out to be more descriptive listings of concepts and principles than comprehensive, coherent, and integrated theoretical frameworks. What was needed was an integrative and differentiating concept" (Knowles, 1990, p. 51). This concept has been evolving in Europe since the early nineteenth century and continues to be a favorite topic in the adult-education field.

Alexander Kapp first used the term "andragogik" in 1833 to describe Plato's theory on education as pedagogy for the individual, as well as for the state (Reischmann, 2000). The Greek word "anēr" (whose stem is "andr") means "man", and the word "agogus" means "leader of" (Knowles, 1990, p. 54).

Ger van Enckevort, a Dutch educator traced the origins of the term and documented its usage over the years in a 1971 publication. He found that Johan Friedrich Herbart, a

German philosopher, opposed the use of the term, but in 1921, Eugen Rosenstock, a German social scientist and faculty member at the Academy of Labor in Frankfurt, Germany, revived the term in a report to the Academy. He expressed that "it is not enough to translate the insights of education theory [or pedagogy] to the situation of adults...the teachers should be professionals who could cooperate with the pupils; only such a teacher can be, in contrast to a "pedagogue," and "andragogue" (Knowles, 1990, p. 52).

Heinrich Hanselmann, a Swiss psychiatrist, used the term in 1951 in a book that "dealt with the nonmedical treatment or reeducation of adults" (Knowles, 1990, p. 52). The use of the term spread across German-speaking countries and to Yugoslavia. Franz Poggeler, author of Introduction of Andragogy: Basic Issues in Adult Education, used the term in his book in 1957 (Knowles, 1990, p. 52).

Andragogy found widespread acceptance in Yugoslavia through the publications and presentations of "leading...adult educators, including Samolovcev, Filipovič, and Savicevič," as well as Ogrizovič (Knowles, 1990, p. 52). The Dutch continued to support andragogy and offered a doctorate at the University of Amsterdam.

In the current [current refers to the time of this 1990 publication] Dutch literature a distinction is made among "andragogy," which is any intentional and professionally guided activity that aims at a change in adult persons; "andragogics," which is the scientific study of both andragogy and andragogics. (Knowles, 1990, p. 53)

Other countries also have supporters of andragogy. These include "France (Bertrand Schwartz), England (J.A. Simpson), Venezuela (Felix Adam), and Canada (a Bachelor of Andragogy degree program was established at Concordia University in Montreal in 1973)" (Knowles, 1990, p. 53).

Andragogical Model. Knowles et al. (1998) defined andragogy as "the art and science of helping adults learn" (p. 61). They tried to "formulate a theory of adult learning that takes into account what we know from experience and research about the unique characteristics of adult learners" (Knowles et al., 1990, p. 54). Their andragogical model is based on six assumptions that represent unique aspects about how adults learn.

The first assumption of the andragogical model is the need for adults to understand the reason for learning something. Learning must be relevant and be applicable to

their lives. Once a reason has been established, adults want to be able to apply what they learn immediately.

The second assumption leads to a clarification that the adult self-concept is self-directive. "They resent and resist situations in which they feel others are imposing their will on them" (Knowles, 1990, p. 58).

The fact that adults have accumulated vast and varied experiences that deserve respect is observed in the third assumption. Effective facilitators will recognize that the "difference in quantity and quality of experience has several consequences for adult education" (Knowles, 1990, p. 59). Therefore, adult learning is activated best through "experiential techniques--techniques that tap into the experience of the learners, such as group discussion, simulation exercises, problem-solving activities, case method, and laboratory methods--over transmittal techniques" (Knowles, 1990, p. 59).

A fourth assumption delineates the "importance of timing learning experiences to coincide with ... developmental tasks" (Knowles, 1990, p. 60). This coincides, in particular, with the developmental stages associated with language that include "preproduction, early production, speech emergence, and intermediate fluency" (Díaz-Rico & Weed, 2002, p. 38).

The adult orientation to learning is reflected in the fifth assumption that "adults are life-centered (or task-centered or problem-centered) in their orientation to learning" (Knowles, 1990, p. 61). Adults learn "new knowledge, understandings, skills, values, and attitudes, most effectively when they are presented in the context of application to real-life situations" (Knowles, 1990, p. 61).

Whereas adults experience external motivators to learn, such as job advancement, altering professions, increased salary, or better quality of life, the sixth assumption is oriented to a greater extent on internal motivators. The desire for self-fulfillment or self-actualization is strong once external barriers such as "negative self-concept, inaccessibility of opportunities or resources, time constraints, and programs that violate principles of adult learning" can be overcome (Knowles, 1990, p. 63). In 1984, Knowles acknowledged the following:

The andragogical model is a system of elements that can be adopted or adapted in whole or in part. It is not an ideology that must be applied totally and without modification. In fact an essential feature of andragogy is flexibility. (p. 418)



Comparison of Andragogical and Pedagogical Models. In the first 1970 edition of his book, The Modern Practice of Adult Education: Andragogy Versus Pedagogy, Knowles perceived the andragogical model to be the antithesis of a pedagogical model (see Tables 2 through 5). In this case the Greek word "paid" means "child" and pedagogy refers to "the art and science of teaching children" (Knowles et al., 1998, p. 61). These strict lines of distinction between the two models are not valid today due to cross applications of the models in various child- or adult-learning situations.

Table 2. Comparison of Andragogical and Pedagogical Assumptions: Concept of the Learner

Andragogical	Pedagogical
A normal aspect of the process of maturation to move from dependency toward self-directedness, but at different rates for different people and in different dimensions of life. Teachers have responsibility to encourage and nurture this.	The role of the learner is ... a dependent one. The teacher is expected ... to take full responsibility for determining what is to be learned, when it is to be learned, how it is to be learned, and if it has been learned.

Source: Knowles, 1980, p. 43.

Table 3. Comparison of Andragogical and Pedagogical Assumptions: Role of the Learners' Experience

Andragogical	Pedagogical
The experience learners bring to a learning situation is of little worth.	As people grow and develop they accumulate an increasing reservoir of experience that becomes an increasingly rich resource for learning.

Source: Knowles, 1980, p. 43.

Table 4. Comparison of Andragogical and Pedagogical Assumptions: Readiness to Learn

Andragogical	Pedagogical
Most people of the same age are ready to learn the same things. Therefore, learning should be organized into a fairly standardized curriculum, with a uniform step-by-step progression for all learners.	People become ready to learn something when they experience a need to learn it in order to cope more satisfyingly with real-life tasks and problems.

Source: Knowles, 1980, p. 43.

Table 5. Comparison of Andragogical and Pedagogical Assumptions: Orientation to Learn

Andragogical	Pedagogical
Learners see education as a process of acquiring subject matter content, most of which they understand will be useful only at a later time in life.	Learners see education as a process of developing increased competence to achieve their full potential in life.

Source: Knowles, 198, p. 43.

Knowles, Holton III, and Swanson (1998) offered a logical explanation about how one's point of view (based on the assumptions one prefers to adopt) will ultimately influence one's preference of a pedagogical versus an andragogical model. They pointed out:

. . . there is one big difference between how an ideological pedagogue and an andragog would [use the models]. The pedagogue, perceiving the pedagogical assumptions to be the only realistic assumptions, will insist that the learners remain dependent on the teacher. On the other hand, the andragog, perceiving that movement toward the andragogical

assumptions is a desirable goal, will do everything possible to help the learners take increasing responsibility for their own learning.

(p. 70)

Some of the most salient concepts of andragogy are described below in Table 6.

Table 6. Applicable Andragogical Concepts

[Creating] a climate in which the learners feel more respected, trusted, unthreatened, and cared about.
Exposing [learners] to the need to know before instructing them.
Giving [learners] some responsibility in choosing methods and resources.
Involving [learners] in sharing responsibility for evaluating their learning.

Source: Knowles, 1980, pp. 194-201.

The Role of the Teacher. Referring to the andragogical model, Knowles (1980), stated the following:

[I]t requires a drastic redefinition of the role of the teacher in the learning-teaching relationship. Under this theory, teachers can no longer see their role as being primarily that of transmitters of knowledge, attitudes, and skills. Their role is now defined as facilitators and resources in the process of self-directed inquiry by the learners. But this new role is one that few of the people available to adult-education institutions as potential teachers have been exposed to. Most people recruited to teach adults, whether from educational institutions or their field of practice, would (if left on their own) teach as they were taught - according to principles and practices of pedagogy. (p. 156)

The role of the teacher in the adult-learning environment parallels the role of the facilitator in the constructivist-learning environment (CLE). Within the CLE the teacher and student explore learning together and share in the discovery process. The teacher provides access to resources and encourages the active participation of all students. "Andragogical theory prescribes a process of self-evaluation, in which the teacher devotes energy to helping the adults get evidence for themselves about the progress

they are making toward their educational goals" (Knowles, 1980, p. 49). The teacher encourages metacognitive engagement by the students that fosters their participation in "planning, monitoring, and evaluating" (Díaz-Rico & Weed, 2002, p. 126). "In Andragogy, therefore, great emphasis is placed on the involvement of adult learners in a process of self-diagnosis of needs for learning" (Knowles, 1980, p. 47). This parallels the need of teachers, who are also adult learners, to self-diagnose what they need in order to benefit their students and require professional development workshops to meet these needs. Adult education "assumes the equality of teachers and learners and the interchangeability of teaching and learning roles" (Brookfield, 1989, p. 201).

Adult learning continues to foster the concept of teacher as facilitator. This role requires a flexibility of the teacher to be spontaneous, relinquish control, and risk departing from a predetermined script. "Recent research on self-directed learning reminds us that learners regard much of their most useful learning as serendipitous and unplanned-learning in which they take advantage of chance events as they occur (Brookfield, 1989, p. 203).

### Summary

With the need for adults to adapt to changes and to survive the demands of the workplace, English-as-a-second-

language (ESL) educators will "be in great demand to meet the needs of public and private institutions and agencies that provide services to limited-English-proficiency adults in the local community" (Orem, 1989, p. 499). Adult ESL education is emerging as a prominent field and "several important agencies and organizations have been established in whole or in part to service the needs of adult ESL teachers" (Orem, 1989, p. 498).

Orem also stated that "there will be a shortage of qualified ESL teachers, ... a greater focus on teacher training, especially in-service training, because of high numbers of inexperienced teachers entering the field." (p. 499) Furthermore, "[t]echnology, including computer assisted instruction, should continue to occupy a more prominent position in classroom instruction" (Orem, 1989, p. 499).

The debate regarding the validity and preferred usage of andragogy versus adult learning continues. Furthermore, "[a]dult educators have long argued about whether adult education is a true profession or discipline" (Courtney, 1989, p. 19). Courtney (1989) contended:

A core body of scientifically based knowledge [it]would lead eventually to the recognition of adult education as a university discipline through a process that would also include other conditions

important to this end - the existence of broad, persuasive theories and a cadre of researchers collectively investigating the same set of theoretical problems. (p. 19)

While researchers are still searching for a theory that is unique to adult education, the ongoing research has spawned other related research, such as the unique aspect of self-directedness in adults and the importance of contextualized learning (Deshler & Hagan, 1989, p. 155).

The tenets of constructivism are applicable to adult learning and support the assumptions about adult learners. The old adage, "adults vote with their feet" should be a principle concern for all educators in the field of adult education. As Rogers (1989) pointed out:

The adults did not have to be there: if the class was disagreeable, they could simply stop coming. In teaching [adults], the customer, not the subject, comes first and is always right, and the customer is the learner. (p. 3)

#### Professional Development Concepts and Models

Anticipating that teachers would play a powerful role in creating a new generation of global thinkers, the focus in the 1990s was the preparation of teachers for the 21<sup>st</sup>



century. To participate successfully in the global environment and economy requires global literacy. English is an international language, as well as a dominant language in the world of educational computing. After years of preparing for the anticipated shift towards global thinking, many teachers in adult-education facilities have less than sufficient professional preparedness as teachers of English to speakers of other languages (TESOL). Educators are conducting class by applying the "fish bowl" mind-set where the outreach of learning is limited to the boundaries of the classroom (Yoshida, 2001/2002).

Ineffective methodology that uses textbooks as the sole resource and disregards opportunities for student interaction hardly suffices for students' in-class survival, let alone provides the survival skills necessary to compete in a global economy. That would require verbal and written communicative proficiency in English that also includes a competency in technology. Both aspects, English-as-a-second-language and technology skills, are required to be part of the communication and information age.

Díaz-Rico & Weed (2002) commented on the impact of demographic changes in a global environment:

In the changing demographics in the United States, two minority groups--immigrants and economically

disadvantaged minorities within the country--face similar challenges. Both immigrants and indigenous minorities must adjust to the demands of modern technological societies. (p. 224)

The contribution a teacher makes toward the success of ESL students has far-reaching effects for the students personally and for the global environment. Such powerful responsibility necessitates a proactive participation of teachers in their own professional development.

Riel and Becker (2000) emphasized the idea of "teacher mentoring [as] a school reform strategy that recognizes and rewards the talent and expertise of master teachers" (p. 3). The authors suggested that based on a motivational spirit of working with mutual support and respect, a "school culture of collaboration" would engage teachers in technology exploration and research (Riel & Becker, 2000, p. 3).

In the classroom, technology, computers, and access to resources on the World Wide Web continue to be disengaged aspects, rather than integrated tools. Whereas computer equipment may often be readily available and accessible, the "training teachers do receive is usually too little, too basic, and too generic to help them develop real facility in teaching with technology" (Professional Development, 2002, p. 41).

Statistics provided by Market Data Retrieval (2000) revealed, "in the 1999-2000 school year, 17 percent of public school technology spending went to teacher training" (Professional Development, 2002, p. 41). This would seem sufficient, but five years earlier, in 1995, the Office of Technology Assessment recommended that, "schools and districts devote at least 30 percent of technology budgets to teacher training and support" (Professional Development, 2002, p. 41). Today, the National Education Association (NEA) "recommends that schools devote 40 percent of their technology budgets to teacher training" (Professional Development, 2002, p. 41). The American Association of State Colleges and Universities expressed the need for "teacher-scholars" who would have "a knowledge of methods instruction, human development, learning theories, affective skills, and, of course, subject matter" (Spring, 2000, p. 41).

The following section presents specific professional development models which are best understood by first exploring various concepts and models.

### Terminology

There are minor differences in what is the "appropriate" terminology pertaining to the teaching of teachers. The terms, "training," "staff development," and

"professional development," are not interchangeable. In a discussion sponsored by the California Education Policy Seminar (1997), a convincing argument encourages the use of "professional development" in reference to the integration of technology. The report clarifies "that training teaches people how to operate the technology, whereas professional development teaches people to take the knowledge of how to use the technology, consider the materials in the lesson and determine how the technology can be used to improve the lesson" (California Education Policy Seminar, 1997, p. 13).

#### Challenges to Professional Development

Teachers in adult-education programs face some unique challenges. Full-time positions are rare and, therefore, the majority of teachers do not receive "benefits, ... job stability, better program resources, and more opportunities for professional development" (Crandall, 1994, p. 1). Many adult-education teachers feel that because of their part-time status, they do not have the same opportunities as K-12 teachers to be a part of ongoing staff-development programs that would benefit their professional growth.

Professional Workshops and Conferences. Attendance at workshops, such as the ones offered by Teachers of English to Speakers of Other Languages (TESOL) or the Computer-Aided Language Learning and Instruction Consortium (CALICO), is

usually voluntary and at the teacher's own expense (Kutner, 1992).

In an article written for the California Association of Teachers of English to Speakers of Other Languages (CATESOL) journal, Pash and Mullane (2000) stated that "attending workshops and giving presentations at conferences also helped us keep abreast of current methodology and theory and provided us with opportunities to be seen as leaders in our field" (p. 189).

In workshops, an educator, traditionally, learns about "educational foundations, ... educational psychology, human development, and theories of learning"; furthermore, training is provided in methodology and teaching strategies (Spring, 2000, p. 41). Such training is seldom offered specifically at the job site. The alternative is to attend off-site professional development or seek out online sources for self-directed development.

Job-embedded Learning. Job-embedded professional development serves the immediate needs of the teacher who is also the first person to understand the needs of his or her students. Kutner (1992) proposed, "the challenge for the adult education field is to design an effective system of staff development within the constraints of the ABE [Adult Basic Education] and ESL [English as a Second Language]

delivery system" (p. 1). Job-embedded learning activities for teachers can provide such a delivery system "based on the assumption that the most powerful learning is that which occurs in response to challenges currently being faced by the learner and that allows for immediate application, experimentation, and adaptation on the job" (Sparks & Hirsh, 1997, p. 52).

When a teacher experiences these immediate challenges and has already begun to mentally scan options and possible solutions, it is the time when learning opportunities (tools and resources) will stimulate learning through personal challenge. Having ownership of a problem stimulates far more motivation to overcome the challenge than accepting a pre-packaged educational development challenge that is unrelated to a teacher's area of expertise and unrelated to the needs of the students.

Key Elements. In 1991, the Study of ABE/ESL Instructor Training Approaches, funded by the U.S. Department of Education, identified a number of key elements of effective staff development through a review of research literature and site visits to nine staff-development programs (Kutner, 1992). The elements were classified into three main categories of concern: the ownership of the training, the instructional design, and the concerns of teachers.

The idea of developing ownership in the training stemmed from the recognition that teachers need "to feel they are key players in their own professional development" (Kutner, 1992, p. 2).

The second category, instructional design, revealed the necessity to link theory and research to a practical application of teaching and provide teachers with demonstrations and consistent feedback.

The third category, concerns of the teacher, created awareness about the benefits of recognizing the needs of teachers. Promoting a feeling of involvement among teachers decentralizes the staff development and "promotes local camaraderie by providing adult educators the opportunity to receive training with others who are in close proximity and with whom they can share ideas and materials" (Kutner, 2001, p. 3).

### Three Models Significant to Technology-enhanced Language Learning

Concepts and models for effective staff development that are an integral part of the current discussion on integrating technology in the classroom have been in existence for years. Crandall (1994) proposed three models of training teachers to use technology effectively: the

mentoring model, the theory-to-practice model, and the reflective-teaching model (Crandall, 1994, p. 2).

The Mentoring Model. Also referred to as the craft model, the mentoring model "relies on the knowledge of an experienced practitioner to mentor less experienced practitioners" (Crandall, 1994, p. 2). With the term of "mentor" also comes the perception that the practitioner knows more than the teacher participants. When it comes to "training" teachers to use the computer as a tool, this terminology does not appear controversial. However, the contrasting idea that teacher participants should become self-directed in the process of using and applying technology in their lesson plans means that the "mentor" is more appropriately a "facilitator."

The Theory to Practice Model. Otherwise known as the applied-science model, the theory-to-practice model "links relevant research with teaching practice" (Crandall, 1994, p. 2). Because it is difficult to transition from what was taught in a professional development workshop to practical implementation of the new understandings, this model would incorporate experiential learning into the professional-development workshops (Crandall, 1994).

Reflective Teaching Model. Finally, the reflective-teaching model, also known as the inquiry model, "is an



exciting approach in which teachers become active researchers--reading about, sharing, observing, critically analyzing, and reflecting upon their own practice in order to improve it" (Crandall, 1994, p. 3). This model is excellent for web-based training where teachers would take control of their own research, have the opportunity to reflect on issues, and engage in critical analysis of their findings.

#### Learning Formats for Professional Development

Once teachers have been motivated, "administrators should provide ongoing staff-development programs that have specified outcomes" (California Department of Education, 1993, p. 10). Teachers must, therefore, "be offered expanded and enriched professional development experiences" to be able to apply technology skills in the classroom, to integrate the skills into existing academic content area, and to come up with innovative uses for technology within their field of expertise (Dilworth, 1995, p. 1). It hardly seems reasonable to expect earth-shattering results from a one- or two-day workshop held sporadically. If learning is a process, then teachers must also have the opportunity to take ownership of this process. When teachers are "allowed to try out new techniques in ... relative freedom," they are more apt to enjoy experimenting with ideas as "their own"

(Doff, 1988, p. 9). Furthermore, the experiential-learning process is highly individualized and is not be neatly packaged into pre-formatted or uniform timeframes. Even the process of reflection requires teachers "to engage in a continuous cycle of self-observation and self-evaluation in order to understand their own actions and the reactions they prompt in themselves and in learners" (Florez, 2001, p. 1).

#### Sources of Professional Development

The Adult Education Office of the California Department of Education funds the Outreach and Technical Assistance Network (OTAN). This provides "teaching resources such as free instructional software, lesson plans, Web site links and reviews, and a photo bank; communication resources such as listservs, chat areas, and communication software; technical support such as tips for using hardware, and instructions on downloading plug-ins and utilities..."(OTAN, 2002). The OTAN resources for grants, codes and regulations, legislative information, presentations and products, and its library of documents are available online at <http://www.otan.us>. A related site that is specifically oriented and "designed to meet the needs of adult-education instructors who want to integrate technology into their classrooms" is located at <http://www.adultedteachers.org>. OTAN also offers on-site or off-site workshops that are

designed to help educators use computer resources and develop basic computer literacy (OTAN, 2002).

The resources are extensive, accurate, and of high quality. For teachers who have the ability to work independently, these resources are valuable and functional. Although customized professional development would be ideal, it is not possible for external professional-development trainers to be familiar with the demographics of each school, the skills and expertise of each teacher, the needs of the students at a particular adult-school site, and the specific subject for which the skills are intended.

There is a variety of other professional-development programs and techniques available online. Bintrim (2002) provided a following list of professional organizations that provide teachers with valuable (p. 1-2) (see Table 7).

### Summary

The abundance of resources available to teachers does not guarantee that the resources will be applied appropriately or effectively. Facilitators of professional development workshops have intentions of meeting participants' needs.

They are successful in helping teachers develop computer skills, understand the potential of Internet resources, and reflect on the benefits of technology.

Table 7. Professional Development Sources

<p>Educational Resources Information Center (ERIC)</p> <p><a href="http://www.aacte.org/Eric/pro_dev_schools.htm">http://www.aacte.org/Eric/pro_dev_schools.htm</a></p>
<p>National Council for Accreditation of Teacher Education</p> <p><a href="http://www.ncate.org">http://www.ncate.org</a></p>
<p>Alberta Teacher's Association</p> <p><a href="http://www.teachers.ab.ca">http://www.teachers.ab.ca</a></p>
<p>National School Reform Faculty</p> <p><a href="http://www.Harmonyschool.org">http://www.Harmonyschool.org</a></p>
<p>Coalition of Essential Schools</p> <p><a href="http://www.Essentialschools.org">http://www.Essentialschools.org</a></p>
<p>National Staff Development Council</p> <p><a href="http://www.nsdcc.org">http://www.nsdcc.org</a></p>
<p>North Central Regional Educational Lab (NCREL)</p> <p><a href="http://www.Ncrel.org">http://www.Ncrel.org</a></p>
<p>Education Week</p> <p><a href="http://www.Edweek.org">http://www.Edweek.org</a></p>

Source: Bintrim, 2002, p. 96.

The transition, however, from gathering information and developing personal technology skills to facilitating

students to do the same requires a "qualitative jump" of the acquired knowledge and skills into effective methodology, appropriate for the subject and the students.

The best translator of these skills is the facilitator who knows the needs of the students and is able to design and develop performance-based lessons that incorporate knowledge and skills toward effective English-language learning in a technological and global environment. Thus, it is teachers who should determine the course of their own professional development.

Teachers are problem solvers who strive to provide the best opportunities for their students. Providing these opportunities will require the development of innovative lessons. Given the time to invest in the design and development of educational materials for their own classes, teachers are more apt to feel honored, respected, and acknowledged. These factors are powerful motivators for teachers to take on self-directed challenges for the benefit of their students.

According to Sparks and Hirsch (1997), professional-development reform is necessary if:

. . . schools are to adequately prepare students for life in a world that is becoming increasingly complex. Staff development is at the center of all

education reform strategies--without it, such strategies [including strategies in English-as-a-second-language and technology] are merely good ideas that cannot find expression. (p. 96)

The global environment is connected and dependent on the information superhighway, and the vehicles on this superhighway are fueled by digital technology. English learners are anxious to learn to drive and maneuver on the information superhighway; teachers, equally challenged, provide the fuel to make the student's journey a successful one.

#### Affective, Conative, and Cognitive Domain

The domains important to the adult learner are: the Affective Domain, the Conative Domain, and the Cognitive Domain. These domains represent the psychological realm within an individual where knowledge is constructed. The balanced integration of all three domains facilitates the construction of knowledge. A CLE must incorporate all three domains with equality and balance. The neglect or exclusion of one domain, or the preference of one domain over another, automatically weakens the overall learning outcome. It also jeopardizes student motivation and student retention, leading to a failure of constructivist ESL acquisition and

learning. In order to successfully facilitate the construction of knowledge (language acquisition and learning, social and cultural competence), all three domains continually interact and complement each other in a supportive and positive manner. The domains cannot be perceived as segregated entities. The domains, which emulate life as a total experience with all of its complexity, must be understood properly and implemented appropriately. The effective learning outcome, through simultaneous positive contributions in all three domains, achieves student self-esteem, motivation, positive attitudes, and successful learning.

### The Affective Domain

The Affective Domain is an area of learning that directs the emotions, feelings, and attitudes of the student. According to Huit (1999), it is the "emotional interpretation of perceptions, information, and knowledge. The domain is generally associated with one's attachment (positive or negative) to people, objects, ideas, and concepts. It asks the question "How do I feel about this knowledge or information?" (p. 1).

The learner develops into a self-motivated and self-directed learner, if the learning environment is free of affective barriers, such as anxiety, stress, fear, and low

self-esteem. The facilitator promotes positive emotions by providing learning experiences that elicit positive emotional responses. Wlodkowski (1985) determined that there are four aspects of emotional responses in adult learners.

- Emotions resulting from the learner's mood
- The teacher's influence
- Learner reaction to learning & associated materials
- Learner response to the learning group

The most prominent of the four aspects is the facilitator's influence upon which all of the remaining affective aspects are founded. The foundation determined by the facilitator must elicit positive feelings, attitudes, and emotions among the learners. The result of activating the positive senses is student motivation. The contrasting, negative influences, such as a threatening and volatile environment, perceptions of rejection, discrediting of character, or feelings of helplessness and isolation, result in a lack of student motivation. Negativity causes students to give up, feel anxious, and become doubtful about their potential to succeed.

### The Conative Domain

The Conative Domain is identified as the place in the mind where a person determines wants, expectations, and



desires. The resulting will power and persistence to reach a goal, therefore, hinge upon the success of the mind to persist in attaining goals. Kolbe (1990) suggested that there are four conative action modes, which she has copy written under the name Kolbe Concepts. They are: Fact Finder Action Mode, Follow Thru Action Mode, Quick Start Action Mode, and Implementor Action Mode.

Kolbe (1990) delineated three categories of willfulness to succeed in each of the action modes. These drives, categorized as "will," "willing to," and "won't," represent the variety of mindful commitment of an individual to an action. The results of a "will" action is initiating a plan and insisting upon solutions. The result of a "willing to" action is to respond and accommodate. A "won't" action prevents and resists. All modes represent how different people approach objectives in different ways that cannot be predetermined. A CLE makes allowances for these variations in approach and accommodates the individual's preferences of conative actions.

The Fact Finder (FF) Action Mode "is based on the instinctive need to probe" and "is most oriented to activities that encompass defining, calculating, formalizing, and researching" (<http://www.kolbe.com>) (see Table 8).

Table 8. Fact Finder Action Mode

An Insistent FF will:	An Accommodating FF is willing to:	A Preventative FF won't:
Collect data	Review the data	Need documentation
Define terms	Use terms properly	Need be appropriate
Establish priorities	Work within the priorities	Offer Justification
Determine appropriateness	Respond appropriately	Tradition tied
Seek specificity	Give specifics	Get bogged down in minutiae
Provide historical evidence	Review historical evidence	Over-analyze
Quantify & rank order	Accept ranking order	Need ongoing evaluation
Create analogies	Test analogies	Need comparisons
Assess probabilities	Go with the highest probability	Choose the obvious solution
Put in writing	Review written material	Require written proof

Source: Kolbe, 1990, Online at <http://www.kolbe.com>

The Follow Thru (FT) Action Mode that "is based on the instinctive need to pattern" and "is most oriented to such acts as arranging, coordinating, integrating, and implementing" (<http://www.kolbe.com>) (see Table 9).

Kolbe (1999) continued with the Quick Start (QS) Action Mode as "based on the instinctive need to innovate" (<http://www.kolbe.com>). The "quick start drive is most oriented to activities that involve brainstorming, intuiting, inventing, and risk taking" (see Table 10).

Finally, Kolbe (1999) depicts the Implementor Action (IP) Mode "based on the instinctive need to demonstrate" and the drive is directed toward "building, crafting, forming, and repairing" (<http://www.kolbe.com>) (see Table 11).

All of these instinctive drives can be worked on in a CLE and directed toward creating learning opportunities that require proactive decisions and applications by the student. Instinct can be regarded as a natural resource with potentially great uses, but without the activation of instinctive actions, students will never become self-motivated and self-directed learners.

It is the experience of positive emotions about learning accomplishments and the sensations of learning as a success that leads to more and more active use of instinctive action modes that, in turn, lead to more

Table 9. Follow Thru Action Mode

An Insistent FT will:	An Accommodating FT is willing to:	A Preventative FT won't:
Seek order	Maintain order	Be rigid
Work sequentially	Stay in sequence	Repeat patterns
Design systems	Work within system	Stay boxed in
Require focus	Concentration	Go through motions
Establish procedures	Follow procedures	Get stuck in routines
Force closure	Complete when necessary	Need a picture
Provide charts	Fill in charts	Function by rote
Classify by category	Maintain classifications	Act sequentially
Arrange logistics	Adhere to plan	
Diagram possibilities	Utilize diagrams	

Source: Kolbe, 1990, Online at <http://www.kolbe.com>

Table 10. Quick Start Action Mode

An Insistent QS will:	An Accommodating QS is willing to:	A Preventative QS won't:
Take risks	Go along w/ risks	Go off half-cocked
Generate metaphors	Use metaphors	Distract
Promote experimentation	Participate in experimentation	Be impulsive
Defy the odds	Overcome the odds	Need deadlines
Seek challenges	Provide challenges	Be ambiguous
Originate options	Interject spontaneously	Go against odds
Discover alternatives	Try alternatives	Try to do too many things
Ad lib	Follow another's hunch	Take the bait when challenged
Create innovation	Assist innovation	Create chaos
Act on instinct	Go along with changes	Force change and disruption

Source: Kolbe, 1990, Online at <http://www.kolbe.com>

Table 11. Implementor Action Mode

An Insistent IP will:	An Accommodating IP is willing to:	A Preventative IP won't:
Create tangibles	Work with tangibles	Require concrete
Provide physical protection	Utilize protective gear	Object to abstractions
Build hand- crafted models	Use models	Need to demonstrate
Master mechanical devices	Use mechanical devices	Rely on spatial relationships
Develop prototypes	Envision concrete examples	Have to see a prototype
Demonstrate relationships	Respond to space requirements	Require top-grade tools
Handle packaging and transporting	Provide transportation	Rely on equipment
Elect the right tools & equipment	Use tools & equipment	Have to build to last
Tactilely detect solutions	Incorporate tactile clues	Force tangible solutions
Seek quality materials	Recognize quality materials	Demand quality materials

Source: Kolbe, 1990, Online at <http://www.kolbe.com>

motivation and will power to continue the ever strengthening milieu of an effective CLE. The positive sensations in the Affective Domain feed into the success of the Conative Domain to influence the action modes and direct the "will," "willing to," over the "preventative" drive.

### The Cognitive Domain

Traditionally, the cognitive domain signifies the place in an individual's mind to which knowledge is transferred and information is processed. From a constructivist perspective, however, the cognitive domain is where the "learner is building an internal representation of knowledge, a personal interpretation of experience" and "learning is an active process in which meaning is developed on the basis of experience" (Duffy & Jonassen, 1992, p. 21). In a CLE, the learner engages in negotiating real-world problems and challenges without predetermined solutions. The emphasis for the learner is on creating meaning through reflection, analysis, observation (semiotics), and experience in order to make appropriate decisions, negotiate difficulties, and find multiple solutions.

Duffy & Jonassen (1992) proposed that to maintain the connectivity to the real world and respect the importance of relevancy in adult learning, the learning experience must be contextual and the learning tasks authentic. For the learner

to explore multiple perspectives and multiple possibilities, higher-order thinking skills must be developed in this domain. Higher-order thinking skills, such as critical thinking, decision-making, meaning making, problem-posing and problem-solving must be developed in a CLE.

### Summary

All three psychological domains, when balanced and acknowledged equally, will facilitate effective learning, encourage metacognitive applications, and foster the concept of lifelong learning.

### Computer-enhanced Constructivism in English-as-a-second-language Acquisition

With technology more widely available to ESL teachers, more training is required to provide the teachers not only with a level of proficiency to work with technology as a tool, but also with the applicable skills that will enable them to confidently integrate and utilize software applications toward effective language acquisition within the framework of the CLE. Merely supplying hardware and the basic skills toolkit does not automatically provide teachers with the instructional-technology skills to implement the available technology toward effective language acquisition and learning. Levy (1990) stated, "our language teaching



philosophy, method, or approach needs to be broadened to encompass new technologies, and the inter-relationship between language teaching and computing needs to be carefully explored" (p. 5).

#### What is Computer-enhanced Instruction?

Having the computer hardware available for ESL students will not automatically guarantee that they will know how to use the technology to obtain an optimum outcome, such as increased levels of ESL proficiency. Neither will it guarantee that teachers will provide effective computer-enhanced ESL instruction. The state-of-the-art technology is not sufficient, if educators do not reflect upon the potential of its application. Teachers must learn how this technology can be applied effectively, and they must have the skills necessary to fully utilize the technological potential beyond the level of basic computer skills.

Teachers who have received training only in the basic computer skills will limit the ESL student's potential to apply the computer as an enhancement tool in ESL language acquisition and learning. Research indicates that teachers with basic computer skills training primarily use tutorial and drill-and-practice software. Drill-and-practice software emulates the behavioral approach traditionally used by teachers. In this approach, the teacher produces the

language, makes the choices about the language, and controls the output of the language. The students imitate, repeat, and respond on cue.

The only difference in a computer-enhanced ESL learning model that parallels this methodology is the replacement of the teacher with a machine that can randomly, yet mechanically, cue students through the same "behavioral" prompts that have been found to be ineffective in the acquisition of language. Using a state-of-the-art computer will not change the outcome. This method reduces the use of technology to a novel delivery vehicle that replaces the delivery of the teacher.

On the other end of this spectrum are teachers who have received training in advanced computer-application skills. These teachers are able to provide ESL students with computer-enhanced language acquisition by engaging these students and by activating their higher-order thinking skills (HOTS). The original HOTS project was a pull-out program in which elementary-school children received extra training in critical thinking and problem solving by using software applications (Pogrow, 1996, pp. 34-35). Today the goal of instructional technology is to enable students to use HOTS integrated into available technologies.

The predominant use of drill-and-practice applications in the ESL classroom indicates that teacher-training workshops need to provide teachers with the skills to elicit HOTS from students in their ESL classroom. Merely integrating fundamental computer applications in the ESL classroom will not guarantee that effective language acquisition and learning will take place. Teachers must learn to apply advanced computer skills that engage learners in language acquisition and empower the ESL student to use higher intellectual skills.

Computer-enhanced ESL learning that promotes HOTS supports the development of a constructivist-learning environment (CLE). A great variety of options, including communication networks, simulations, hypermedia, multimedia, the Internet, the World Wide Web, and web-authoring programs require students to use HOTS. ESL learners must use HOTS in problem solving and critical thinking computer applications. Teachers who have not had the opportunity to properly train in the use of these computer-enhanced language applications will not only undergo a lateral shift from the traditional classroom to a technologically infused classroom, but also will emulate their existing teaching strategies and will use computer applications that are more inclined to support their existing teaching style.

For example, a teacher used to applying behavioral methodology in the classroom, a traditionally teacher-centered style, will be more inclined to use language tutorials, drill-and-practice software, or educational language games. These computer applications were designed and developed by programmers who emulated the behaviorist traditions in the classroom; therefore, the outcome of language acquisition and learning based on these applications is predictable based on SLA research. In contrast a teacher who is already committed to cognitive instruction will employ computer applications, such as simulations, presentations, or hypermedia, that require higher-order thinking skills.

#### Beyond Drill and Practice

Predetermined computer-language applications are substitutes for teacher-centered ESL classrooms where the teacher provides all of the information. Information flows from the teacher to the students, and the students drill, repeat, mimic, and memorize the material presented. Whether this happens by way of the teacher as the source (as in the traditional behaviorist classroom) or a computer as the source (as in the integrated technology classroom), language acquisition and learning is seldom effective. Jonassen, Campbell, and Davidson (1993, p. 13) stated that

instructional technologies should not "be used as delivery vehicles (such as in computer-assisted instruction, tutorials, drill-and-practice)... rather, technologies should be used as engagers and facilitators of thinking and knowledge construction."

Becoming proficient, then fluent, in the English language requires more than computer-aided language learning (CALL) tutorials or drills; it requires language to be constructed. This construction of the English language can only occur when using applications that are not predetermined and inflexible.

For language-acquisition to occur, adult learners must have access to computer applications that give them the opportunity to construct, to create, and to manipulate the language using a variety of tools. In Table 12, Jonassen et al. (1999) provide guidelines for educators to understand the role of technology in learning (pp. 13-14).

To achieve meaningful instruction and effective English-as-a-second-language learning and acquisition, it is essential that constructivist theory be translated into constructivist-learning and teaching practice that is inclusive of computer-enhanced English-as-a-second-language learning and language acquisition.

Table 12. Useful Roles for Technology in Learning

<p><u>Technology tools to support knowledge construction:</u></p> <ul style="list-style-type: none"><li>• Represent learner ideas, understandings, beliefs</li><li>• Produce organized, multimedia knowledge bases</li></ul> <p><u>Technology as information vehicles:</u></p> <ul style="list-style-type: none"><li>• Access needed information</li><li>• Compare perspectives, beliefs, world views</li></ul> <p><u>Technology as context to support learning-by-doing:</u></p> <ul style="list-style-type: none"><li>• Meaningful real-world problems and contexts</li><li>• Represent beliefs, perspectives, arguments</li><li>• Define a safe, controllable problem space</li></ul> <p><u>Technology as social medium to support learning:</u></p> <ul style="list-style-type: none"><li>• Collaborate with others</li><li>• Discuss, argue, and build consensus</li><li>• Support discourse, knowledge-building</li></ul> <p><u>Technology as intellectual partner (Jonassen, 1996):</u></p> <ul style="list-style-type: none"><li>• Help learners to articulate/represent</li><li>• Reflect on what &amp; how they have learned</li><li>• Support internal negotiations/meaning making</li><li>• Support mindful thinking</li></ul>
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Source: Jonassen et al., 1999, pp. 13-14.

Understanding that teachers must receive appropriate training to acquire the knowledge and skills that will help them provide effective and meaningful computer-enhanced ESL instruction will promote an upgrading of teacher training and in-service-training programs. In constructivist theory, "knowledge is constructed, not transmitted" (Jonassen et al., 1999, p. 3).

The concept of meaning making, developed by Jerome Bruner (1990), "is at the heart of a philosophy of learning called constructivism that is relatively new to the field of educational technology" (Jonassen, et. al., 1999, p. 2). Creating a classroom environment where students are encouraged to seek meaning for themselves is central to the idea of a constructivist-learning environment (CLE). With the integration of instructional technology, the CLE promotes ESL acquisition and learning.

#### Higher-order Thinking Skills and Mental Models

The traditional English-as-a-second-language (ESL) learning environment, infused with computer technology, need not change effective techniques in second-language acquisition (SLA). Egbert and Hanson-Smith (1999) had eight conditions for optimal ESL instruction (Egbert, Chao, & Hanson-Smith, 1999) (see Table 13).

Table 13. Eight Conditions for Optimal English  
Second-language Acquisition

1	Learners have opportunities to interact and negotiate meaning.
2	Learners interact in the target language with an authentic audience.
3	Learners are involved in authentic tasks.
4	Learners are exposed to and encouraged to produce varied and creative language.
5	Learners have enough time and feedback.
6	Learners are guided to attend mindfully to the learning process.
7	Learners work in an atmosphere with an ideal stress/anxiety level.
8	Learner autonomy is supported.

Source: Egbert, Chao, and Hanson-Smith, 1999.

These conditions can be met through the implementation of computer-enhanced ESL learning that supports higher-order thinking skills (HOTS). The goal of any ESL program, computer-integrated or not, should be to stimulate and



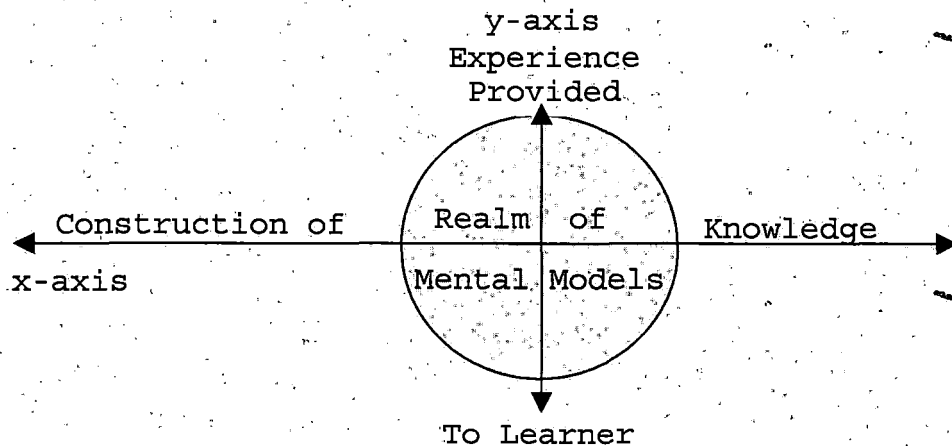
empower its students to take charge of their own language acquisition and learning. Whether this happens in an ESL classroom devoid of technology or in a computer-integrated ERSL environment, the format should not interfere with the "construction" of language and the discovery of knowledge.

The software best suited to provide optimum ESL acquisition and language learning consists of applications that provide the flexibility to work with the language, the ability to produce language, and the option to manipulate the language.

Instructional-design theorists also challenge existing assumptions and analyze the implications of the development of the second generation of instructional-design theory, referred to as ID<sub>2</sub> (Merrill, 1992). ID<sub>2</sub>, built upon a cognitive foundation (not behavioral), proposes that learning results from developing mental models (Merrill, Li, & Jones, 1990). The more complex the mental model, the more complex the activities that the student can tackle.

In the ID<sub>2</sub> (second generation instructional design) model, the x-axis represents the construction of knowledge and the y-axis represents the experience provided to the learner. The x-axis and the y-axis intersect and create a realm where the development of mental models occurs (see Figure 1). The realm of mental models grows in proportion to

the amount of experience and knowledge available from which to construct mental models.



Source: Merrill, Li, & Jones, 1990, p. 7-14.

Figure 1. Instructional Design

Many researchers write about constructivist-learning theories, but the issue of what exactly is constructivist pedagogy is still unclear. An additional difficulty lies in establishing a crossover and connection between computer science and the relatively new field of instructional technology. Professionals involved in both fields should consider the value of incorporating constructive teaching strategies into the design and development of ESL computer applications. Fosnot (1992) stated that the "constructivist approach to teaching will need to identify what

instructional strategies will facilitate concept instruction" (p. 169).

Researchers have found that there is a shift from the traditional, auditory, and teacher-centered instruction to a more visual, perhaps kinesthetic, student-centered environment. By using computers, Wodtke, who teaches visual thinking and design communication, said teachers have the advantage that they can interactively utilize the audio and visual, thereby opening up new possibilities in this medium (Wodtke, 1993). Wodtke suggested that there are three approaches to working with computer: 1) doing it, 2) knowing about it, and 3) visualizing it. The last approach coincides with the constructivist approach requiring students to develop concepts and utilizing thinking skills.

#### Computer-assisted Language Learning Framework

Martin Phillips, in an article written for the British Council's English Language Services Department, raised some interesting questions regarding the development of computer-aided language learning (CALL) and its adherence to sound pedagogical practices. The instructional materials created for CALL have been isolated programs that have not attempted to integrate the entire gamut of language-learning pedagogy. Programmers have been more focused on the development of technological possibilities and enamored with what the

computer can do, rather than develop programs based on effective second-language acquisition (SLA) data or Krashen's differentiation between language learning and language acquisition. Phillips proposed a framework for CALL that will help programmers develop software that is "pedagogically sound and will impart a coherence to CALL development which at present is conspicuous by its absence" (Phillips, 1985, p. 26).

Phillips identified "seven possible categories of analysis: activity type, learning style, learner focus, program focus, language difficulty, program difficulty, and classroom management" (Phillips, 1985, p. 27). Although he contended that it might not be possible to include all of these elements, he stressed that the framework will promote the development of more complete language programs founded upon SLA research. "Contemporary authoring systems are methodologically restrictive and inflexible;" however, the Integrated Software Production Environments of the future, ... will be much more sophisticated tools for the design and testing of innovative and imaginative programs" (Phillips, 1985, p. 113). He warned against attempting to evaluate CALL prematurely and prejudging its value.

## Summary

As the new field of English-language technology develops, it will explore methodologies and "accommodate the new technology within its theories of language teaching methodology. This will almost certainly require some rethinking of methodology" (Phillips, 1985, p. 114). Ultimately, professionals from the field of second-language acquisition (SLA) and the field of instructional technology (IT) must work together to create affective ESL acquisition materials.

Computers and powerful telecommunications technologies can and are being exploited to promote positive education reform: by creating student-centered instructional context that focus on building critical thinking skills; by presenting authentic, challenging tasks that engage students in meaningful learning experiences that are appropriate to individual students' level and needs; by facilitating collaborative learning activities that encourage all students to participate and contribute; and by linking students from different places and culture to enhance leaning and intercultural understanding. (Otto & Pusack, 1996, p. 181)

The key to the successful and effective use of computer-enhanced language learning is to engage students, to explore relevant issues, to encourage reflection, and to stimulate higher-order thinking skills. Jonassen, et al. (1999) offered a brief, yet powerful summary of what constitutes meaningful learning with technologies. They proposed the following:

- Knowledge construction, not reproduction
- Conversation, not reception
- Articulation, not repetition
- Collaboration, not competition
- Reflection, not prescription

Kassen and Higgins (1997) contended that to achieve meaningful learning, "preparing teachers to use educational technology is a pressing concern for educators today" (p. 280). They identified three key issues that concern educators:

- Establishing a comfort level with technology;
- Integrating technology into the curriculum; and
- Developing the critical skills to use technology effectively. (p. 280)

Aside from already implemented professional-development workshops, one effective means of enabling teachers to

develop the above listed skills is through web-based training.

### Web-based Training

Web-based training (WBT) also referred to as web-based education, combines instructional design, learning theory, and Internet technology. Conrad & TrainingLinks (2000) offered the following comprehensive definition:

Web-based training is the integration of instructional practices and Internet capabilities to direct a learner toward a specific level of proficiency in a specified competency. (Conrad & TrainingLinks, 2000, p. 11)

WBT is growing "at a rate of over 100% per year" according to International Data Corporation (IDC) (Horton, 2000, p.8). From 1994 to 1999, corporations spent \$600 million USD on online training (Barron & Rickelman, 1999).

WBT can be delivered asynchronously (time independent) or synchronously (time dependent). It can be non-facilitated (self-paced) or facilitated (guided learning). The "In Time On Time TESOL" teacher training/education site is non-facilitated, with asynchronous access for teachers any time they wish.

## The Roots of Web-based Training

WBT is a combination of three separate fields: distance learning (1840), computer-conveyed education (1960), and Internet technologies (1990). The roots of distance learning are founded in correspondence education that emerged in the United States and Europe (France, Germany, United Kingdom). The delivery system consisted primarily of off-campus lectures and mail correspondence. The first home-study program is traced back to the 1870s and began at the Illinois Wesleyan University. Ithaca, New York is credited with starting the first correspondence university in the United States in 1883. Much like today's computer-based distance learning programs, the International Correspondence School (ICS) also provided educational opportunities to people living in remote locations or who had work or family related time restraints (Horton, 2000, p. 3).

The development progressed through radio courses (1925), educational television (1940s), teleconferencing (1980s), satellite television (1980s and 1990s), to the latest WBT technology that, may or may not, use all of the prior options (Horton, 2000, p. 3). Distance learning has rapidly grown into a WBT industry that served 8,000 students in 1997 and 80,000 in 1998.



The origins of computer-conveyed education can be traced to the US military forces. During World War II a large number of young men had to be rapidly trained in the use of weaponry and equipment. The system, known as audiovisual education, which included audio and video components in the training, was extremely effective for the military (Horton, 2000, p. 3).

Computer-conveyed education is referred to under a variety of names; however, all of the forms "store and deliver educational lessons" (Horton, 2000, p.3). They are:

- Computer-aided instruction (CAI) (a term used primarily in educational institutions)
- Computer-based education
- Computer-based instruction
- Computer-based training (CBT) (a term used primarily in industry)

The Internet technologies evolved from the need to develop a communication network that could withstand a nuclear attack. Because several universities were given access to the developing network, due to their involvement with defense research, they started to branch out and develop other components. This led to the development of "e-mail, file-transfer programs, newsgroups, and

repositories of text documents. And eventually--as the system was opened to the general public--the Internet" (Horton, 2000, p. 4).

### The World Wide Web

The World Wide Web (WWW), "developed at CERN, the particle accelerator research facility in Switzerland" originally "was intended as a way that researchers could share their academic papers over the Internet" (Horton, 2000, p. 5). They developed the HTML, or Hyper-Text-Markup-Language.

HTML was so easy to use that the general public was able to use it as well. Now millions of people could easily gain easy access to a wealth of information and resources. They were also able to contribute to the WWW causing an exponential growth. WBT evolved from that development.

WBT has its advantages and disadvantages (see Table 14) that have been categorized in great detail by Horton (2000). The advantages he identified, confirmed the benefit of the WWW for the student, in that it supports the learning process. It widens the student's exposure to the real-world, provides them with time to reflect, and develops thinking.

Finally, the training relates to the needs of the adult learner in the workplace and allows the learner to use his or her preferred learning style.

Table 14. Web-based Training Advantages and Disadvantages

Advantages	Disadvantages
Activates learners	Instructor effort needed
Exposure to real-world	Attitude of teacher
In-depth experience	Lack of basic skills
Develop thinking skills	Impersonal nature of Web
Time to reflect	Continuous revision
Collaborative learning	Loss of human contact
Effective learning technologies	Meanings are misinterpreted
Emphasis on learning not bodies in seats	Technical problems
Identify knowledge resources	Technical requirements
Resources there when needed	Preference for lectures or other traditional formats
Adapts to learner's style	Resistance to change
Financial savings	Web distractions
Increase technical knowledge	Hypermedia confusion
Access is any time any place	Limited social interaction
Content flexible & evolving	
Training is related to work	

Source: Horton, 2000, pp. 19-40.

The disadvantages Horton (2000) recognized, originated primarily with the teacher's attitude toward technology, a lack of basic technology skills, the absence of personal contact, and the potential for misinterpretations.

#### Basic and Complex Applications

The success of the military training application set the tone for technology to be viewed as an effective delivery tool in education. In the 1950s, Stanford University, in partnership with IBM, integrated CAI into the elementary schools, primarily for drill-and-practice activities.

This drill-and-practice format of the 1950s, advanced through the advocacy of B.F. Skinner, was based on instructional steps, responses, and immediate feedback for the learner. It emulated the traditional behaviorist style sequenced, stimulus-response instruction (Levy, 1997, pp. 14-15).

The transition from basic to complex applications was promoted with the advancement from mainframe to personal computer (PC) technology. The first major breakthrough that elevated the use of computers from the basic application as tools to a higher more complex application for complex subjects came in the 1960s.

## Two Leading Projects

The two leading projects, PLATO and TICCIT, were intended for the study of foreign languages and other subjects (Levy, 1997, p. 15).

The University of Illinois implemented PLATO, which stands for Programmed Logic for Automatic Teaching Operations in 1960. The project evolved well into the 1970s "delivering 50,000 student hours of language instruction in a dozen languages, plus 50,000 hours in other curricula" (Hart, 1995, p. 30). The delivery system remained on the more mechanical level used for vocabulary and grammar drills. The technicians and educators involved in the development of PLATO wanted to incorporate more student-authoring capabilities. Hart (1995) describes the instructional design as follows:

There are two basic approaches to authoring [Computer-based instruction] CBI. One, which might be termed the 'paradigm' method, provides a set of prefabricated instructional formats (e.g. matching, multiple-choice, paired associate drill); the author's task is then to fit content into these schemata as parameters. The other provides a 'toolbox' of general capabilities which the author can use to construct whatever

instructional design he/she wishes. The latter is much more powerful, but also requires more of the lesson author. Both procedures have valid uses.

(pp. 16-17)

TICCIT, or Time-Shared, Interactive, Computer Controlled Information was implemented in 1971 by Brigham Young University in Utah. It is considered to be the first multimedia system as it combined audio, video, and text. The initial version, though it provided the student with more controls over the utilization of the content, did not allow for choices of content or student authoring options. The drill-and-practice realm of instructional delivery is based on what developers call 'Rule, Example, Practice' (REP) model. The development of a model called ADAPT allowed three authoring levels.

With ADAPT, the advice given to the user is much less prescriptive, in fact, it is quite the opposite. Prescriptive designs which preclude options in presentational and instructional formats may not be received kindly by materials developers because they demand control not only over content, but also over the way the content is presented as well. (Levy, 1997, p. 19)

This posed to be challenging for developers due to the complexity of design and development. On the other hand, it provided the student with more flexibility, including control over a wide array of options to make decisions and construct his or her own knowledge. This flexibility to create one's own knowledge is symptomatic of a constructivist foundation. The development from a limited drill-and-practice application to an option-loaded, flexible learning environment, also allowed the transition from a strictly behaviorist approach to a constructivist approach.

#### Summary

The advantages of WBT parallel the benefits of constructivism. The opportunity to help ESL students develop higher-order thinking skills, offer learning that is relevant to real-world scenarios, increase workplace skills, and adapt instruction to different learning styles are advantages of WBT that correspond to the elements of a CLE. WBT can serve as the medium for professional development workshops and online ESL instructional goals.

## CHAPTER THREE

### THEORETICAL FRAMEWORK

#### Model of the Constructivist-learning Environment

Bridging the gap between theory and function is a challenging task. Recognizing the potential benefits of the theoretical application and understanding how to convert adult learning theory into functional applications in the classroom is only the first step. The second step is the exploration of the psychological realm within each adult learner, defined as the affective, conative, and cognitive domains. Third, one must recognize and apply the benefit of integrating instructional technologies (Computer-enhanced learning or Web-based Training) to support learning. Fourth, one has to apply the accountability strategies of assessment, management, and instruction, as defined by the California Adult Literacy Professional Development Project (CALPRO), in this constructivist-learning environment. Addressing the psychological realm of the adult learner, supported by technology, assessment, management, and instructional strategies with adult-learning theory creates the CLE.

The opportunity to introduce the CLE comes through the professional-development workshops. If the training of



facilitators is conducted based on the concepts of adult-learning theory and with the application of constructivist principles, then the facilitator, having experienced the "construction" of knowledge first hand, will be able to pass on this experience to his or her adult learners. The goals illustrate, in the CLE model, how the students' ESL learning environment parallels that of the teacher receiving professional training as a teacher of English to speakers of other languages, TESOL (see Figure 2).

In both cases, the students are adult learners; therefore, the same adult-learning theory applies and the same constructivist strategies affect the outcome of learning. The benefit of applying constructivism in the classroom, as well as for professional development, is that the outcome of the professional development for facilitators will positively influence the learning outcomes of the ESL learner. The experience of the teacher is passed on, with conviction, to the adult learner who, in turn, discovers the experience of learning in a constructive manner.

#### Goal of Constructivist-learning

The goals for the adult learner in ESL are: acquisition and learning, workplace and life skills, socialization and

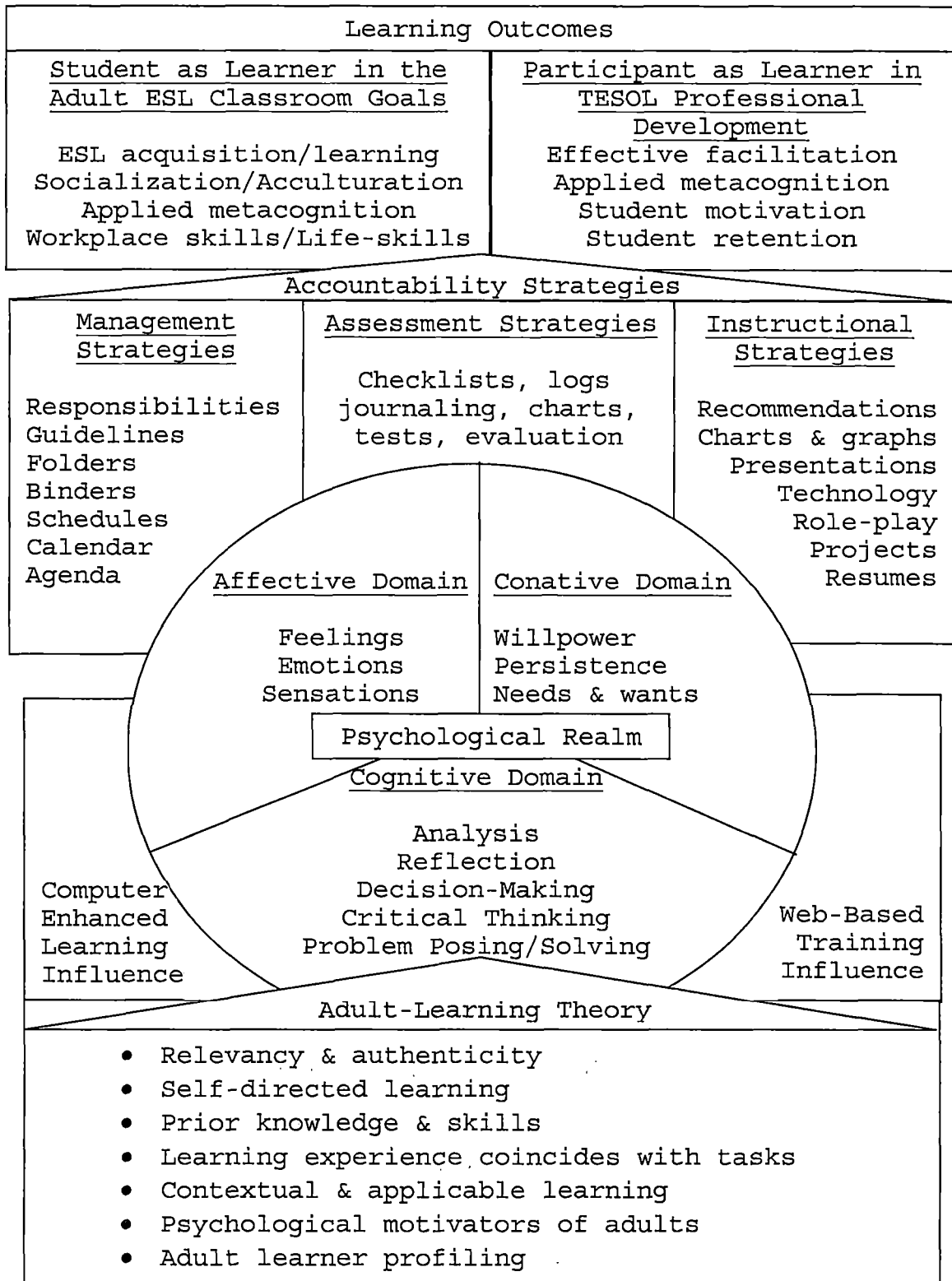


Figure 2. Constructivist-learning Environment Model

acculturation, applied metacognition. The goals for the facilitator as learner in TESOL professional development are: effective facilitation of English-as-a-second-language (ESL) acquisition & learning, applied metacognition, student motivation, and student retention.

Applied metacognition is a goal for both the adult learner and the facilitator. The metacognitive skills of planning, monitoring, and evaluating can be applied in facilitating learning and workplace and life-skills.

#### Theoretical Foundation

The CLE model is founded upon adult learning theory. The theory addresses the needs of the adult learner, profiles the adult learner, and identifies the best approach to facilitate learning in adults.

Some components of adult learning theory are significant in a CLE. These are:

- Relevancy: When the learning process has relevancy for adults outside of the classroom, adults learn.
- Self-Directed Learning: Adults want to be respected as they take ownership of their own learning process.
- Recognition of prior knowledge and skills: Adults require respect and recognition for their unique knowledge and skills.

- Learning experiences coincide with developmental stages: Knowledge about language developmental stages and language acquisition and learning, provides the adult student with learning continuity and the confirmation of progress.
- Contextual and authentic learning: Facilitation of learning is more effective in context and connected to real-world scenarios.
- Psychological motivators: Profiling the adult learner and understand the psychological motivators for learning creates motivation and ensures student retention.
- Adult learner profile: Awareness of the differences in age, culture, gender, background, prior education, work history, family and community status, prior knowledge and skills, and internal and external motivators assists the facilitator in choosing appropriate instructional strategies that complement the needs of the adult learner.

The interaction of these components allow the CLE to be student-centered, multifaceted, experiential, exploratory, and collaborative in nature, while constructing knowledge that is not predetermined.

## The Influence of Technology

Learning in the classroom or for professional development is intended to prepare the adult learner for real life scenarios. The need to integrate the technologies into the classroom and develop their benefits for professional development as they relate to knowledge acquisition, therefore, becomes self-evident. The reason for having the student influenced by computer-enhanced learning and Internet technologies is in the benefit of access to vast resources and the connectivity to the real world.

Computer-enhanced learning and the learning opportunities provided by Web-based Training (WBT) also effectively influence TESOL educators. The facilitator gains access to vast resources, instructional guidance and support, and current research.

## Accountability Strategies

Adult learners are motivated by the opportunity to take ownership of their learning. Ownership of learning, normally an intangible concept, becomes more tangible to the adult learner when they can participate in accountability (monitoring) measures. The concept of learning, especially when entirely under the control of the teacher, usually lacks significance of meaning for the student. The effective

facilitator, however, provides the student with constructive learning that enables the learner to identify affectively, conatively, and cognitively with tangible learning processes. With such ownership comes a sense of pride and a desire to be a responsible, while self-directing the learner from a mere passive recipient of knowledge to a constructor of his or her own knowledge.

The three accountability strategies of importance to the facilitator and to the adult learner in the CLE are: assessment strategies, management strategies, and instructional strategies (CALPRO, 2004). These accountability strategies provide a means of monitoring and measuring the effectiveness of the learning process. When applied appropriately, these strategies, support constructivist principles and utilize adult learning theory effectively to increase students' learning gains and achieve successful learning outcomes.

First, assessment strategies provide the means for the facilitator to examine student development and for the student to self-regulate his or her own learning progress. As the adult learner participates in assessment strategies, the involvement provides confirmation as self-directed learners, an important component of adult learning theory. The adult learners develop pride in learning as they direct

and guide their learning destiny, reflect on their individual learning goals, and think about how they learn best.

Second, management strategies apply to both the adult learner and the facilitator. Appropriate planning and organizational strategies support the continuity of learning and empower the adult learner to accept responsibility for setting learning goals.

The most effective organizational strategies will provide:

. . . the learner with both knowledge of cognitive processes and strategies (to be used as Metacognitive knowledge), and experience or practice in using both cognitive and metacognitive strategies and evaluating the outcomes of their efforts (develops Metacognitive regulation).

(Livingston, 1997, p. 3)

Management requires organization, and organization requires planning. Planning, a metacognitive skill, encourages the adult learner to self-direct the outcome of their learning.

Third, instructional strategies provide the adult learner with a variety of ways to approach learning. Depending on the preferred learning style, the adult learner

may excel using one strategy over another. Providing a variety of strategies ensures that each adult learner will experience success in his or her learning endeavors.

### Learning Outcomes

As shown in the CLE Model, the learning outcomes for the ESL student are ESL acquisition and learning, as well as motivation, empowerment, and ownership of learning. The learning outcome for TESOL is to become an effective facilitator as measured by student retention and student motivation. TESOL and the ESL student are co-constructors of knowledge. Mutually beneficial learning outcomes are the development of social and cultural competence, and the desire for self-directed and lifelong learning.

The positive spiral of learning begins as the student and the facilitator internalize the sensation of learning success (affective domain), develop a will and desire for lifelong learning (conative domain), and engage in higher-order thinking skills (cognitive domain). The balanced interaction of all three domains leads to the expressed goals.



CHAPTER FOUR  
CURRICULUM DESIGN

The professional development workshop (Appendix A) presents semiotic techniques applied to English-as-a-second-language. The target audience consists of adult learners who teach English-as-a-second-language in adult education programs. Appendix B and C contain two instructional plans. The first instructional plan (Appendix B), entitled "My Personal Portfolio," incorporates the use of metacognition. The instructional plan presented in Appendix C, entitled "Cultural Elements," exemplifies the application of critical thinking techniques to facilitate English-as-a-second-language learning.

The TESOL workshop applies semiotics to ESL. This adaptation stems from a course content designed by Dr. Lynne Díaz-Rico (California State University, San Bernardino). Semiotics, as applied in this workshop, is an observation technique that stimulates the use and production of language. This professional development workshop models the application of semiotic techniques in ESL and provides participating teachers with the opportunity to parallel their students' experience.

The role of the presenter is secondary to the role of the participant. As the participants begin to explore and discover the semiotic technique through metacognitive application, the presenter acts merely as a facilitator and guides the semiotic process, while applying knowledge of adult learning theory. The presenter adheres to an approach that will encourage interaction with the participants and ensures that affective barriers are lowered or eliminated, so that the cognitive domain is stimulated and the conative domain is developed.

A constructivist-learning environment (CLE) is created by emphasizing the contributions of the participants, encouraging their use of higher-order thinking skills, recalling prior knowledge, while promoting the active use of the English language.

The theoretical model introduced in Chapter Three shows that a CLE and the knowledge of adult learning theory in a professional development workshop offers participants a valuable procedural tool if applied in their own classroom.

The instructional plan (Appendix B) entitled "My Personal Portfolio" is a design for the application of metacognition when students design and develop a portfolio as an alternative assessment. As students design and develop a portfolio, which, as an alternative assessment, breaks

with traditional assessments, they construct new meaning and insight and apply planning, monitoring, and evaluation skills to develop their understanding of the new knowledge. This has been defined as metacognition. The task chains guide the students in the planning, organizing, and evaluating of their work. The constructivist principles become apparent in activities that require metacognition, promote ownership in the learning process, and stimulate reflection. This instructional plan applies elements of psychological constructivism as the adult learner discovers knowledge and deals with a complex design and development through questioning and reflection.

The instructional plan presented in Appendix C, entitled "Cultural Elements," exemplifies the application of critical thinking techniques. Students participate in social interaction by actively producing and listening to English to engage in real conversation, to defend a position, and to ask for the opinions of others. Students will construct knowledge by using language to gather information, to explore culture, and reflect on cultural elements. The computer graphics enhance learning and the concept mapping visually constructs meaning for the students. This instructional plan applies the elements of Vygotskian constructivism as it emphasizes the importance of culture

for the individual. It also shows the connection between the sociocultural environment and the individual.

The professional development workshop and the two instructional plans apply the key concepts explained in Chapter Two. They are founded upon adult learning theory and incorporate key elements of constructivism, which create the CLE and serve to attain the goals specified in the theoretical model.

## CHAPTER FIVE

### ACCOUNTABILITY STRATEGIES

#### Introduction

The successful CLE relies on three accountability strategies: assessment strategies, management strategies, and instructional strategies. Each of these strategies provide continuous monitoring, measuring, and goal setting of the adult learner's knowledge acquisition progress. As pointed out in Chapter Two, it is a myth that a CLE is lacking structure and planning. When the facilitator and the adult learner collaborate in planning, management, and instruction, a successful CLE is inevitable, because learning evolves progressively, not through systematic prescription. The self-directed adult learner, as well as the facilitator, must be involved in all three accountability strategies.

#### Assessment Strategies

Assessment strategies can be implemented at any time during the learning process and are not prescribed by certain lessons. They are an integral part of a CLE. When the adult learner understands the value of monitoring his or her own progress, and takes an active role in a variety of

assessments, it is a CLE. Assessments that contain constructivist components are authentic and meaningful to the adult learner. They assist the adult learner to self-monitor his or her own progress. Some strategies are:

- Creating competency checklists
- Utilizing learning logs
- Incorporating progress charts
- Encouraging self and peer evaluations
- Employing rubrics
- Maintaining reflection journals

#### Management Strategies

In corroboration with the facilitator, the adult learner takes responsibility for managing his or her own learning. By planning and organizing, the adult learner actively directs his or her own learning and becomes a productive member of the learning team. Some of the strategies provide the adult learner with a record of tangible work products that will enable the learner to reconstruct their own learning gains over time. Continued documentation of the learning process provides the needed encouragement for enduring learner motivation.

Some management strategies, when used by the facilitator, act as models for the adult learner. Both the facilitator and the adult learner stay focused on tasks, set priorities, and retain continuity in learning.

The adult learner can participate in constructing the management and organization strategies by:

- Creating classroom guidelines
- Retaining folders & binders
- Utilizing progress charts and checklists
- Developing tests
- Generating agendas, timelines, and schedules
- Accepting assigned responsibilities
- Setting personal, workplace, and academic goals
- Maintaining personal portfolios

### Instructional Strategies

Varying the instructional strategies gives all of the adult learners, regardless of their individual learning style, the opportunity for a successful learning outcome. All adults have individual preferences about how they approach learning. Within a CLE the facilitator recognizes and respects these differences, and supports the preferred strategies of each individual. By practicing different

strategies in the classroom, the adult learner recognizes that he or she has the ability to be a productive worker and contributing member of the community.

Some instructional strategies are:

- Writing student resumes
- Developing letter of recommendation
- Producing student projects
- Displaying student presentations
- Writing from picture prompts
- Developing dialogues
- Performing role play
- Creating Student stories
- Applying functional phrases
- Creating charts & graphs
- Using graphic organizers
- Designing mental models
- Using discussion prompts
- Using technology applications
- Developing portfolios
- Analyzing concepts
- Posing and solving problems



## Accountability Strategies in the Professional Development Workshop and Instructional Plans

The accountability strategy applied in the professional development workshop, Semiotic Techniques for Multilevel ESL, is the reflection strategy. Participants are challenged to apply the semiotic techniques experienced and performed in the workshop with their adult learners. The reflection strategy asks the participant to observe the adult learners as they apply the semiotic techniques based on their level of proficiency in the English language. After observing the adult learners, the participant is asked to reflect on the lesson and write down some of the salient points regarding the lesson. The prompts are provided to stimulate reflection. Once the thoughts are on paper, the next action for the facilitator is to make adjustments in the lesson where he or she feels it would be most appropriate and beneficial for the adult learner.

The instructional plan entitled "My Personal Portfolio" contains reflection strategies during the lesson and a final assessment. During the lesson the adult learner is encouraged to reflect upon their progress and engage in self-evaluation of their work. A rubric is provided to assist the adult learner in evaluating the design and development of the portfolio. An additional self-evaluation

work sheet gives the learner the opportunity to reflect and write down areas of strength and areas of weakness regarding the portfolio. Finally, questions are provided to the learner to help them evaluate what they have learned. The guide questions stimulate thought about the project and emphasize the lesson objective to use the metacognitive skills of planning, monitoring, and evaluating.

The final assessment of "My Personal Portfolio" provides the adult learner with the opportunity to use the lesson vocabulary to create meaning and use the appropriate word to create a meaningful sentence. The final assessment requires the use of higher-order thinking skills as the learner, not only produces a word with the opposite meaning of the word give, but also uses the language to produce sentences applying the meaning of the word.

The instructional plan entitled "Cultural Elements" contains a final performance assessment. The adult learners give a presentation about their findings. Based on the rubric, the group members are individually evaluated by their peers and the facilitator, during their presentation. Each group member has the opportunity to self-evaluate their performance after their presentation.

APPENDIX A  
A PROFESSIONAL DEVELOPMENT WORKSHOP  
APPLYING SEMIOTIC TECHNIQUES FOR  
ENGLISH-AS-A-SECOND-LANGUAGE

## SEMIOTIC TECHNIQUES FOR ENGLISH-AS-A-SECOND-LANGUAGE

Adapted from:

Díaz-Rico, L. (2004). Semiotics investigation conducted in EESL 536 (Crosscultural Teaching), California State University, San Bernardino.

Goal: To facilitate the use of semiotic techniques in the English-as-a-second-language (ESL) classroom towards progressive application of higher-order thinking skills and language fluency.

Foundation: The facilitation of semiotic techniques in the ESL classroom is based on principles of constructivism and adult learning theory. Emphasis is placed on modeling strategies for the participants that will encourage students to apply metacognitive skills. Participants learn how to apply what they have experienced in the workshop in order to encourage their students to use higher-order thinking skills such as, questioning, problem solving, observation, reflection, inference, and prediction. The workshop presentation serves as a model lesson plan for TESOL.

### Objectives:

- Define semiotics as it applies to English language acquisition
- Describe and apply semiotic techniques of observation and inquiry
- Practice multilevel ESL grouping strategies
- Present the workshop using the WIPPEA (Warm-up, introduction, presentation, practice, evaluation, application) lesson plan as a presentation framework
- Apply semiotic observation and inquiry techniques to photographs of Japanese *fashionistas*

Workshop time: Two (2) hours

Participants: Workshop is best suited for 20 people (4 groups of 5 people each).

Target Audience: Teachers of English to speakers of other languages (TESOL).

### Materials checklist:

- Four (4) laminated *fashionista* photographs (8 ½ by 11)
- *Fashionista* card samples
- Workshop handouts
  1. Brief explanation of the "colored dots"
  2. Agenda
  3. What is semiotics?
  4. Semiotics as applicable to ESL levels (graph)
  5. Semiotic observation levels (SOL) - linear format
  6. Semiotic observation levels (SOL) - global format
  7. Group activity guidelines - Focus sheet 1
- WIPPEA lesson plan
- PowerPoint presentation
- White board pens, flipchart markers
- Nametags for participants
- Evaluation forms (evaluate the presenter)
- Yellow, blue, red, and green 1" dots (have smaller dots available for possible additional groups)
- Yellow, blue, red, and green construction paper
- Chenille stems (for kinesthetic learners)
- Pens
- Sign-in sheet (as necessary)
- Presenter evaluation forms (as necessary)

### Equipment and presentation support items:

- White board, erasable markers, and eraser
- Flipchart paper, stand, and pens
- Portable personal computer (PC)
- LCD projector and screen
- Extension cord

### Before the workshop:

- Obtain the *Fashionista* pictures (sources listed below)
- Prepare a PowerPoint presentation for the presentation portion of the workshop
- Get participant folders ready
- Prepare handouts
- Assemble a variety of "unusual" items of clothing
- Enlarge the *Fashionista* pictures from the book or from the cards

Source of Fashionista pictures:

- Book - Fruits (2004) by Shoichi Aoki available at Amazon  
<http://www.amazon.com>
- Cards - Fruits (2004) by Shoichi Aoki available at Amazon  
<http://www.amazon.com>

Websites

- Fruits Magazine (2004)  
<http://www.geocities.com/sheishun/fruitsmagazinefashions.html>
- Tokyo Street Style Harajuku  
<http://www.style-arena.jp/english/street/harajuku>
- Japan May 2001:Tokyo, Harajuku / Takeshita Street  
[http://www.burgessbroadcast.org/japan/2001/001\\_Tokyo/021\\_Takeshita\\_Street](http://www.burgessbroadcast.org/japan/2001/001_Tokyo/021_Takeshita_Street)
- Black Moon - Youth Fashions in Tokyo  
<http://www.theblackmoon.com/GenX/photo1.html>

Pre-workshop preparation:

- Set up computer, LCD, and screen
- Set up tables (or participant chairs) in clusters for four (4) groups (yellow, blue, red, and green)
- Set up a "Welcome Table"
  1. Pens
  2. Sign-in sheets (as necessary)
  3. Nametags for participants
  4. Colored dots: Place a dot on each nametag. Rotate through the four colors to evenly distribute the participants into their groups.
  5. Yellow dot - represents Beginning High ESL  
Blue dot - represents Intermediate Low ESL  
Red dot - represents Intermediate High ESL  
Green dot - represents Advanced ESL
  6. Provide participants with workshop handout packet, explanation of "colored dots," and workshop evaluation form.
  7. Use the colored construction paper to label the chairs for the groups.

- Handouts:
  1. Explanation of dots and agenda
  2. Semiotic observation levels (SOL) chart & list
  3. Definition of semiotics
  4. Group activity focus sheet
  5. Flipchart paper / pen

## Workshop Outline

### I. Workshop introduction (10 minutes)

- Introduce workshop and presenter
- Participants introduce themselves to other members of their group
- The presenter sets the stage by saying, "Pretend that you are all ESL students. During this workshop you will perform according to the English language comprehension and fluency level represented by the color of the dot on your nametag. Your goal is to achieve fluency in English-as-a-second-language by applying higher-order thinking skills and communicate your observations and idea about the *Fashionistas* by applying the English language.
- Presenter's goal: To encourage the use of higher-order thinking skills to promote English-as-a-second-language (ESL) fluency through the application of vocabulary, aural, oral, reading, and writing skills within a semiotic framework.

### II. Warm-up (10 minutes)

- The presenter begins to put on "unusual" items of clothing. The items consist of extremely loud colors and the combination of items is contrary to what would traditionally be considered a fashionable ensemble. Based on generally acceptable "rules" of fashion, nothing matches; everything clashes or is extreme.
- Ask participants to respond to what they see by asking them to describe the physical items of clothing and encouraging them to express their emotions about what they see.
- The presenter points out that the participants have just applied the semiotic techniques of observation, reflection, and analysis; they have used higher-order thinking skills; and have applied the English language to communicate and contribute to the class.

### III. Introduction to Semiotics (10 minutes)

- Referring to the semiotic observation level (SOL list), the presenter introduces the rationale for each of the ESL levels as they pertain to semiotic observation techniques.
- The presenter defines and gives a brief history of semiotics.
- After introducing the *fashionistas* of Harajuku, Tokyo, the presenter explains how the pictures will serve as the source for the semiotic observation and how the technique relates to Multilevel ESL.
- The language benefits of using the technique are explained, including the application of aural, oral, reading, and writing skills. Language fluency. Comprehension, usage, vocabulary building, and above all, fun.

### IV. Presentation (15 minutes)

The presenter shows the PowerPoint presentation by modeling the use of semiotic techniques applied to *fashionista* pictures.

### V. Practice (50 minutes)

- Each of the four groups is provided with a *fashionista* photograph, paper, pen, and Activity Focus Sheet.
- Each group works according to their level of English fluency as represented by the color of the dot on their nametag.
- Each group is given one (1) picture of a *fashionista*.
- Each group is given the Group Activity Guidelines - Focus Sheet 1
- Groups have 30 minutes to prepare a five (5) minute presentation on their given *fashionista*. (4 groups with 5 minutes each to present - 20 minutes)
- The group activity guidelines are as follows:
  1. A group leader is designated to follow the Group Activity Guidelines - Focus Sheet 1
  2. Presentation levels parallel semiotic observation levels as follows:
    - Yellow presents levels 3 & 4
    - Blue presents levels 4 & 6
    - Red presents levels 7 & 8
    - Green presents levels 9 & 10



3. The group designates a "flipchart" writer to write down the descriptive words the group will use in the presentation.
  4. Each person in the group shall contribute to the presentation.
- Each group will first explain the vocabulary on the flipchart before beginning the presentation.

VI. Evaluation (5 minutes)

- Participants complete presenter evaluation (optional)

VII. Application (5 minutes)

- The participants are challenged to apply the semiotic techniques.
- After the participants applied semiotic techniques in their Multilevel ESL classroom, they are asked to observe their adult learners and answer questions that stimulate reflection of the lesson.
- The presenter thanks the participants and closes the presentation.

## Explanation of Colored Dots

Yellow Dot: Go to the tables marked with YELLOW.



You and your group will pretend to be Beginning High ESL students. Please choose your vocabulary according to the probable level of English fluency for this level.

Blue Dot: Go to the tables marked with BLUE.



You and your group will pretend to be Intermediate Low ESL students. Please choose your vocabulary according to the probable level of English fluency for this level.

Red Dot: Go to the tables marked with RED.



You and your group will pretend to be Intermediate High ESL students. Please choose your vocabulary according to the probable level of English fluency for this level.

Green Dot: Go to the tables marked with GREEN.



You and your group will pretend to be Advanced ESL students. Please choose your vocabulary according to the probable level of English fluency for this level.

## Semiotic Techniques for English-as-a-second-language

Adapted from: Díaz-Rico, L. (2004). Semiotics investigation conducted in EESL 536 (Crosscultural Teaching), California State University, San Bernardino.

Goal: To facilitate the use of semiotic techniques in the English-as-a-second-language (ESL) classroom towards progressive application of higher-order thinking skills and language fluency.

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### Workshop Agenda

I. Workshop Introduction	10 minutes
II. Warm-up	10 minutes
II. Introduction to Semiotics	10 minutes
IV. Presentation on Semiotics	15 minutes
Break	15 minutes
V. Practice Semiotic Techniques	50 minutes
30 minutes - Presentation preparation	
20 minutes for presentations - 5 minutes per group	
VI. Evaluation	5 minutes
VII. Application	5 minute

Thank you for participating.

## Group Activity Guidelines - Focus sheet 1

Step 1: Assign a discussion leader.

Responsibilities of the discussion leader:

- Stay focused on the two levels your group will present.

Yellow group: Levels 3 & 4  
Blue group: Levels 5 & 6  
Red group: Levels 7 & 8  
Green group: Levels 9 & 10

- You may mix the information in both levels, or present one level at a time.
- Use English that corresponds to the probable fluency of the ESL level you are representing.
- Decide on a presentation order and include every member of your group.

Step 2: Assign a timekeeper.

Responsibilities of the timekeeper are:

- Watch the time. Your group has thirty (30) minutes to prepare the presentation.
- Your group has five (5) minutes to present.

Step 3: Assign a writer.

Responsibilities of the writer are:

- Write the new vocabulary your group will use in the presentation on the flipchart paper provided.
- Print large enough for the class to see the words.
- Explain or demonstrate the vocabulary before your group presents on the *fashionista*.

Step 4: Have fun with the observations and interpretations.

## Semiotic Observation Levels (SOL) Description

### Observation Level 1

ESL Level: Beginning Low, Intermediate Low, Intermediate High, Advanced ESL

Task: Name the articles of clothing, shoes, jewelry, or accessories you observe.

Possible answers: blouse, pants, dress, petticoat, boots, ring, necklace, earrings, scarf, beads.

### Observation Level 2

ESL Level: Beginning Low, Intermediate Low, Intermediate High, Advanced ESL

Task: Describe the articles of clothing, shoes, jewelry, or accessories you observe.

Possible answers:

Color - yellow, orange, blue, lavender

Material - cotton, wool, leather, silk

Shape - long, square, oval, round, v-shaped, rectangular

Pattern - striped, plaid, flowered, print, diamonds

### Observation Level 3

ESL Level: Beginning High, Intermediate Low, Intermediate High, Advanced ESL

Task: Describe the person physically.

Possible answers: Long arms, oval face, yellow hair, short neck, big shoulders, bent knee, slouches, stands up straight, good/bad posture.

#### Observation Level 4

ESL Level: Beginning High, Intermediate Low, Intermediate High, Advanced ESL

Task: Describe the expressions you observe.

Possible answers:

Facial expressions - smiles teasingly, stares strongly, looks playfully

Mood - fearful, jovial, anxious, hesitant, challenging, cute, adorable, strange, depressed, mistrusting

#### Observation Level 5

ESL Level: Intermediate Low, Intermediate High, Advanced ESL

Task: Describe the textures you observe.

Possible answers: The fabric is rough. The jacket is made of velvet. That's a fluffy toy.

#### Observation Level 6

ESL Level: Intermediate Low, Intermediate High, Advanced ESL

Task: Describe the emotions, feelings, and attitudes you observe.

Possible answers: This person is just crazy; this person has a sense of humor; this person lives in his/her own world. His or her outlook on life is positive/negative.

### Observation Level 7

ESL Level: Intermediate High, Advanced ESL

Task: Describe the person's body language and explain what the characteristics express to you.

Possible answer: This person's head is held high (proud); makes eye contact (secure); slouches (insecure); arms are folded (introverted); hands on hips (assertive).

### Observation Level 8

ESL Level: Intermediate High, Advanced ESL

Task: Describe the person's background (experience, origin, childhood).

Possible answers: What has happened to this person? What kind of experiences has this person had? What was his/her childhood like?

### Observation Level 9

ESL Level: Advanced ESL

Task: Share some controversial questions that come to your mind.

Possible answers: Can I identify with the person? How would my family or community react? Am I too critical, too judgmental? How would I respond?

Observation Level 10

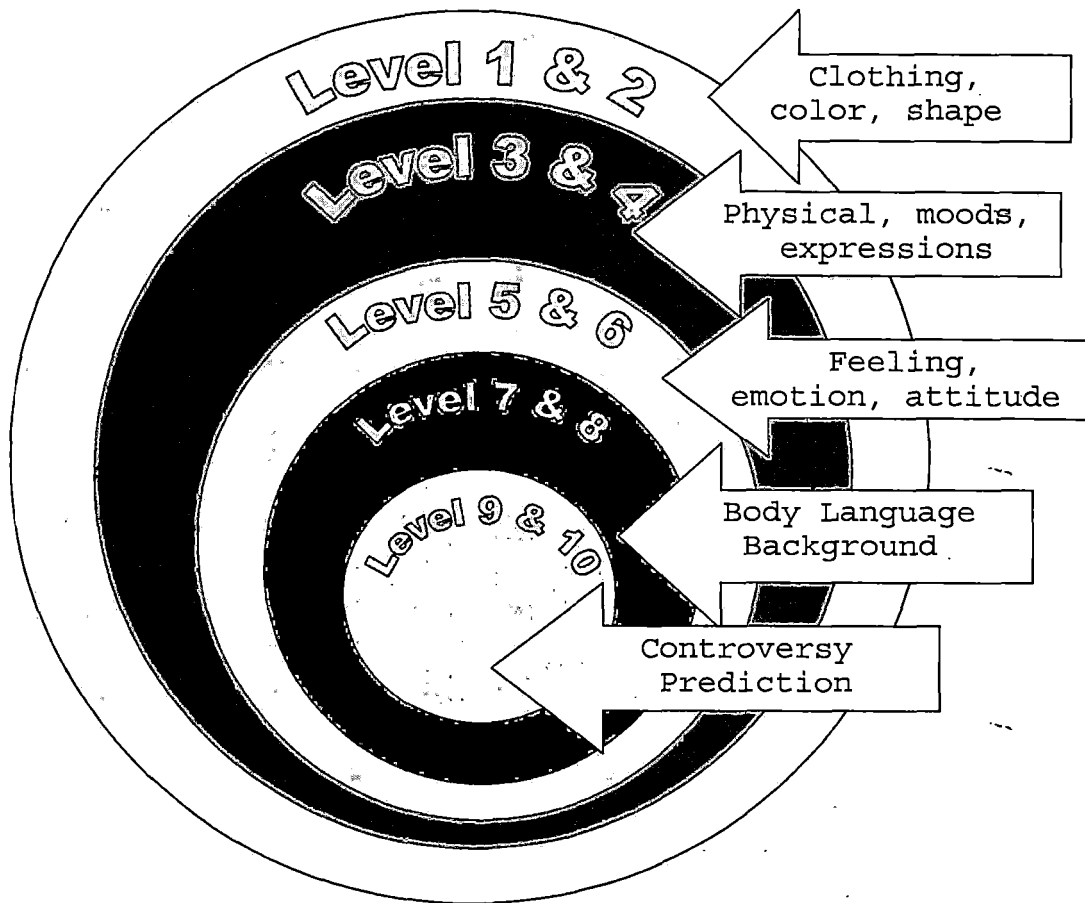
ESL Level: Advanced ESL

Task: Describe this person's future.

Possible answers: What professions will this person chose?  
What value system will this person have? What relationship?



## Semiotic Observation Levels



With each level of observation, the ESL student is required to use increasingly more higher-order thinking skills and semiotic observation techniques.

SEMIOTIC:  
OBSERVATION LEVELS  
FOR ESL APPLICATION

ESL		Semiotic Observation Levels (SOL)								
		1	Clothing							
		2	Color, shape, mood, material							
		3	Person physically							
		4	expressions, moods, textures							
		5	Clothes make the person							
		6	Feeling, attitude, emotion							
		7	Body Language							
		8	Background							
		9	Controversial questions							
	10	Predictions								
Beg. Low										
Beg. High										
Int. Low										
Int. High										
Advanced										



ITCHIE - 20 YEARS OLD

Source: Aoki, S., (2004).



AI - 17 years old

Source: Aoki, S. (2004).



ANNYA - 18 years old

Source: Aoki, S. (2004).



Chee - 23 years old

Source: Aoki, S. (2004).

## Reflection on Applying the Semiotic Technique

1. Time allotment:
2. Warm-up:
3. Introduction:
4. Presentation:
5. Practice:
6. Evaluation:
7. Application:
8. Observations during lesson:
9. Student comments after lesson:
10. Advantages:
11. Disadvantages:
12. What will I do differently?

## PowerPoint Slides

- Slide 1. Semiotics Techniques for Multilevel ESL
- Slide 2. What is Semiotics?
- Slide 3. Layers of Observation
- Slide 4. Application of Semiotics
- Slide 5. *Fashionistas*: Images for Semiotic Analysis
- Slide 6. Mai - Age 16
- Slide 7. Mai
- Slide 8. Clothes
- Slide 9. Toys
- Slide 10. Expressions
- Slide 11. Social Goals
- Slide 12. Isomorphism
- Slide 13. Levels of Semiotic Analysis
- Slide 14. See you in Harajuku



Semiotic Techniques  
for  
English-as-a-second-language

# What is Semiotics?

“ Semiotics is a focus of inquiry.

Semiotics foregrounds

and

problematizes the

process of representation”

(Diaz-Rico, 2004)

# Layers of Observation

- Start with surface observations
- Peel away layer upon layer
- Make new discoveries
- Think about what is not visible
- Go from obvious to obscure
- Observe the “meaning making”
- Construct variable meaning
- Actively interpret

(Diaz-Rico, 2004)

# Application of Semiotics

- To observe, interpret, and analyze culture
- To become aware of visual and linguistic signs
- To attain insights into social positioning
- To recognize the catalysts for prejudice
- To identify judgmental reasoning
- To understand why & how we make sense

Fashionistas:

Images

for

Semiotic

Analysis



**Mai**

**Age 16**

**Fruit Magazine Published 2001**  
**Photos by Shoich Aoki**





CLOTHES

pink  
ribbons

red/white  
plaid pinafore  
(cotton) with  
brown button

plastic bag

pink faux  
flower lei

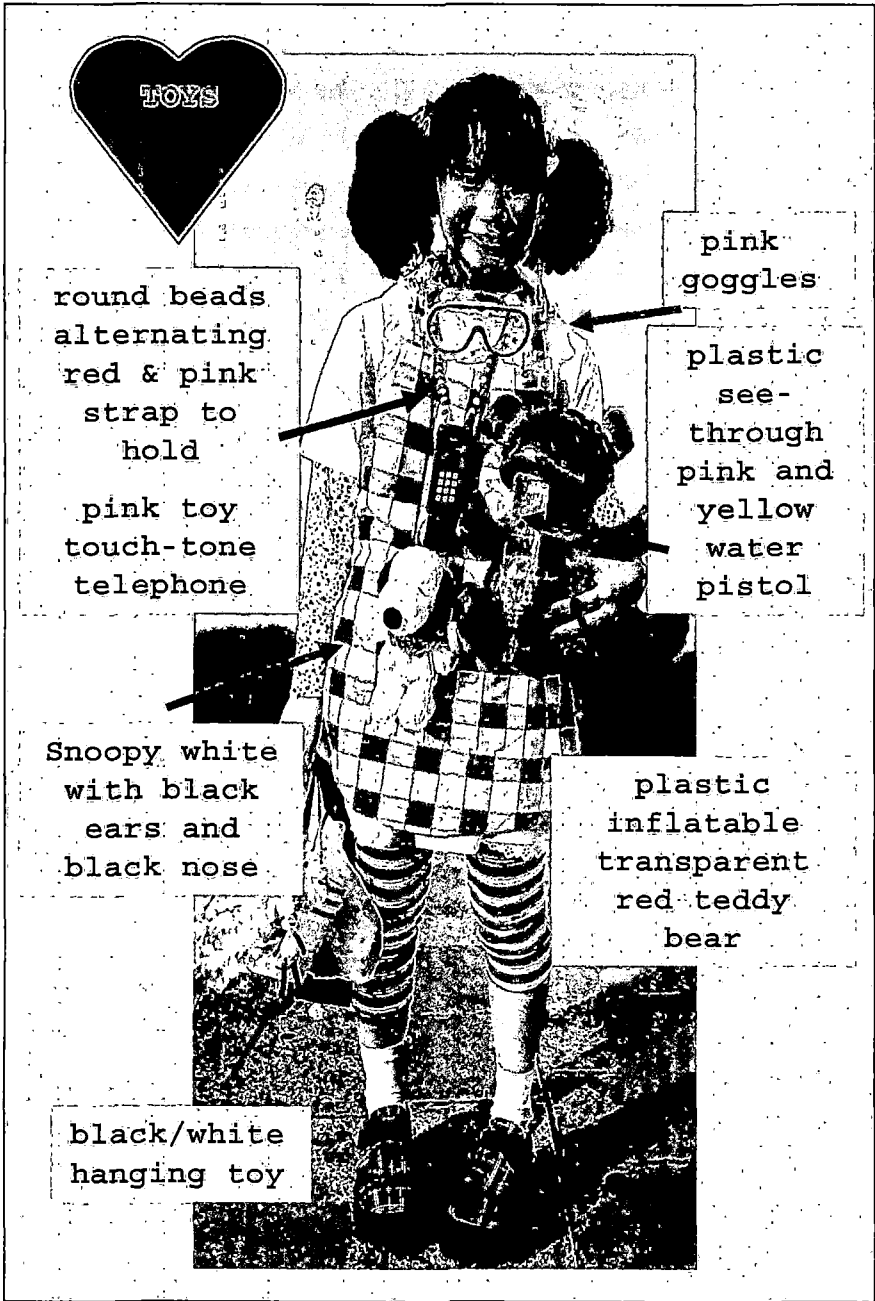
red/white  
horizontal  
striped  
tights

straw tote  
bag

red/black plaid  
fabric platform  
shoes

pink cotton  
ankle socks





TOYS

round beads  
alternating  
red & pink  
strap to  
hold

pink toy  
touch-tone  
telephone

pink  
goggles

plastic  
see-  
through  
pink and  
yellow  
water  
pistol

Snoopy white  
with black  
ears and  
black nose

plastic  
inflatable  
transparent  
red teddy  
bear

black/white  
hanging toy



EXPRESSIONS  
BODY  
LANGUAGE

LIVELY  
HAPPY  
FRIENDLY  
ACCEPTING  
TRUSTING  
LOVING  
CARING  
GENUINE

features in proportion to face  
easy social acceptance

hands childlike w/ painted nails

lower torso forward  
confidant and accepting of people

needs something to love, hold, and care for

knees & legs locked in steadfast position, childlike

gender communication = little girl

Feet inward awkward age

# **Social Goals**

- Draw attention to innocence of childhood
- Accentuate being friendly and trusting
- Fill the need to hold and care for someone
- Ease into womanhood
- Portray the purity of being childlike
- Have fun
- Have no fear of acting silly
- Invite the world to enjoy life
- Look for acceptance
- Be cute, adorable, and caring
- Enjoy an outgoing personality

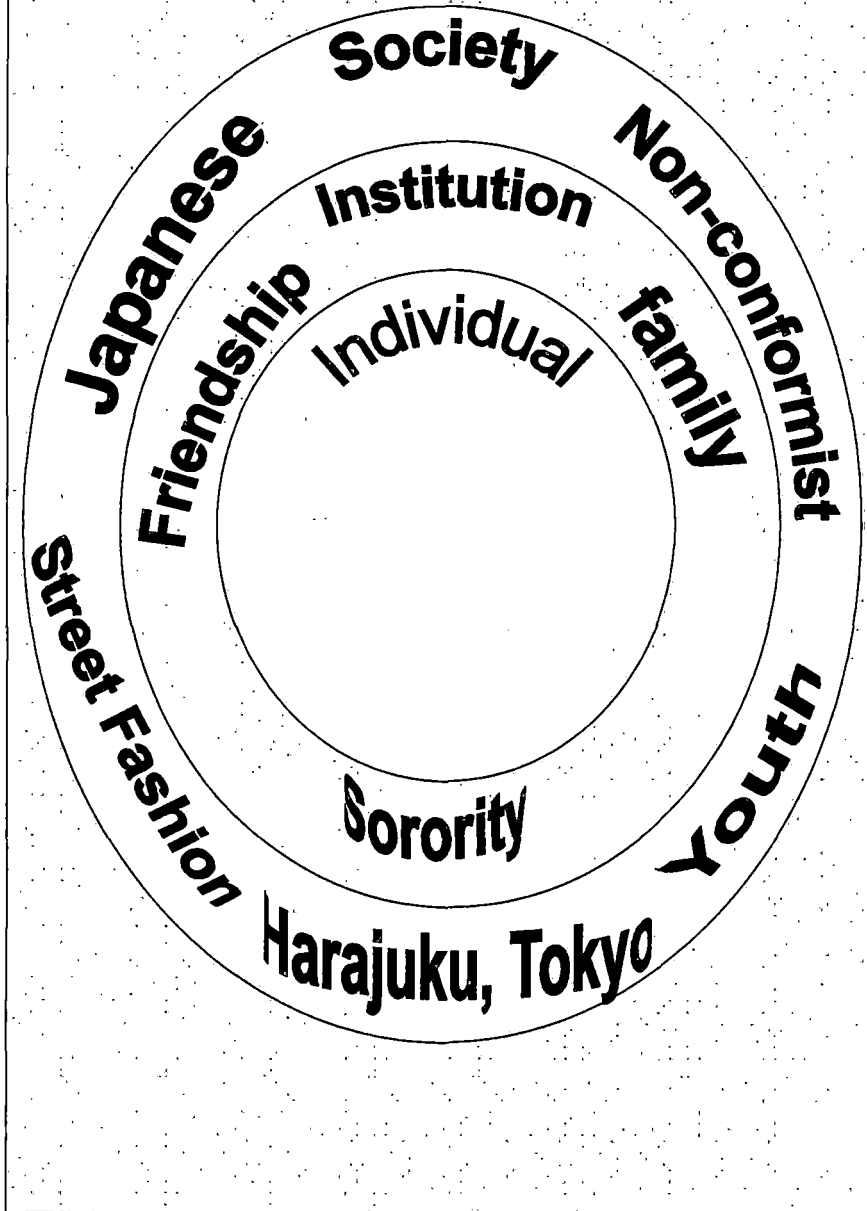
ISOMORPHISM

Pipi  
Longstocking



By Astrid  
Lindgren

Levels of Semiotic Analysis



**See you in  
Harajuku!**



APPENDIX B  
MY PERSONAL PORTFOLIO  
(METACOGNITION)

## Instructional Plan: Metacognition

Title: My Personal Portfolio  
Level: Adult - Advanced ESL  
Duration: 2 1/2 hours

Materials/Equipment: Focus Sheets B-1, B-2, B-3, B-4  
Transparency B-5  
Rubric B-6  
Self-evaluation B-7  
Vocabulary Assessment I and II B-8  
Overhead projector

Objectives:       1. To plan the contents of a personal  
                          portfolio.  
                          2. To organize the content of a personal  
                          portfolio.  
                          3. To evaluate a personal portfolio

ESL Standards:

### Goal 1

To use English to communicate in social settings

#### Standard 3

Students will use learning strategies to extend their communicative competence.

#### Indicator

- Self-monitor and self-evaluate plan

### Goal 2

To use English to achieve academically in all content areas

#### Standard 2

Students will use English to obtain, construct, and provide subject matter information in spoken and written form.

#### Indicator

- Organize the appropriate materials needed to complete a task.



### Standard 3

Students will use appropriate learning strategies to construct and apply academic knowledge.

### Indicator

- Plan how and when to use cognitive strategies and apply them appropriately to a learning task.
- Apply self-monitoring and self-corrective strategies to build and expand knowledge base.
- Evaluating one's own success in a completed learning task.

Warm-up: Show samples of portfolios created by students. Encourage a discussion by asking:  
What things are important to you?  
Do you have a favorite poem or a favorite song?  
Tell us something about yourself that we do not know.

Task Chain 1: To plan the contents of my personal Portfolio.  
1. Explain task: Plan your personal portfolio.  
2. Cover new vocabulary: Focus Sheet B-1  
3. Pair students.  
4. Use Focus Sheet B-2 as guide.  
5. Use Focus Sheet B-3 as guide questions.

Task Chain 2: To organize the content of my personal Portfolio.  
1. Explain task: Organize your personal portfolio.  
2. Use Focus Sheet B-4 as guide.  
3. Continue working in pairs.

Task Chain 3: To evaluate my personal portfolio  
1. Explain task: To evaluate your personal portfolio.  
2. Class exercise: Use Transparency B-5 for class work.  
Class contributes ideas to complete sample (transparency) rubric before creating individual rubric.  
3. Continue working in pairs: Use Rubric B-6 to create individual rubric.

Final Assessment:

1. Self-evaluation Form B-7
2. Vocabulary Assessment I and II B-8

Reference:

- ESL Standards (2001). Teachers of English to Speakers of Other Languages (TESOL). Retrieved October 22, 2001, from <http://www.tesol.org/assoc/k12standards/it/09.html>
- Forte, I. & Schurr, S. (1995). Making portfolios, products, and performance meaningful and manageable for students and teachers. Nashville, TN: Incentive Publications, Inc.

Focus Sheet B-1

New Vocabulary

cover page	the first page of a portfolio.
contents	everything in a portfolio
focus sheet	information to help you
improvement	to become better
to evaluate	to find out if the work is excellent, good, or needs improvement
to organize	to put into order
to plan	to prepare to do something; to think about how it will be done
portfolio	a collection of things and ideas that are special to me.
rough drafts	written work that is not yet completed and not checked for errors
rubric	rules or standards for doing something
standards	a way of doing something that is customary and widely used

---

organized	unorganized
complete	incomplete
planned	unplanned

---

How many?	many	some	few
-----------	------	------	-----

---

<u>Positive</u>	<u>Comparative</u>	<u>Superlative</u>
easy	easier	easiest
difficult	more difficult	most difficult

Focus Sheet B-2

My Portfolio Planning Sheet

What materials do I need?

---

---

Title of my portfolio: \_\_\_\_\_

My cover page:

Describe what you want to do. You may use your computer lab time to make the cover page.

---

---

What type of information do I want in my portfolio?  
(For example: pictures, cassette tape, drawings, poems, stories, school work)

---

---

How do I want to organize my portfolio?

---

---

How will I evaluate my work?

---

---

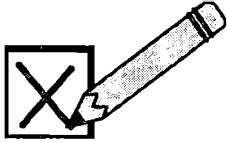
Focus Sheet B-3

What do I want in my portfolio?

1. Do I want to describe my family?
2. Do I want to include what I like or don't like?
3. Do I want to include my talent? Which ones?
4. Do I want to share my hobby?
5. Do I have a favorite poem, song, or book?
6. Do I want to include that I like animals?
7. Do I want to include pictures of family and friends?
8. Do I want to write about my work in the community?
9. Do I want to write about my work for a special organization?
10. Do I want to write about something special that happened to me?
11. Do I want to include my ideas and opinions?
12. Do I want to include jokes or stories about funny situations?
13. Do I want to write about my hopes and dreams?
14. Do I want to show that I can write in English?
15. Do I want to share a story about my culture?
16. Do I want to write about my favorite movie?
17. Do I want to include pictures of my vacation?
18. Do I want to include audio or video tapes?
19. Do I want to include my homework or tests?
20. Do I want to write about my English class?

Focus Sheet B-4

Organize the Content of Your Portfolio



\_\_\_\_\_ Title:

\_\_\_\_\_ Cover Page:

\_\_\_\_\_ Table of contents: (Plan how many chapters you want in your portfolio).

\_\_\_\_\_ Chapter 1: \_\_\_\_\_

\_\_\_\_\_ Chapter 2: \_\_\_\_\_

\_\_\_\_\_ Chapter 3: \_\_\_\_\_

\_\_\_\_\_ Chapter 4: \_\_\_\_\_

\_\_\_\_\_ Chapter 5: \_\_\_\_\_

\_\_\_\_\_ Chapter 6: \_\_\_\_\_

\_\_\_\_\_ Evaluation:

Transparency B-5

Rubric for Evaluating My Portfolio

<u>Excellent</u>	<u>Good</u>	<u>Needs Improvement</u>
My portfolio is complete. I have all of the chapters completed.	My portfolio is almost complete. I have all of the chapters completed. I am missing some examples or materials.	My portfolio is incomplete. I am missing one or more chapter.
My portfolio is organized. All chapters are in a logical order. I can explain the order. I have a cover page. I have a table of contents. Each chapter has a title page.	My portfolio is almost organized. All chapters are in logical order. I can explain the order. I have a cover page. I have a table of contents. I am missing the title page for each chapter.	My portfolio is unorganized. The chapters are not in a logical order. I am missing a cover page. I am missing a table of contents. I am missing the title page for each chapter.
My portfolio is visually exciting	My portfolio is interesting	My portfolio is not very interesting
My portfolio has many examples of my English writing	My portfolio has some examples of my English writing	My portfolio has very few examples of my English writing
My portfolio has many pictures & drawings	My portfolio has some pictures & drawings	My portfolio has very few pictures & drawings

Rubric B-6  
Self-Evaluating My Portfolio

My Name: \_\_\_\_\_

My work is: Excellent	My work is: Good	My work needs: Improvement



Self Evaluation Form B-7

What did I learn today ?

---

What do I like most about this project?

---

What do I like least about this project?

---

What is the most difficult part of this project?

---

What is the easiest part of this project?

---

I do not have any questions.

1. I know how to plan my personal portfolio.
2. I know how to organize my personal portfolio.
3. I know how to evaluate my work.

I have the following questions:

1. \_\_\_\_\_ ?
2. \_\_\_\_\_ ?
3. \_\_\_\_\_ ?
4. \_\_\_\_\_ ?
5. \_\_\_\_\_ ?

Vocabulary Assessment I B-8

cover page	contents	standards	rough
drafts	plan	rubric	portfolio
evaluate	organize	focus sheet	

I. Fill in the correct word:

1. The drawing for the \_\_\_\_\_ of my portfolio is in black and white.
2. I have to \_\_\_\_\_ the information in my portfolio. I have to put the things in order.
3. The \_\_\_\_\_ of my portfolio is very interesting.
4. The \_\_\_\_\_ helps me to understand how to do something.
5. I have to \_\_\_\_\_ my work to see if it is excellent, good, or needs improvement.
6. It is fine to put in the \_\_\_\_\_ of work I have not finished.
7. I am excited about collecting things that are special to me and putting them into a \_\_\_\_\_.
8. Before I organize the things in my portfolio, I must \_\_\_\_\_ what to do.
9. The \_\_\_\_\_ tells me what the rules are.
10. The \_\_\_\_\_ tells me the something is usually done.

APPENDIX C  
CULTURAL ELEMENTS  
(CRITICAL THINKING)

## Instructional Plan: Critical Thinking

Title: Cultural Elements

Level: Adult - Advanced ESL

Duration: 2 sessions of 2 1/2 hours

Materials/Equipment:        Focus Sheet C-1  
                                  Transparency C-2  
                                  Concept Map C-3  
                                  Focus Sheet C-4  
                                  Presentation Rubric C-5  
                                  Overhead projector  
                                  Inspiration Software

Objectives:    1. To brainstorm  
                  2. To create a concept map  
                  3. To apply critical thinking

ESL Standards:

### Goal 1

To use English to communicate in social settings

#### Standard 1

Students will use English to participate in social interactions.

#### Indicators

- Engage in conversations
- Defend and argue a position
- Ask peers for their opinions or preferences

#### Standard 2

Students will interact through, and with spoken and written English for personal expression and enjoyment.

#### Indicators

- Discuss issues of personal importance or value
- Talk about a favorite aspect of culture

### Goal 2

To use English to achieve academically in all content areas

#### Standard 1

Students use English to interact in the classroom.

### Indicators

- Use English language to reach a consensus
- Collaborate in groups to complete task assignment
- Join in a group response

### Standard 2

Students will use English to obtain, process, construct, and provide subject matter information in spoken and written form.

### Indicators

- Compare and classify information using technical vocabulary
- Prepare for and participate in a debate
- Gather information orally and in writing
- Select, connect, and infer from information
- Respond to the work of peers
- Represent information visually and interpret information presented visually

### Standard 3

Students will use appropriate learning strategies to construct and apply academic knowledge.

### Indicators

- Brainstorm ideas with peers
- Use concept mapping to construct meaning

Warm-up: Ask the class:

How do people greet each other in Sri Lanka?  
Bangladesh, Japan, France, Mexico, Thailand  
How do you greet a friend?  
How do you say hello to a person at work?  
Discuss the differences and similarities.

Make the point that:

A greeting is an element that is universal to every culture...

How people greet each other are cultural elements that may be different or similar from one culture to another.

Task Chain 1: To brainstorm

1. Model: Define, and describe universal and cultural elements of cultures. Hand out Focus Sheet C-1.
2. Discuss new vocabulary. Check student understanding of the elements (universal and cultural) by asking for examples.
3. Model: Use Transparency C-2 to model a concept map.
4. Turn off overhead and start brainstorming activity.
5. Ask students to contribute to a list of universal elements. Ask students to use nouns.
6. List all universal elements on the board.
7. Add cultural elements to each of the universal elements.

Task Chain 2: To apply critical thinking

1. Explain task: Ask students to decide which universal elements and which cultural elements are most important in general. Class consensus.
2. Turn on overhead with Transparency C-2. Based on the class consensus, write the universals and cultural elements on the transparency.

Task Chain 3: To use concept mapping

1. Explain task: Ask students to make a concept map using universal and cultural elements of their choice.
2. Pair students.
3. Hand out Concept Map C-3.
4. Students decide on the elements for their Concept Map.

Task Chain 4: To apply critical thinking

1. Note: The cultures chosen for this task chain will vary since the cultural profile varies for each ESL classroom.
2. Form groups of 4 to 5 students to collaborate and work toward a consensus ranking cultural universals and cultural elements.
3. Explain task: Ask student groups to choose a culture to analyze based on the cultures represented in the classroom. Write group choices on the board.

4. Explain task: Ask student groups to rank the universal elements of the culture from most important to least important.
5. Use Focus Sheet C-4 to write down group outcomes.

Task Chain 5: To create a concept map

1. Note: Students have been provided with instruction on how to use Inspiration Software.
2. Explain task: Create concept map based on the group consensus.
3. Computer Lab: Using Inspiration Software, create the concept map. Print final copy on transparency sheets.
4. Provide groups with Presentation Rubric C-5.

Task Chain 6: To give a presentation

1. Group members each contribute to the presentation.
2. Use overhead projector to share concept map with class.
3. Each group has 15 minutes maximum time, plus 5-10 minutes to answer questions from classmates.

Final Assessment:

1. Student presentations  
Use self-peer-instructor presentation  
Rubric C-5

Reference:

Inspiration (2000). Portland, OR: Inspiration Software, Inc.  
<http://www.inspiration.com>

Macy, M.D., (2000). *Teaching ESL/EFL with the Internet*.  
ISBN: 0-13-088540-1

Focus Sheet C-1

Universal Element

Every culture has this element.

Greetings

Cultural Elements

This element is different for each culture.

Japan People bow	Bangladesh Hold hands together in front of chin	Italy Kiss on both cheeks	Eskimos Rub noses
------------------------	---	------------------------------------	----------------------

Universal  
Communication

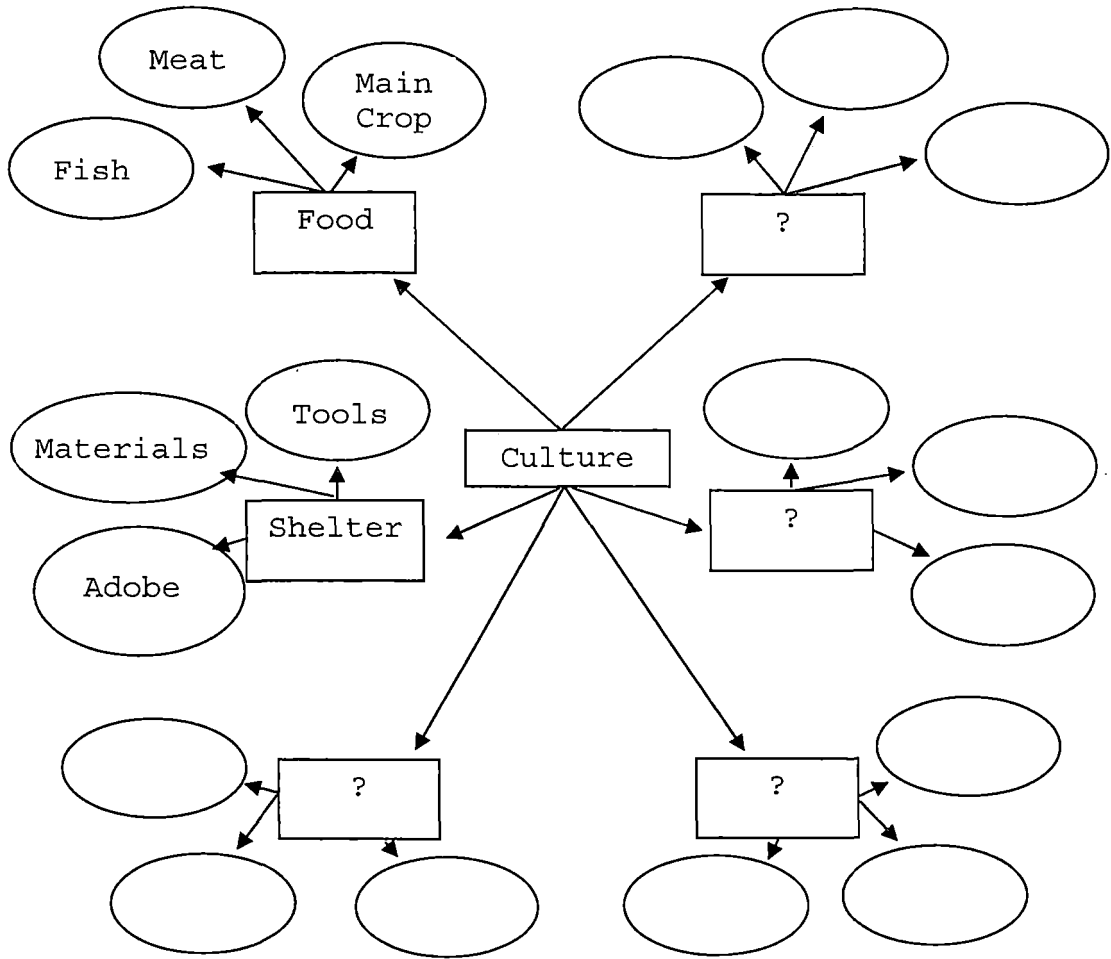
Language	Numbers	Body Language	Symbols
----------	---------	------------------	---------



Transparency C-2

Use a square box for the universal elements

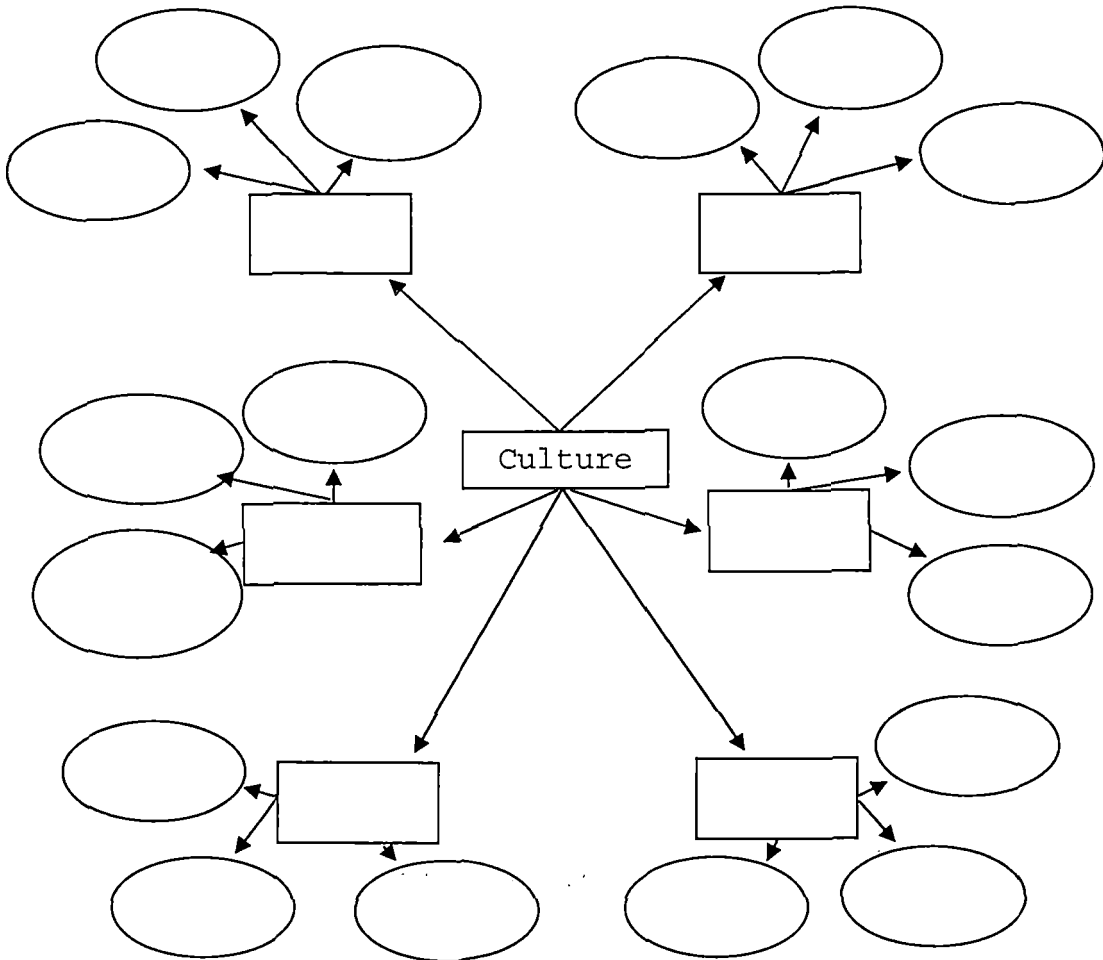
Use an oval for the cultural elements



Concept Map C-3

Use a square box for the universal elements

Use an oval for the cultural elements



1. Decide on a culture you want to analyze.
2. Use your Concept Map as a discussion guide.
3. Discuss and express your opinion in your group.
4. Rank (put in order) from most to least important.
5. Give a reason for your decision.

RANK: The universal element on top is most important.  
The universal element below is least important.

Universal Cultural Elements of: \_\_\_\_\_  
(Insert name of culture)

1.	_____	Most important ↓
2.	_____	
3.	_____	
4.	_____	
5.	_____	
6.	_____	
7.	_____	Least important ↑

Presentation Rubric C-5

EX = Exemplary (1 point)  
 SA = Satisfactory (1/2 point)  
 NR = Not Ready (0 points)

Group \_\_\_\_\_

	Self			Peers			Facilitator		
	EX	SA	NR	EX	SA	NR	EX	SA	NR
Content									
Stayed on subject									
Interest to class									
Clear information									
Preparation									
Information									
Presentation									
Organization									
Taking Turns									
Creativity									
Use of board									
Communication									
Effective									
Natural speech									
Intonation									
Concept map									
Easy to read									
Logical									
Reasons stated									
Time									
Stayed on time									
Time for Q & A									

## REFERENCES

- Abdal-Haqq, I. (1998). Constructivism in teacher education: Considerations for those who would link practice to theory. Online at [http://www.ed.gov/databases/ERIC\\_Digests/ed42696.html](http://www.ed.gov/databases/ERIC_Digests/ed42696.html)
- Abdullah, M. (1998). Problem-based learning in language instruction: A constructivist model. Online at [http://www.ed.gov/databases/ERIC\\_Digests/ed423550.html](http://www.ed.gov/databases/ERIC_Digests/ed423550.html)
- Applefield, J., Huber, R., & Moallem, M. (2000/2001). Constructivism in theory and practice: Toward a better understanding. High School Journal 84(2), 35-54.
- Ashcroft, R. (summer, 2001). Lecture on Effective Communication in Education (EDUC 603). California State University, San Bernardino.
- Barron, A., & Rickelman, C. (1999). "Creating an online corporate university: Lessons learned." ASTD International Conference & Exposition. Atlanta, GA: The American Society for Training & Development.
- Beauvois, M. (1997). Computer-mediated communication (CMC): Technology for improving speaking and writing. In M. Bush & R. Terry (Eds.), Technology-enhanced language learning (pp. 165-184). Lincolnwood, IL: NTC/Contemporary.

Bintrim, L. (2002). Redesigning professional development (EBSCOhost Full Display No. 6504073). Educational Leadership, 59(6), 96.

Boucouvalas, M. & Krupp, J. (1989). Adult development and learning. In S. Merriam & P. Cunningham (Eds.), Handbook of adult and continuing education (pp. 183-200). San Francisco, CA: Jossey-Bass Publishers.

Brookfield, S. (1989). Facilitating adult learning. In S. Merriam & P. Cunningham (Eds.), Handbook of adult and continuing education (pp. 201-210). San Francisco, CA: Jossey-Bass Publishers.

Brooks, J., & Brooks, M. (1999). In search of understanding: The case for constructivist classrooms. Alexandria, VA: Association for Supervision and Curriculum Development.

Bruner, J. (1990). Acts of meaning. Cambridge, MA: Harvard University Press Publishing Group.

California Adult Literacy Professional Development Project (CALPRO) (2004). Professional development seminar, Trainer of Trainers. Sacramento, CA: American Institutes for Research.

California Council for Adult Education (2000).

Adult education in California public schools: Fingertip facts.

California Department of Education, Adult Education Unit  
(1993). English as a second language: Implementing  
effective adult education programs. Sacramento, CA:  
Author.

California Education Policy Seminar (1997, June). The  
digital challenges: Integrating Educational technology  
into California classrooms. The California State  
University of Education Reform. Sacramento, CA: Author.

Chiquito, A., Meskill, C., & Renjilian-Burgy, J.

(1997). Multiple, mixed, malleable media. In M. Bush &  
R. Terry (Eds.), Technology-enhanced language learning  
(pp.47-76). Lincolnwood, IL: NTC/Contemporary  
Publishing Group.

Conrad, K. & TrainingLinks (2000). Instructional Design for  
web-based training. Amherst, MA: HRD Press.

Courtney, S. (1989). Defining adult continuing  
education. In S. Merriam & P. Cunningham (Eds.),  
Handbook of adult and continuing education (pp. 15-25).  
San Francisco, CA: Jossey-Bass Publishers.

Crandall, J. (1994). Creating a professional  
workforce in adult ESL literacy (Report No.  
EDO-LE-94-01). Washington, DC. (AskERIC Document  
Reproduction Service No. ED369308)

- Cross, K. P. (1981). Adults as learners. San Francisco, CA: Jossey-Bass.
- Deshler, D., & Hagan, N. (1989). Adult education research: Issues and directions. In S. Merriam & P. Cunningham (Eds.), Handbook of adult and continuing education (pp. 147-167). San Francisco, CA: Jossey-Bass Publishers.
- Díaz-Rico, L. & Weed, K. (1995). The crosscultural, language, and academic development handbook: A complete K-12 reference guide. Boston, MA: Allyn and Bacon.
- Díaz-Rico, L., & Weed, K. (2002). The crosscultural, language, and academic development handbook: A complete K-12 reference guide (2<sup>nd</sup> ed.). Boston, MA: Allyn and Bacon.
- Díaz-Rico, L. (summer, 2004). Lecture on semiotics. Crosscultural Teaching (EESL 536). California State University, San Bernardino.
- Dilworth, M., & Imig, D. (1995). Professional teacher development and the reform agenda. ERIC Review, 3(3), 5-11. (AskERIC Document Reproduction Service No. ED381136).
- Doff, A. (1988). Teach English: A training course for teachers. Cambridge, UK: Cambridge University Press.



- Duffy, T., & Jonassen, D. (1992). Constructivism and the technology of instruction: A conversation. Hillsdale, NY: Lawrence Erlbaum Associates.
- Egbert, J., Chao C., & Hanson-Smith, E. (1999). Computer-enhanced language learning environments. In J. Egbert & E. Hanson-Smith (Eds.). CALL environments: Research, practice, and critical issues. Alexandria, VA Teachers of Speakers of Other Languages.
- ESL Standards (2001). Teachers of English to Speakers of Other Languages (TESOL). Retrieved October 22, 2001, from <http://www.tesol.org/assoc/k12standards/it/09.html>
- Florez, M. (2001). Reflective teaching practice in adult ESL setting (Report No. EDO-LE-01-01). National Center for ESL Literacy Education. Retrieved May 06, 2002 from AskERIC. (AskERIC Document Reproduction Service No. ED451733). Online at: <http://ericir.syr.edu/plweb-cgi/obtain.pl>
- Forte, I. & Schurr, S. (1995). Making portfolios, products, and performance meaningful and manageable for students and teachers. Nashville, TN: Incentive Publications, Inc.

- Fosnot, C. (1992). Constructing constructivism. In  
T. Duffy and D. Jonassen (Eds.), Constructivism and the  
technology of instruction. Hillsdale, NJ: Lawrence  
Erlbaum Associates
- Gaer, S. & Price-Machado, D. (2004). Organizing and  
monitoring instruction to improve learning gains.  
Sacramento, CA: CALPRO.
- Grabe, M., & Grabe, C. (2001). Integrating technology for  
meaningful learning. Boston, MA:Houghton Mifflin.
- Hart, R. (1981)(Ed.). The PLATO system and  
language study (special issue). Studies in Language  
Learning 3(1), p.7).
- Hart, R. (1995). The Illinois PLATO Foreign Language  
Project. CALICO Journal, 12(4), 15-37.
- Herrington, J., & Standen, P. (2000). Moving from an  
instructivist to a constructivist multimedia learning  
environment. Journal of Educational Multimedia and  
Hypermedia, 9(3), 195-205.
- Horton, W. (2000). Designing web-based training. New York,  
NY: John Wiley & Sons, Inc.

- Huitt, E. (1999). Conation as an important factor of mind. Educational Psychology Interactive. Valdosta, GA: Valdosta State University. Retrieved October 7, 2004 at <http://chiron.valdosta.edu/whuitt/col/regsys/conation.html>
- Inspiration (2000). Inspiration Software Application. Portland, OR: Inspiration Software, Inc. <http://www.inspiration.com>
- Jarvis, P. (1987). Malcolm S. Knowles. In P. Jarvis (Ed.), Twentieth century thinkers in adult education (pp. 169-187). New York, NY: Croom Helm.
- Johnson, D. W. (2000). Reaching out: Interpersonal effectiveness and self actualization. Needham Heights, MA: Allyn and Bacon.
- Jonassen, D., Peck, K., & Wilson, B. (1999). Learning with technology: A constructivist perspective. Upper Saddle Rive, NJ: Merrill.
- Kassen, M., & Higgins, C. (1197). Meeting the technology challenge: Introducing teachers to language-learning technology. In M. Bush & R. Terry (Eds.), Technology-enhanced language learning (pp.263-285). Lincolnwood, IL: NTC/Contemporary Publishing Group.

- Knowles, M. (1913). The modern practice of adult education: From pedagogy to andragogy. Englewood Cliffs, N: Prentice Hall Regents.
- Knowles, M. (1980). The modern practice of adult education: From pedagogy to andragogy. Englewood Cliffs, NJ: Prentice Hall Regents.
- Knowles, M. (1984). Andragogy in action. San Francisco, CA: Jossey-Bass.
- Knowles, M.S. (1990). The adult learner: A neglected species. Houston, TX: Gulf Publications company.
- Knowles, M., Holton III, E., & Swanson, R. (1998). The adult learner: The definitive classic in adult education and human resource development. Houston, TX: Gulf Publishing Company.
- Kolbe, K. (1990). The conative connection. Reading, MA: Addison-Wesley Publishing Co. Retrieved Online October 10, 2004 at <http://www.kolbe.com>
- Kroll, L., & LaBosky, V. (1996). Practicing what we preach: Constructivism in a teacher education program. Action in Teacher Education, 18(2), 63-72.
- Kuhn, T. (1962). The structure of scientific revolutions. Chicago, IL: The University of Chicago Press.

- Kutner, M. (1992). Staff development for ABE and ESL teachers and volunteers (Report No. EDO-LE-92-04). National Center for ESL Literacy Education. Retrieved May 20, 2002 from ERIC Digest. Online at:[http://www.cal.org/ncle/DIGESTS/STAFF\\_DVLPT.HTML](http://www.cal.org/ncle/DIGESTS/STAFF_DVLPT.HTML)
- Levy, M. (1990). Towards a theory of CALL. CAELL Journal, 1(4), 5-7.
- Livingston, J. (1997). Metacognition: An overview. Retrieved online on October 7, 2004 at <http://www.gse.buffalo.edu/fas/shuell/cep564/Metacog.htm>
- Macy, M.D., (2000). Teaching ESL/EFL with the Internet.
- McKenzie, J. (1999). How teachers learn technology best. Bellingham, WA: FNO Press.
- Merrill, D. (1992). Constructivism and instructional design. In T. Duffy and D. Jonassen (Eds.), Constructivism and the technology of instruction. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Merrill, D., Li, Z., & Jones, M. (1990). Second generation instructional design (ID<sub>2</sub>). Educational Technology, 30(2), 7-14.
- Mirel, B. (1998). Applied constructivism for user documentation. Journal of Business & Technical communication, 12(1), 7-50.

- Orem, R. (1989). English as a second language. In S. Merriam & P. Cunningham (Eds.), Handbook of adult and continuing education (pp. 490-501). San Francisco, CA: Jossey-Bass Publishers.
- Ornstein, A. & Levine, D. (2000). Foundations of education (7<sup>th</sup> ed.). Boston, MA: Houghton Mifflin.
- Otto, S., & Pusack, J. (1996). Technological choices to meet the challenges. In B. Wing, (Ed.). Foreign languages for all: Challenges ad choices. Lincolnwoord, IL: National Textbook Company, 141-186.
- Outreach and Technical Assistance Network (OTAN). (2002). Online at <http://www.otan.dni.us>.
- Pash, D., & Mullane, D. (2000). Challenges, chances, and change: Strategies for the novice teacher. The CATESOL Journal, 12(1), 179-190.
- Phillips, M. (1985). Logical possibilities and classroom scenarios for the development of CALL. Computers in English Language Teaching: ELT Documents: 122. The British Council, London (Mimeo).
- Pogrow, S. (1996). HOTS: Helping low achievers in grades 4-7. Principal, 76(2), 34-35.

- Professional development: How technology can enhance teaching. Retrieved April 12, 2002, from California State University, San Bernardino, WebCT site:  
<http://wct.csusb.edu:9000/web-ct/courses/etec692robertson02/Readings/Factors.html>
- Pusack J., & Otto, S. (1997). Taking control of multimedia. In M. Bush & R. Terry (Eds.), Technology-enhanced language learning (pp.1-46). Lincolnwood, IL: NTC/Contemporary Publishing Group.
- Reed, D., & McNergney, R. (2000). Evaluating technology-based curriculum materials. Online at  
<http://www.ed.gov/databases/ERICDigest/ed449118.html>
- Reischmann, J. (2000). Welcome to andragogy.net.  
Online at <http://www.andragogy.net>
- Richardson, V. (1997). Constructivist teaching and teacher education: Theory and practice. In V. Richardson (Ed.), Constructivist teacher education: Building new understandings. Washington, DC: Falmer Press.
- Riel, M., & Becker, H. (2000, April). The beliefs, practices, and computer use of teacher leaders. Presentation, American Educational Research Association, New Orleans, LO.

- Rogers, A. (1986). Teaching adults. Philadelphia, PA: Open University Press.
- Rogers, J. (1989). Adults learning (2<sup>nd</sup> ed.). Philadelphia, PA: Open University Press.
- Sparks, D., & Hirsh, S. (1997). A new vision for staff development. Alexandria, VA: Association for Supervision and Curriculum Development.
- Spigner-Littles, D., & Anderson, C. (1999). Constructivism: A paradigm for older learners. Educational Gerontology, 25(3), 203-209.
- Spring, J. (2000). American education (9<sup>th</sup> ed.). Boston, MA: Mc Graw Hill.
- Starr, R. (1997). Delivering instruction on the world wide web: Overview and basic design principles. Educational Technology, 37(3), 714.
- State Department of Education (2000). Adult education in California - a proud tradition.
- Wlodkowski, R. (1995). Enhancing adult motivation to learn. San Francisco: Jossey-Bass.
- Wodtke, M. (1993). Mind over media: Creative thinking skills for electronic media. New York, NY: McGraw-Hill.
- Yoshida, K. (2001/2002). From the fish bowl to the open seas: Taking a step toward the real world of communication. TESOL Matters 12(1), 1,5.



Yoshida, K. (2001/2002). From the fish bowl to the open seas: Taking a step toward the real world of communication. TESOL Matters 12(1), 1,5.

Zehr, M. (1999). Reviewers play a critical role in market for digital content. Education Week, 19(4), 28.