2001

Constructing experiential learning in the language arts classroom

Terry Lee Hutton Marzell
CONSTRUCTING EXPERIENTIAL LEARNING

IN THE LANGUAGE ARTS CLASSROOM

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

Interdisciplinary Studies:

Integrative Studies

by

TerryLee Hutton Marzell

March 2001
CONSTRUCTING EXPERIENTIAL LEARNING
IN THE LANGUAGE ARTS CLASSROOM

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

by
TerryLee Hutton Marzell
March 2001
Approved by:

Dr. Samuel Crowell, First Reader
3/13/01
Date

Dr. Robert London, Second Reader
ABSTRACT

Recent research in educational practice has identified and emphasized the value of connecting school curriculum to the personal experiences of the students, but to be effective, learners must possess a collection of baseline experiences the teacher can connect new learnings to. If the baseline experiences are lacking, the instructor could choose to create a classroom experience upon which to build additional learnings. The problem then becomes how he or she can create those experiences, given limited resources of time, money, and space. This project details a specific blueprint which can be used for the design of experiential learning lessons, describes specific categories of experiential learning activities, and explores the scientific research which explains the value of these activities.
### TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ABSTRACT</td>
<td>iii</td>
</tr>
<tr>
<td></td>
<td>CHAPTER ONE: THE NEED TO CREATE CLASSROOM EXPERIENCES</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CHAPTER TWO: A REVIEW OF THE LITERATURE</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>CHAPTER THREE: EXPERIENTIAL EDUCATION IN PRACTICE</td>
<td>46</td>
</tr>
<tr>
<td></td>
<td>CHAPTER FOUR: COMPONENTS OF LESSON DESIGN</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>Identifying the Specific Area of Emphasis</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>Determining Learning Objectives</td>
<td>57</td>
</tr>
<tr>
<td></td>
<td>Tapping Into Prior Knowledge</td>
<td>57</td>
</tr>
<tr>
<td></td>
<td>Selecting Reading Material</td>
<td>58</td>
</tr>
<tr>
<td></td>
<td>Designing an Experiential Learning Strategy</td>
<td>59</td>
</tr>
<tr>
<td></td>
<td>Incorporating Thoughtful Discussion</td>
<td>59</td>
</tr>
<tr>
<td></td>
<td>Planning for Reflection</td>
<td>61</td>
</tr>
<tr>
<td></td>
<td>Devising an Assessment</td>
<td>63</td>
</tr>
<tr>
<td></td>
<td>CHAPTER FIVE: SPECIFIC INSTRUCTIONAL STRATEGIES</td>
<td>67</td>
</tr>
<tr>
<td></td>
<td>Dramatizations</td>
<td>67</td>
</tr>
<tr>
<td></td>
<td>Total Physical Response</td>
<td>68</td>
</tr>
<tr>
<td></td>
<td>Simulations</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>Creative Elaboration</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>Exhibitions</td>
<td>72</td>
</tr>
</tbody>
</table>
Problem-Solving .............................................. 73
Real-World Projects ......................................... 76
CHAPTER SIX: IMPLICATIONS AND CONCLUSIONS ....... 77
CHAPTER SEVEN: EVALUATION ............................ 82
APPENDIX: SAMPLE LESSONS .............................. 88
BIBLIOGRAPHY ............................................... 108
CHAPTER ONE

THE NEED TO CREATE CLASSROOM EXPERIENCES

One day, as I was working in the teachers’ lounge at the senior high school where I am employed, one of my colleagues stomped into the room in obvious indignation, threw a collection of student drawings on the work table, and collapsed into a chair across the table from me. Obviously overwhelmed, she slumped in her seat and buried her face in her hands. Wow, I thought to myself, whatever event had just transpired in her classroom must have been extremely frustrating for her.

“My students,” came the muffled exasperation from the other side of her hands, “are so lazy.” And without waiting for my response she explained, “We’re reading Harper Lee’s *To Kill a Mockingbird*, and I asked them to draw a picture of the home the Ewell family lives in. You know, the characters who live in the house at the edge of the city dump.” I knew. She uncovered her face and rolled her eyes Heavenward. “Well,” she announced with annoyance, “Look at these drawings! Just look at them! Disgraceful!”
Those kids didn’t want to put out the effort to draw the Ewell’s dump, so they just drew pictures of a shack beside a dumpster. A dumpster! You know, like the kind you find in apartment complexes!” Clearly incensed, she threw her hands up in the air and declared, “What a shameful waste of good art supplies.”

I examined the drawings she had thrown on the table. There they were, shacks and dumpsters, just like she said, on page after page. Colored-penciled or magic-markered cardboard shelters propped like lean-to’s next to metallic-gray dumpsters overflowing with garbage and trash. And almost every picture showed a little row of bright-red flowers sprouting from the asphalt cracks or in a nearby planting bed, like the flowers Mayella Ewell had planted in front of her junkyard home. They hadn’t missed that all-important detail when they’d read that chapter.

I looked up from the pictures to her irate countenance. “But how many of your students have ever actually been to the dump?” I asked her. “Maybe, for these students, the dumpster at the apartment complex is the sum
total of their experience of 'dump-ness.'” A look of surprise spread over her face. “These pictures aren’t the products of lazy students,” I gently asserted, “these drawings are the best visual representation that your kids could come up with, given their own experience and understanding of dump-ness, which is different than that described in Harper Lee’s book.” After re-examining the drawings, my colleague conceded this could be true.

Good teachers recognize how crucial it is to connect curriculum to the personal experiences of students, but the learner must possess a hook of baseline experiences the teacher can hang new learnings onto. Otherwise, the new concepts fall to the floor and lie there, inert.

For example, I was once teaching a group of students to format disks to be used on computers. I compared a formatted disk to a vinyl record. "A vinyl record is separated into sections,” I pointed out, “and each section represents one song. When you look at the record, you can see where each new song begins. When you format a disk, you are creating sections on the disk that are like the
sections on a vinyl record." It's a simple analogy, and one that makes sense, if you know what a vinyl record is. But my students, whose exposure to recorded music is comprised of cassettes and CD's, didn't have a clue what I was talking about. Because the students did not possess a baseline experience with vinyl records, I had no hook to hang my disk-formatting analogy onto, and so the concept I wanted to communicate got dropped.

When a missed connection like this occurs, a teacher can do one of two things. The first would be to create a new analogy, based on some experience the students do possess. Look for another hook, so to speak. For example, in teaching my students about formatting a disk, I could just have easily compared the unformatted disk to a closet without shelves, and that formatting the disk is like building shelves inside the closet. Formatting creates sections on the disk upon which information can be stored. It's far more convenient to organize material on shelves than it is to just open up the closet door and throw stuff in. The same is true for information stored on a computer.
disk. Since most students possess an experience of closets and shelves, they can connect to this analogy.

A second strategy would be to enlarge the students' experiences to include "vinyl-record-ness." I still possess a stack of vinyl records and a record player in my home. Relatively easily I could transport these items to the classroom for a demonstration, thereby creating for the students the experience of "vinyl record-ness" and "record-player-ness" ---the necessary hook upon which to hang my original disk-formatting analogy.

Constructing experiences for the purpose of creating hooks is highly desirable, albeit not always feasible, and should be designed with great thought and care. I would hardly recommend to my colleague that she organize a field trip to the dump to expand her students' awareness of "dump-ness." Rather, an excursion which would produce experiences much more crucial to the understanding of the novel To Kill a Mockingbird would be an expedition to a small town in Alabama during the late 1940's, when Jim Crow laws were at their height. But a field trip like that
wouldn't be feasible, either, since no District Office that I know of possesses unlimited travel funds and a time machine.

Unquestionably, any piece of literature used in the classroom potentially could span time eons into the past or the future, expand to global or interstellar settings, encompass a vast array of diverse cultures, real or imagined, and explore a myriad of sophisticated concepts or philosophies. Naturally, given unlimited parameters such as these, creating some hooks is going to be crucial to students' understanding, but to do so is going to be very difficult. So the essential question is, when the teacher has determined that the best way to demonstrate a chosen concept is to construct an experience to create a hook, how can he or she create those experiences, given the limited resources of time, money, and space in the classroom? The goal of this curriculum project is to produce some ideas and usable lesson plans in answer to this question.
In this thesis, Chapters Two to Five present a review of the literature related to experiential education. Chapter Two furnishes a definition of the term and the scientific research which justifies this instructional approach. Chapter Three extends the literature review by discussing some examples of successful experiential learning activities utilized in current practice. Chapter Four details a specific blueprint which can be used for the design of experiential learning lessons; this blueprint is a composite of ideas gleaned from the literature review. Chapter Five describes specific categories of experiential learning activities which were mentioned in the literature readings, and scientific research which explains the value of the activities. Chapter Six discusses the implications and conclusions derived from the review of the literature. Chapter Seven presents the feedback offered by the readers of this paper. Finally, the appendix introduces some sample experiential learning lessons which follow the blueprint for lesson design outlined in Chapter Four and show the
categories of the specific learning activities in application.
CHAPTER TWO

A REVIEW OF THE LITERATURE

A review of the literature related to experiences and learning reveals a considerable discussion on the importance of connecting what the teacher is doing in the classroom to the personal experiences the learner already possesses. This is a concept I embrace wholeheartedly. But the scope of this thesis goes beyond that idea. It includes the concept that the deliberate and careful orchestration of learning experiences is a necessary and vital element of teaching, because such learning experiences serve as the essential and indispensable building blocks—or hooks—for additional knowledge.

Such an orchestration of experience is what has been termed experiential learning or experiential education. While these terms are often used to label formal programs such as on-the-job training programs, internships, practicum, or service learning, the terms can also be extended to include less formal educational experiences or projects, as long as they can be reflected upon and
evaluated as a learning strategy (Washbourn, 1996, p. 12-13). Whether formal or informal, the goal of experiential education is designed to provide students ample opportunities to learn by doing, rather than to ingest vicariously the knowledge of others. In experiential education, "Students make discoveries and experiment with knowledge themselves instead of hearing or reading about the experiences of others" (Kraft and Sakofs, 1988). Teachers orchestrate experiences that "take information off the page and the chalkboard and bring it to life in the minds of students" (Caine and Caine, 1994, p. 115). "Students also reflect on their experiences, thus developing new skills, new attitudes, and new theories or ways of thinking" (Kraft and Sakofs, 1988).

Understanding the true value of experiential education requires a redefinition of knowledge. Up until recently, learning has been defined as the memorization of facts, formulas, procedures, theorems, and other specific skills. "Traditionally, learning has been thought to be a 'mimetic' activity, a process that involves students
repeating, or miming, newly presented information... in reports or on quizzes and tests" (Brooks and Brooks, 1993, p. 15). Our culture is still heavily influenced by this epistemology, which historically dates all the way back to Plato and his philosophy of learning. Plato said that true knowledge means the mastery and memorization of certain fixed ideas, formulas, and procedures---what he calls "eternal forms" (Seeman, 1988, p. 28). Traditional, Plato-inspired learning exercises generally foster the acquisition of isolated and unrelated facts and skills, but they leave students unable to assemble them into any kind of coherent structure. Caine and Caine (1994) say such learning "...is like looking at the moon and believing that we have understood the solar system" (p. 4). Students may successfully memorize bits and pieces of information, but to focus on the parts without connecting them in some way to the whole leaves students ill-equipped to genuinely comprehend the "big picture."

Furthermore, an over-reliance on mimetic learning styles often renders students incapable of transferring
knowledge from one situation to another, says Howard Gardner (Brandt, 1993, p. 4). He expresses concern for students who can demonstrate an ability to function well on pencil and paper tests, but who do not demonstrate a genuine understanding of the concepts being tested sufficiently enough to transfer them to new situations. Gardner says, “Most schools have fallen into a pattern of giving kids exercises and drills that result in their getting answers on tests that look like understanding. It’s what I call the ‘correct answer compromise’; students read a text, they take a test, and everybody agrees that if they say a certain thing it’ll be counted as understanding. But the findings of cognitive research over the past 20-30 years are really quite compelling: students do not understand, in the most basic sense of that term. That is, they lack the capacity to take knowledge learned in one setting and apply it appropriately in a different setting” (Brandt, 1993, p. 4).

I have personally observed this in my classroom. On one occasion, my sophomore Language Arts students were
watching the video Fiddler on the Roof. This was an expansion of the play “Tevya and the First Daughter” which we had read from their textbook, and was part of a thematic unit on the relationships between parents and children. In the film, Tevya’s daughter Tzeitle announces that she and her boyfriend, Mottle, have given each other their pledge to marry. Tevya says, “They’ve given each other their pledge? Unheard of! Unthinkable!” and repeatedly expresses his shocked disapproval. On watching this, several of my students turned to me and asked, “What’s a pledge?” I was amazed that they didn’t know the meaning of this simple, one-syllable word, especially since they recite The Pledge of Allegiance every day, and have done so for many years. Obviously, they could not connect the meaning of this pivotal word which they utter daily to the same word being used in the video. The Pledge of Allegiance constituted for them merely a paragraph of rote memorization; it contained no meaning. If one of the signposts of true learning is the ability to transfer information or skills from one situation to another
appropriately, then it seems clear that true learning cannot be achieved solely by rote memorization of facts in isolation.

Furthermore, an over-reliance on traditional mimetic teaching strategies for prolonged periods of time may actually inhibit students' future capacities for learning, asserts Harvard Professor of Psychology Ellen J. Langer (1989). She says that when teachers present a set of fixed facts and information, in a one-track pursuit of one predetermined outcome, we are training students to view things in only one way. We are fostering inflexibility. Langer contends that the style of education that presents things single-mindedly generally presents things unconditionally as well. "This approach encourages mindlessness. If something is presented as an accepted truth, alternative ways of thinking do not even come up for consideration. Such a single-minded way of viewing the world can generalize to virtually everything we do" (Langer, 1989, p. 35). Under these conditions, people may become fixed in their ways of thinking, and neglect to or
refuse to consider alternatives. To promote this myopic mindset when we know better is a grave disservice to our students.

Single-minded thinking may also be a threat to survival. Sometimes in crisis situations, survival depends on an ability to consider alternatives. The 1995 movie Apollo 13, which is based on a true story, demonstrates an excellent example of this. In the movie, three astronauts on a mission to the moon experience malfunctioning equipment in their space shuttle. To compensate, they shut down all systems on their command module and relocated their temporary living quarters to the adjoining lunar excursion module (LEM). Before long, dangerous levels of carbon dioxide on the LEM were endangering the lives of the astronauts. Carbon dioxide filters designed for the LEM were intended to service two astronauts for only one and a half days, instead of three astronauts for four days. Attempts to use the command module filters in the LEM failed when it was discovered the command module filters were square and the LEM filters were round. The
task was to make a square filter fit a round aperture, using only a pile of leftover spacecraft supplies. “I don’t care what it was designed to do,” declares one character, “I care about what it can do.” The survival of the three men on board depended on the ability to consider alternatives; inflexibility could have proved deadly. Fortunately, a workable solution was found and the astronauts’ lives were saved, in the video and in real life.

To be sure, this is an extreme example, and hopefully none of our students will ever find themselves in such a life-threatening situation. However, in life everyone must frequently face and overcome problems of varying degrees of difficulty––problem-solving is a part of our every day existence, in the home, on the job, in social contexts, and in a crisis––and an ability to consider alternatives is an essential component of problem-solving.

Additionally, an over-reliance on mimetic activity underestimates the vast and varied capacities of the brain. Mimetic activity is but one of the many
sophisticated processes of which the human brain is capable. "Almost ignored is the immense capacity of the brain to deal with and instantly remember the moment-to-moment events that constitute life experience," (Caine and Caine, 1994, p. 4). Traditional teaching techniques do not effectively capitalize upon the brain's innate predilection to search for how things make sense, to scan for common patterns and relationships, to integrate sensory input, or to extract meaning from experience. To use the brain's inherent capacities to the greatest advantage, teaching strategies must focus on finding the best ways to capitalize on these brain functions. Teachers must use strategies that do more than emphasize mimetic activity, they must orchestrate educational experiences that mine students' prior knowledge and experiences, and effectively integrate these with meaningful new learning experiences. Teachers must "help learners to internalize and reshape, or transform, new information," (Brooks and Brooks, 1993, p. 15). "Transformation occurs through the creation of new understandings. Deep understanding
occurs when the presence of new information prompts the emergence or enhancement of cognitive structures that enable us to rethink prior ideas” (Brooks and Brooks, 1993, p. 15).

It is clearly evident when students have not competently achieved this transformation, this deep understanding. I have heard many of my fellow Language Arts teachers lament that although students have been able to identify the correct answer on a worksheet presenting grammar skills in isolation, those same students’ writing often does not reflect an internalization of those grammar rules. Through trial and error, many teachers have come to realize that supervised revision of written work using a tutorial approach is a much more powerful strategy for teaching grammar than worksheets. This is because not only is the content of students’ writing apt to be more meaningful to the learner than “drill-and-kill” worksheets, but also because the supervised revision approach allows students to integrate the ideas they are trying to express with the grammar rules necessary for
effective communication. Simply stated, supervised revision is better at fostering the integration of the old and the new. Many teachers of other disciplines have reported that this phenomenon is evident in their content areas, too. For most students, reading an account of a controversial lawsuit is not as meaningful as conducting a mock trial. Studying a diagram of the anatomy of a frog is not as meaningful as dissecting a frog. Reading a driver's education manual is not as meaningful as practice behind the wheel. And so on.

Human beings are not only capable of the transformation I am describing, but they need and they crave opportunities to achieve this. Most learning is practical, purposeful, and self-directed. We learn about things that interest us, and "...generally speaking, things interest us for one of two reasons. The first reason is functional and pragmatic. We learn about things we believe we need to know in order to achieve important goals like staying alive, attracting a mate, staving off enemies or earning respect. The second reason is more
personal. We learn about those things that build on what we already know and that contribute to our growing sense of self. In both cases learning is supported by and implies a cognitive system that is meaning based and meaning driven" (Curley and Whittaker, 1996, p. 15).

Experiential education is significant, effective, and desirable because it is an approach that addresses the learner’s conscious desire to create meaning. Most importantly, it is an approach that acknowledges the human brain’s rules for meaningful learning and emphasizes the importance of orchestrating learning experiences that comply with those rules.

According to Caine and Caine (1994), to orchestrate meaningful learning experiences, it is important to distinguish between the two types of knowledge: surface knowledge and meaningful knowledge. They define surface knowledge as the memorization of facts and procedures—the mimetic activity described above—and they admit that it is important to do a certain amount of this. More important, though, is what they call meaningful knowledge,
defined as anything that makes sense to the learner (Caine and Caine, 1994, p. 7). As mentioned above, meaningful knowledge involves such mental functions as scanning for common patterns and relationships, integrating sensory input, and extracting significance from experience. Opportunities for constructing meaningful knowledge must be the major thrust in curriculum design, because such designs encourage the brain to use and develop its innate mental functions. "...Understanding a subject results from perceiving relationships. The brain is designed as a pattern detector. Our function as educators is to provide students with the sorts of experiences that enable them to perceive the patterns" (Caine and Caine, 1994, p. 7).

Due to recent extensive research, neurologists have been able to discover some understandings about how the brain perceives and records such interconnected patterns. As explained by Caine and Caine (1994), deep meaning results from the interaction of two networking cognitive systems housed within the brain: the locale system and the taxon system. The locale system records and preserves a
minute-by-minute record of physiological experience. The locale system must cope with continuous and instantaneous shifts in context and must simultaneously register the context in its entirety. The taxon system holds the constituent parts from which the meaning of the experience is constructed. The locale system makes use of the principles of the taxon system, and both systems work together to analyze experience and generate meaning (p. 47).

Think of it this way. If you are watching a baseball game on television, chances are the game is being narrated by two announcers: the first is known as the play-by-play man, and the second is usually called the “color” commentator. As the players pitch, bat, run, and catch, the play-by-play man is instantaneously providing a clear and accurate description of each event. He tells us if the pitch is a fast ball or a curve ball, if the pitch is a ball or a strike, if the hit is a fair ball or a foul. The color commentator, meanwhile, is providing background information on the players, calling up statistics such as
batting averages and number of home runs hit this season, 
reporting on the team’s current standing in the league, 
and updating us on the standings of the other teams in the 
league. With the coordinated assistance of both reporters, 
the baseball “experience” is being simultaneously 
recorded, interpreted, and analyzed. The locale and the 
taxon systems function as a coordinated team in very much 
the same way. The locale system functions as the play-by-
play reporter, and the taxon system serves as the “color” 
commentator. With the two systems working together, our 
moment-to-moment life experiences are being simultaneously 
recorded, interpreted, and analyzed. Just as the play-by-
play man and the color commentator work to construct 
meaning out of the game, so, too, do the locale system and 
the taxon system work to construct meaning out of life 
experience.

According to Caine and Caine (1994), one of the most 
important functions of the locale system is “indexing,” 
which is the ability to instantly call up various 
fragments of information related to a particular subject
stored throughout the taxon system. Indexing will be swift and efficient if there are many strong connections (p. 47). Experiential education is an excellent way to form strong and multiple connections. Lynnell Hancock (1996, p. 59) describes an example of this: "Angles and dimensions are better understood if children chuck their work sheets and build a complex model to scale. The smell of the glue enters memory through one sensory system, the touch of the wood blocks another, the sight of the finished model still another. The brain then creates a multidimensional mental model of the experience---one easier to retrieve" (p. 59). "But," caution Caine and Caine (1994), "if the strength and complexity of the connections is inadequate, information can only be called up in limited ways, and in ways that are very inflexible" (p. 47). This explains, at the physiological level, what is happening when students have memorized a formula or a rule, but cannot put it into application.

"A preliminary definition of meaningful learning, therefore, refers to storage of items that have so many
connections, and are of such quality, that they can be accessed appropriately in unexpected contexts," (Caine and Caine, 1994, p. 47). One of our major goals as teachers, then, should be to strengthen the number and complexity of these neurological connections. Experiential education activities which simultaneously engage the student's senses, cognitive functions, physiology, and emotions can achieve this goal.

While indexing allows students to rapidly call up various fragments of stored sensory data, cognitively process that data, and access emotional responses relating to that data, the recalled fragments will of course differ from student to student. No two individuals, not even identical twins, possess the same exact set of life experiences, thought processes, or emotional responses. Therefore, the number, strength, and complexity of indexed fragments cannot be predicted, nor can the results of the learning experience be controlled. This creates an ambiguity which is generally not appreciated or tolerated by proponents of the traditional Platonic epistemology.
Critics prefer that educational practitioners restrict themselves to scholastic endeavors which result in only one right answer, such as 2+2=4, and they are generally suspicious of educational practices that are more open-ended, that allow for more than one possible answer, or that possess acceptable responses that are affective or subjective.

This very ambiguity is a pivotal feature of experiential education, precisely because it enables students to construct their own meaning from orchestrated experiences. This approach acknowledges that each student enters the classroom with his or her own individual ideas, beliefs, opinions, personal learning styles, prior experiences, and socioeconomic backgrounds; because of this, no student will respond to a classroom experience in a predictable way, and no two students will respond to content in exactly the same way. "Individuals create or construct their own new understandings or knowledge through the interaction of what they already know and believe and the ideas, events, and activities with which
they come in contact" (Abdal-Haqq, 1998, p. 1). Therefore, “Within any experience we have to accept that there are alternative interpretations available concerning the physical characteristics of the actual situation, and the perceptions of other people who might be involved in that learning experience. Our world is an ambiguous one in which there are few right or wrong answers” (Short and Burke, 1991, p. 17).

Given that students' prior knowledge influences their individual interpretations of new learning experiences, it stands to reason that the reverse would also be true. "What we know, believe, and value colors what we experience. Conversely, under the right conditions, what we experience modifies what we know, believe and value. There is a constant interaction between memory and experience that holds an important lesson for teachers" (Curley and Whittaker, 1996, p. 15). They assert that as teachers, our goal is to introduce students to new ideas and experiences, to influence the ways in which they think about and understand their world. In order to do this.
effectively, teachers must tap into the existing world students have already constructed. If teachers present ideas and information disconnected from that world, the chance of fostering meaningful learning is substantially reduced. "Effective teachers provide powerful learning opportunities for their students by creating a bridge between what their students know and believe and the new ways of thinking that their disciplines have to offer," assert Curley and Whittaker (1996, p. 15). Short and Burke (1991) agree. They say, "The knowledge and understanding that students already have about life come from the social and cultural communities in which they live and learn both inside and outside of school. These understandings form the platform upon which they currently stand and from which they will launch themselves into the future. The curriculum then must always be connected to as well as go forward from students' life experiences" (p. 34-35).

As for the affective domain, emotional responses are indispensable to the learning process. As teachers, we must validate students' feelings just as much as we
validate their individual ideas, beliefs, opinions, personal learning styles, prior experiences, and socioeconomic backgrounds. Recognizing the importance of emotions not only values the learner, but also values the learning process. “We must consider not only the truth-value of propositions but the appropriateness of feelings as well,” (Seeman, 1988, p. 29). “The student’s subjective comments may not be a digression but may instead contain some important truths about the issue at hand,” (Seeman, 1988, p. 29). Seeman asserts that since feelings are often critical to understanding and functioning successfully in the workplace---and I would add the classroom, the home, in fact, everywhere in the world the student goes---some knowledge may be emotional, nonverbal, even nonlogical (Seeman, 1988, p. 29). This knowledge matters. Imagine a life without emotions; such a life would be quite colorless, stale, sterile. Learning experiences devoid of emotional significance would be the same. Emotions give a sense vitality and authenticity to everything we do and
think. Feelings, far from being irrelevant, contribute to and nourish the learning process.

There is empirical evidence to support the inclusion of the affective domains in curriculum design. Scientific research reveals that within the brain, the primary centers of emotion are housed in the limbic system. The limbic system includes the amygdala, an almond-shaped ganglion adjoining the temporal lobe which is important in the association of events with emotion (Caine and Caine, 1994, p. 62). The amygdala is in charge of all our emotional memories. "Whenever information is received by the brain, the amygdala filters it for emotional content. If the perception has some emotional content, then the amygdala processes that memory" (Sprenger, 1998).

The limbic system also includes the hippocampus, a portion of the cerebral cortex which deals with locale memory (Caine and Caine, 1994, p. 62). The hippocampus does not function as a repository of the memories themselves, but rather as a sorter and cataloger of memories (Sprenger, 1998). More specifically, "The
hippocampus appears to receive internally generated information from the septal and other areas and externally generated information from sensory systems projecting to nearby transitional cortical areas" (Caine and Caine, 1994, p. 62).

Simply stated, the limbic system governs both the domains of emotion and memory, and this suggests that, in a neurological way, concepts and emotions are inextricably interconnected. "This means more than that they just influence each other. It means that none of the ingredients that we deal with in education, such as concepts and emotions and behaviors, is separate. They influence and shape each other" (Caine and Caine, 1994, p. 63).

This research, then, acknowledges the importance of the affective qualities of experiential learning, for it indicates that for a student to truly learn a concept, all of the elements that give the concept meaning must be incorporated into the learning experience. "People must have a way to relate to the subject in terms of what is
personally important, and this means acknowledging both the emotional impact and their deeply held needs and drives. Our emotions are integral to learning. When we ignore the emotional components of any subject we teach, we deprive students of meaningfulness" (Caine and Caine, 1994, p. 64).

Although brain research supports the effectiveness of experiential education, there is some opposition to this methodology within the teaching community. Shifting to brain-based teaching methods challenges educators to re-evaluate and restructure their repertoire of teaching strategies. Remember that traditional teaching practices are based on the Platonic epistemology, with mimetic exercises the predominant activity. In many cases shifting to experiential learning strategies requires teachers to use nontraditional teaching methods with which they may be unfamiliar or uncomfortable. But given the redefinition of knowledge discussed above, this re-evaluation and restructuring is absolutely essential if the endeavor is to serve as a catalyst for true learning.
According to the philosophy of experiential education, students are more than just empty receptacles into which the teacher pours predigested facts or formulas. Students are more than just regurgitators of information. The recall of facts and formulas should not be the end-product, but rather the means to an end. Therefore, students must be encouraged to couple facts or formulas with past experience and orchestrated experience in order that they may do their own digesting and assimilating. The orchestrated experience must build on past experience and at the same time generate an increased awareness in the minds of the students, and furthermore it must be perceived, comprehended, and interpreted by the student himself, with careful consideration given also to its affective significance. Gardner agrees. In his interview with Brandt, he says, "When you’ve encountered an idea in your own way and brought your own thinking to bear, the idea becomes much more a part of you. It isn’t something that you read about from 3 o’clock to 3:15 and
then forget; it's a part of your own experience" (Brandt, 1993, p. 6). This is the essence of genuine learning.

To accomplish this, the teacher must be adept at sifting through students' prior knowledge to find relevant experiences to use as building blocks, and then successfully build upon that prior knowledge with new, purposefully designed orchestrated experiences. The teacher must be attentive, perceptive, sensitive, and responsive to students' updated understandings. In other words, the teacher must follow the class as well as lead it. This is especially important because each group of students possesses different experiences, and therefore requires different orchestrated experiences than any other group the teacher has worked with. "One can certainly understand the resistance to teaching this way. To follow the class, to have to take notes, to have to formulate teaching techniques almost on the spot, is much more difficult than the control an instructor usually acquires by making the class follow him" (Seeman, 1988, p. 30).

Nevertheless, teachers who wish to cultivate genuine
learning must be willing to embrace teaching strategies that are consistent with that goal.

Furthermore, although designing curriculum and teaching for meaningful knowledge is clearly preferable, educators attempting to do so face a major dilemma. This dilemma is that almost all testing and evaluation that occurs in schools currently is intended to assess the acquisition of surface knowledge. I’ve already mentioned that Gardner’s objection to the “correct answer compromise” is that such tests do not measure true learning, because of the student’s inability to transfer knowledge to new situations (Brandt, 1993, p. 4). What Gardner is suggesting, and what other experts in the field have expressed outright, is that such tests do not measure meaningful knowledge. Students may be able to score high on tests and evaluations by temporarily memorizing and recalling isolated facts and bits of information without actually achieving deep-level understanding, without achieving the cognitive transformation characteristic of meaningful knowledge. Fernlund (1995) points out that
"...new knowledge can be memorized by students but it is not integrated into their conceptual frameworks. If the teacher gives the test quickly enough, test results may give the appearance that learning has taken place when, in fact, there has been no integration of the old and new, and the new is quickly forgotten" (p. 47).

Testing and evaluation instruments currently being used generally do not require students to demonstrate such integration. There is an over-emphasis on testing for surface knowledge and an almost total absence of testing for meaningful knowledge. It stands to reason that if teachers are going to shift from teaching techniques that focus on surface knowledge to techniques that engender meaningful knowledge, similar shifts are necessary in at least some of the testing and evaluation instruments to be used. "Testing and evaluation will have to accommodate creativity and open-endedness, as well as measure requisite and specifiable performance" (Caine and Caine, 1994, p. 8).
Critics of experiential education complain that it is difficult to evaluate learning when the outcomes can be so personal and so varied; they point out the difficulty in assessing the affective domain; they doubt an effective measurement can be devised to appraise open-ended responses. Competent assessment of experiential education can be done, but it cannot be done with the multiple choice test format, a traditional assessment technique currently heavily favored in schools. "Tests, ...particularly multiple-choice tests, are structured to determine whether students know information related to a particular body of knowledge---usually a curriculum guide or syllabus. The focus is outward, not inward, on material, not personal constructions... Authentic activities (tasks and problems already relevant or of emerging relevance to students) also relate to a particular body of knowledge, but rather than structuring assessment around specific bits of information, they invite students to exhibit what they have internalized and learned through application" (Brooks and Brooks, 1993,
p. 96-97). Clearly, then, updated assessment tools which are more accurate and authentic than traditional methods must be devised to measure the kind of learning that results from experiential learning activities.

Newmann and Wehlage (1993) have a plan for this. They outline three criteria for measuring authentic instruction—a term they use to distinguish between achievement that is significant and meaningful and that which is trivial and useless—and these criteria can be extended to cover experiential education. The first criteria is that students must construct meaning and produce knowledge; the second criteria is that students must use disciplined inquiry to construct meaning; and the third criteria is that students must aim their work "toward production of discourse, products, and performances that have value or meaning beyond success in school" (p. 8).

This criteria can be applied to an example of experiential instruction that I have seen a colleague use in her sophomore classroom. The lesson was related to an
excerpt from Thor Heyerdahl's autobiography Kon-Tiki which described part of this Norwegian explorer's adventures during an exploratory voyage across the Pacific Ocean on a primitively-constructed raft. After they read the selection, the students were divided into pairs. Each pair was asked to draw a diagram of a raft. Using such things as popsicle sticks, bamboo shish-ka-bob skewers, string, and linen fabric, the students were asked to build a model version of their diagramed raft. It took one day for the students to draw their diagrams and about three days for them to build their rafts. Then the teacher brought in a small, plastic swimming pool which her students set up and filled with water outside the classroom. The teacher asked her students to test their rafts for "seaworthiness." In other words, does it float? Finally, the students conducted boat races to see which rafts could reach the other side of the pool first. To propel the rafts, students created tidal waves in the pools and fanned the sails to simulate wind. She followed these activities with two assessment assignments. The first was a reflective
writing assignment, in which the students recorded what they had learned from the activity. The second was an original newspaper article or photo essay about the activity. The class selected the newspaper article and the photo essay which they felt were the best, and the teacher submitted them to the school newspaper and the local press to consider for publication.

This activity meets the three criteria of authentic assessment. The students produced knowledge of how to design and construct a raft, even if it was on a small scale; students used disciplined inquiry to construct meaning by testing the rafts to see if they would float and by propelling the rafts to see if they could successfully traverse an expanse of water; and the students aimed their work toward the production of a product that had value beyond success in school, that is, for publication in the newspaper.

But the teacher must be careful when organizing experiences of this kind. There must be a clear purpose for the orchestrated experience. "The truly authentic
teacher's classroom isn't distinguished by clever gimmicks or cute projects. Instead, it's distinguished in differences in the approach taken to learning" (Cronin, 1996, p. 74). Reading and discussing the concepts of boat-building and sea-worthiness is a good start, but it was only through the orchestrated experience organized by the teacher that students were able to build on their prior knowledge of rafts by actually designing and constructing a raft. It was only through the experience of testing their rafts for viability and durability in simulated oceanic conditions that students were able to learn an appreciation for seaworthiness. The orchestrated experience built on prior knowledge and extended that knowledge to include Heyerdahl's unique experiment.

Cronin (1996) offers further criteria for assessing authentic learning. He says the experience is meaningful if "students are motivated, they're doing good work, their work is judged by real-world standards, and they're working on real-world problems that don't always have just one right answer" (p. 74). In the Kon-Tiki example,
students enjoyed the activity and were motivated, as reported by the teacher. They did good work, in the sense that they made a plan, a diagram, and completed the building of their raft according to their plan. Real-world standards were satisfied in the respect that in the real world we expect a raft to float. If it does, it has met the real-world standard. And there is more than one way to construct a raft that floats, so there was room for more than one right answer. Furthermore, in preparing their newspaper articles and photo essays, and in judging which products were to be submitted to the press, the students used real-world standards for publication.

Science teachers Sandra Schnitzer and Bob Legge from Aurora, Colorado, offer additional strategies for assessment. Schnitzer (1993) describes the frustration she experienced when her students seemed unable to use previous learning to new situations, a phenomena I’ve discussed earlier in this paper. Specifically, she asked herself, "Why couldn’t they do tasks that required them to
see relationships, compare, or make decisions?" (Schnitzer, 1993, p. 32).

She says she realized one day that she was not teaching them "the thinking processes that they needed in order to use the knowledge they had acquired" (Schnitzer, 1993, p. 32). She began to work with The Mid-Continent Regional Educational Laboratory (McRel) assessment model, which identifies fourteen complex thinking processes: comparison, classification, structural analysis, supported induction, supported deduction, error analysis, constructing support, extending, decision making, investigation, systems analysis, problem solving, experimental inquiry, and invention (Schnitzer, 1993, p. 32).

She incorporated one of the complex thinking processes, decision making, into a lesson she designed. She says she and her partner, Bob Legge, attempted to design a task that would allow students to demonstrate their biotechnical knowledge and simultaneously incorporate the complex thinking process of decision
making. She reported that, "Instead of just collecting and sharing factual information with their classmates, students needed to synthesize what they had learned, integrate it into the form of a decision, and then justify that decision to others" (Schnitzer, 1993, p. 35).

Schnitzer and Legge used the McRel assessment model to evaluate their students, but aspects of the assignment meet Cronin’s assessment criteria as well.

Examples of assessments for experiential learning activities include: projects which demonstrate application of concepts, formulas, theories, etc.; simulations; exhibitions; performances; reflective essays; creating a mural, a dance, or a rap to re-present information; or showing, explaining, or teaching the concept or skill to another person. Any assessment tool which allows students to demonstrate how they have assimilated presented information, and how they can use these new learnings in innovative and creative ways is valid.

Clearly, then, when the unique way in which the brain works is taken into consideration, the value of
experiential education is strongly supported. Many astute and talented educators in various subject areas are already using experiential learning in their classrooms in some very exciting and productive ways. The next chapter of this paper will describe some of them.
Across the disciplines, examples of teachers employing experiential education techniques are evident. The following are but a few examples.

One of the most intensive uses of experiential learning is evident in the Foxfire approach to teaching, based on educational principles expressed by philosopher, author, school administrator, and curriculum reformer John Dewey. Dewey was the founder and administrator of a Laboratory School under the auspices of the University of Chicago from 1896 to 1904, and formed much of his educational philosophy during those years there. He started with an idea for a curriculum that built upon young children's natural talents for imagination and their innate impulses to construct things, to explore, and to communicate with others about what they have found (Tanner, 1999, p. 63). One of Dewey's most devoutly-held precepts was that the student should be placed at the center of learning experiences, with the teacher...
functioning as the learner’s facilitator and guide, even a co-learner, in the learning process. Over half a century ago, he asserted that “all genuine education comes through experience” (Dewey, as quoted by Starnes, 1999, p. 1).

This precept, and many other principles espoused by Dewey, have been incorporated into the Foxfire program. Originally, the Foxfire program was established to teach basic English skills to high school freshmen in Appalachian Georgia. To this end, the students were asked to produce first a magazine, and later a series of books, recording Appalachian life, folk ways, and traditions. It wasn’t until twenty years later that the teaching approach, the philosophy and practices, which were used in the program became highlighted and praised by education reformers (Teets and Starnes, 1996, p. 31). The effectiveness of the Foxfire approach has been so widely recognized that in 1998, the Foxfire program was recognized as one of the models for the federal Comprehensive School Reform Demonstration program, Northwest Regional Educational Laboratory (Starnes, 1999,
One of the fundamental tenets of the Foxfire approach is that the most powerful learning takes place when students are actively engaged in the learning process, a philosophy which confirms the validity of experiential education.

Another example of experiential education in practice is found in classroom lessons designed by members of the Teaching Shakespeare Institute, sponsored by the Folger Shakespeare Library. Many of the lessons are modeled after the practices of Michael Tolaydo, of St. Mary’s College of Maryland, and have come to be known as the “Tolaydo Method.” The method involves reading aloud, discussing, and performing pivotal scenes in key Shakespeare plays, with students participating as actors and directors and with only the most subtle guidance from the teacher. “It’s important to note that when I speak of performance, I am not speaking about creating a scene for stage performance, nor am I suggesting that this work involves acting skills,” (Tolaydo, 1993, p. 28). The distinction is an important one. According to Robbins, using performance in
the classroom is often referred to as *creative dramatics* to distinguish it from *theater arts*. Robbins stresses creative dramatics as a method that focuses on the process of dramatic enactment for the sake of the learner, not for the sake of an audience (Robbins, 1988, p. 1). "Classroom drama is not learning about drama, but learning through drama" (Robbins, 1988, p. 1), and can apply to all content areas, in addition to Language Arts.

As used by Tolaydo, though, the process requires students to get on their feet, speak Shakespeare's words, and kinesthetically recreate the actions necessary for the advancement of the plot. "This exercise is a learning experience all by itself; in addition, learning in this way can also open up the play and provide the basis for further active exploration of plot, character, structure, language, genre, or What You Will" (Tolaydo, 1993, p. 28). Shakespeare Institute's Peggy O'Brien agrees, "Make no mistake: learning Shakespeare through doing Shakespeare involves the very best kind of close reading, the most exacting sort of literary analysis" (O'Brien, 1993,
p. xii). The undertaking of doing is experiential learning in its most pure form.

Recently, experiential education has been widely discussed among educational practitioners in the social sciences. In their article "Models of Powerful Learning in Social Studies", Curley and Whittaker (1996) explicate the 1994 vision statement of the National Council for the Social Studies (NCSS). Experiential learning is listed among the five features acknowledged by the NCSS to contribute to powerful student learning. They define experiential learning as simulations, video productions, raps, game shows, newscasts, role plays, group projects, mock trials, and historical journals. "Students enjoy engaging in such activities and many teachers agree that they help students acquire deeper conceptual understanding" (Curley and Whittaker, 1996, p. 14).

Leslie Hendrickson (1984), citing Dewey and Piaget as authoritative sources, describes additional experiential learning programs in social studies, such as student involvement in political campaigns and work with
legislators; student volunteer services, such as work in health clinics, on youth hotlines, and in day care centers; community study, such as initiating surveys of attitudes on current issues; and student internships in which a few hours per week are spent with community figures such as police officers, fire fighters, prosecutors, or welfare workers (p. 1-2).

Additionally, experiential education is appropriate and useful in the sciences. In her article "Reading, Writing, and Experience in High School Social Studies and Science", Sturtevant (1994) says, "Most science and social science specialists value an inquiry approach to learning in which students are provided with experiences which will build conceptual understanding... This approach requires experimentation, observation, and problem solving in science, and similarly, use of original sources, personal experiences, and thoughtful discussion in social science" (p. 95). She cites as an example of this approach a social studies unit on the Vietnam War that would "...ideally include reading multiple original sources such as letters,
comparing information presented in various textbooks, interviewing community members who had lived through the experience, visiting museums that contain exhibits related to the time period, reading related literature, and participating in reflective discussions and writing related both to what was read and what was experienced" (Sturtevant, 1994, p. 96).

Caine and Caine (1994) report that teacher Martha Kaufeldt organizes math study into thematic units. She begins by introducing a mathematics concept such as division to her students, and division becomes the theme of every activity that occurs during the day. The students divide pizzas at lunch, they divide the space in their classroom, they divide time into specified segments (p. 171).

At the high school where I am employed, an experiential learning program designed by teacher Timothy Tuttle known as Skull Island is available to freshman students. The program is offered through the coordinated efforts from the departments of Language Arts, Social
Studies, Science, and Math. The premise of the class is that a group of students is hypothetically “shipwrecked” on a tropical island. Their job is to learn about their environment in order to “survive” and “find their way back to civilization.” To do this, they study geological formations and participate in a field trip to a local inactive volcano. They study latitude, longitude, and ocean currents. The learners conduct scientific inquiry into flora and fauna, including a field trip to study a local tide pool. Working in collaborative teams, they build palm frond shelters. The students organize a government and agree upon a system of rules for their group. They read the novel *Lord of the Flies* and write an extensive personal journal of their thoughts and experiences with the course.

These examples are just a sampling of the many types of experiential learning activities and programs already found in classrooms throughout the country. The possibilities are endless.
As orchestraters of learning experiences, teachers can achieve success in lesson design by giving close attention to a broad spectrum of student needs. Caine and Caine (1994) advise teachers to, "...give students real experiences, engaging all their systems and their innate curiosity and involving them in appropriate physical movement, social interactions, practical projects, uses of language, and creative enterprises" (p. 51). To do this, I have composed a list of components based on a review of the literature that I recommend the teacher considers:

- identify the specific area of emphasis, focal point, or central concept, for the lesson
- determine learning objectives
- tap into prior knowledge
- select reading material
- design an appropriate experiential learning strategy
- incorporate thoughtful discussion
Identifying the Specific Area of Emphasis. The first of these elements is to identify exactly what emphasis, focal point, or central concept is to be explored. Ideally, the emphasis of the lesson would not be a catalog of facts, but rather a main concept or a thematic idea. This fosters the "wholes to parts" approach described by Brooks and Brooks (1993). They say that "...students are most engaged when problems and ideas are presented holistically rather than in separate, isolated parts" (p. 46). They explain that the majority of traditional learning strategies break wholes into parts and then focus separately on each of the parts. But many students are not able to successfully assemble the separated ideas or skills from the disjoined parts to unified wholes. "When concepts are presented as wholes, on the other hand, students seek to make meaning by breaking the wholes into parts that they can see and understand. Students initiate this process to makes sense of the information. They
construct the process and the understanding rather than having it done for them" (Brooks and Brooks, 1993, p. 47).

Identifying a central concept or a theme gives the learning experience interest and appeal to a broad spectrum of students; it invokes "universal ideas and concepts that almost everyone can identify with independently of subject mastery" (Caine and Caine, 1994, p. 120). Additionally, students' differing learning styles can be accommodated under the umbrella of a unifying theme. "Structuring curriculum around 'big ideas' and broad concepts provides multiple entry points for students: some become engaged through practical responses to problems, some analyze tasks based on models and principles, and others interpret ideas through metaphors and analogies from their unique perspectives. The environment and the use of broad concepts invite each student to participate irrespective of individual styles, temperaments, and dispositions" (Brooks and Brooks, 1993, p. 58). Once the emphasis, or focal point, has been
determined, the teacher can specify more specific objectives for the lesson.

**Determining Learning Objectives.** After deciding upon an emphasis or concept for the lesson, the teacher will need to identify more specific learning objectives. For example, the focal point for a particular unit may be American Transcendentalism. One of the specific learning objectives may be that students will learn the characteristics of the movement. A second objective may be that the learners will become familiar with some of the leaders of the movement, such as Emerson, Thoreau, and Fuller. A third objective may be that the learners will read *Walden Pond* and explain how the piece fits into the category of Transcendentalist literature. A fourth objective could be for students to produce an original poem or essay that also possesses the characteristics of Transcendentalist literature.

**Tapping Into Prior Knowledge.** The next step would be to tap into students' prior knowledge. As has been discussed earlier in this paper, teachers need to know
what knowledge students already possess before the lesson begins, and what s/he wants them to gain through participating in the orchestrated experience. To this end, creating KWL charts is particularly useful. KWL charts show what students already know, what they want to know, and what they have learned (K stands for known; W stands for want to know; L stands for learned). To create a KWL chart, the student simply divides a piece of paper into three columns. In the first column, the student writes what s/he already knows about the topic under study; in the second column the student writes what s/he would like to learn from the learning activities about to take place; in the third column the student writes, at the conclusion of the learning activities, what s/he has learned from the inquiry. KWL charts are an excellent means of discerning prior knowledge, setting goals for the learning activities, and assessing the achievement of those goals.

Selecting Reading Material. The fourth component is selecting the assigned reading. Typically this would include selections from the textbook, as well as any
supplemental reading materials the teacher introduces into the lesson. The assigned reading furnishes background information about the topic under study, provides a springboard for discussion, or presents thematic perspectives for consideration.

Designing an Experiential Learning Strategy. The fifth component would be, given the limited resources of space, materials, and money, what structured experience could be orchestrated that would best enable the students to construct meaning. Sample types of structured experiences would include dramatizations, total physical response activities, simulations, creative elaboration, exhibitions, problem-solving, and real-world projects. Each of these will be discussed in greater detail later.

Incorporating Thoughtful Discussion. A sixth component which must be included in experiential learning lesson design is thoughtful discussion. "Having an opportunity to present one’s own ideas, as well as being
permitted to hear and reflect on the ideas of others, is an empowering experience," (Brooks and Brooks, 1993, p. 108). "The benefit of discourse with others, particularly with peers, facilitates the meaning-making process" (Brooks and Brooks, 1993, p. 108). Through thoughtful discussion, learners are required to clarify their own points of view and are invited to consider the perspectives of others. Ultimately, they are challenged to re-evaluate their own beliefs and values. The sharing of ideas is essential to the learning process. Flavell believes that, "Such interactions foster the cognitive processes of assimilation, accommodation, and equilibration, as well as the development of role-taking skills," (Flavell, as quoted by Teets and Starnes, 1996, p. 34). Vygotsky claims that, "all higher mental functions, which include mediated perception, focused attention, deliberate memory, and symbolic thought, are first developed through shared interactions" (Vygotsky, as quoted by Teets and Starnes, 1996, p. 34).
Planning for Reflection. A seventh component of lesson design is reflection. Although in past practice reflection has not been considered very important, recent research is suggesting that it is essential to the learning process to provide students with opportunities for reflection. Structuring a learning experience without including opportunities for reflection is like eating a gourmet meal without digesting it. Washbourn (1996) says, "...experience alone is not the best teacher. For experience to lead to learning, as several educators and psychologists have observed, we must reflect on our experience in a continuous process of 'making meaning' out of our experiences so that they may contribute to our cognitive, aesthetic, and affective development" (p. 12). Reflection is an essential element of experiential education because it allows students to use the structured experience to test, re-evaluate, confirm, or reconstruct previously held beliefs and values.

Although reflection is frequently viewed as a culminating activity, self-awareness of metacognitive
development is an ongoing process. To facilitate this, Blakey and Spence (1990) recommend the use of journals or learning logs, which serve as a record of thoughts, perceptions, contradictions, concerns, questions, conclusions---in short, the student’s evolution in thinking as s/he struggles to make meaning of the literature. They call this “a diary of process” (Blakey and Spence, 1990, p. 2). Jacobs (1990) uses “experience charts” with very young students to record this evolution in thinking, but the practice can be easily modified for older learners. “Generally, the sequence of activities in chart-making is: observation, discussion, dictation, reconsideration, revision, reading of final text and making personal copies of the text to take home” (p. 117). For older learners, for example, the activities in chart-making could include summarizing, discussing, reflecting, and journaling. Short and Burke (1991) describe a strategy that involves using photographs taken during learning activities and having the learners write about what they
were thinking and doing at the time the photograph was taken (p. 66).

Whatever the preferred format, the process of recording thoughts, impressions, reactions, opinions, and feelings on a regular basis, whether in KWL charts, experience charts, or journals, is an important task for students to be engaged in because "this is an inner dialogue that allows writers to experience themselves from many different perspectives. The advantage is that students 'bring to the surface' or 'bring out' thoughts that might never otherwise emerge. In journals, they are literally exploring the landscape of their own locale memory system" (Caine and Caine, 1994, p. 163).

Devising an Assessment. The eighth component of lesson design is to determine what assessment or evaluation instrument would best document students' increased understandings. As has been previously discussed, traditional assessments are not the best instruments for evaluating the complex and diverse understandings that result from well-designed experiential
learning activities. "Evaluation is part of the curriculum, not separate from it, and therefore needs to be guided by the same beliefs that guide our thinking as we work with students to develop curriculum" (Short and Burke, 1991, p. 61). Because meaning-making develops as a result of ongoing investigation, experimentation, and rethinking, it would make more sense to allow students to demonstrate their newly-acquired understandings through a wide variety of means collected throughout the course of the orchestrated experiences, instead of just one multiple-choice test at the end of the unit, as is a typical practice in classrooms today.

Ideally, evaluations would include aspects of both quantitative and qualitative elements. Quantitative assessments measure the amount of learning achieved; qualitative assessments measure the kind and quality of meaning-making achieved. For example, assessment for a single thematic unit could include a dramatic re-enactment (quantitative), an example of creative elaboration (such as an artistic interpretation) which shows the
transference of the learned information to a new context (qualitative), a multiple-choice test (quantitative), and a reflective essay (qualitative). Obviously, though, since aspects of experiential education are inherently ambiguous, it would be impossible to definitively measure all of the ramifications of a particular learning experience upon each and every learner.

Despite this ambiguity, there are criteria for designing appropriate and competent assessments. According to Eisner, assessments should reflect real-world needs; reveal how students solve problems, not just the final answer; reflect values of the intellectual community from which the tasks are derived; not be limited to solo performances, but rather require an ability to work in cooperation with others; allow for more than one way to do things; allow for more than one acceptable answer to a question; promote transference; require students to display an understanding of the whole, not just the parts; and allow students to choose a form of response with which they are comfortable (Eisner, as
quoted by Hendricks, 1994, p. 2). Simply stated, an assessment should allow learners opportunities to demonstrate in more than one way their knowledge of content, their complex thinking processes, and their ability to transfer new knowledge to alternate situations.
CHAPTER FIVE

SPECIFIC INSTRUCTIONAL STRATEGIES

In designing experiential activities for the Language Arts classroom, the teacher may select from a number of possible categories of instructional strategies. Included in the list of possible strategies are dramatizations, total physical response activities, simulations, creative elaboration, exhibitions, problem-solving, and real-world projects.

Dramatizations. Dramatizations include such activities as pantomime, reader's theater, choral reading, writing and producing theatrical productions, radio programs, television screen plays or documentaries, and using the sequence of events in the literature as a script. By participating in dramatizations, students tap into and explore their prior knowledge in new directions, thereby generating new perceptions. "Drama increases creativity, originality, sensitivity, fluency, flexibility, emotional stability, cooperation, and examination of moral attitudes, while developing
communication skills and appreciation of literature" (Robbins, 1988, p. 2).

In a study published by Renee Clift in 1983, she reported that high school students using dramatization techniques performed as well as students who had been taught using traditional lecture, discussion, or seatwork approaches. "Moreover, they experienced more instances of higher order thinking, more topic-specific emotions, decreased apprehension, and less topic-irrelevant thought than students in the non-dramatic mode" (Clift, as quoted by Robbins, 1988, p. 2). Dramatizations allow students opportunities to explore and construct understandings of the central themes and issues presented in the assigned readings in more personal and more meaningful ways.

Total Physical Response. Total physical response activities involve knowing something at a kinesthetic-tactual level. Thomas Armstrong (1993) reports that in ancient times the body and mind were seen as one. "The Greeks prized the art of gymnastics as an important means of cultivating the powers of the mind..." (and) Eastern
cultures pursued the development of the mind for thousands of years through bodily activities such as yoga, tai chi, and aikido" (Armstrong, 1993, p. 77-78). Since the Middle Ages, our own culture, however, has sought to separate the body and mind. Recent scientific research has discovered, however, the significance of kinesthetics in learning. “The theory of multiple intelligences seeks to heal this rift between body and mind by regarding purposeful physical activity as an intelligence in it is own right” (Armstrong, 1993, p. 78).

“The body appears to be a regular barometer of cognitive events in certain individuals,” asserts Armstrong (1993, p. 81). He speaks of people who report having a “gut reaction” to an answer on a test or getting a “feeling in their bones” about a certain person, place, idea, or event. He reports that British poet A.E. Houseman wrote about how his body manifested recognizable physical symptoms whenever he was struck by a particularly creative idea (Armstrong, 1993, p. 81). Total body response
activities are designed to capitalize and expand upon this physical way of knowing.

Simulations. Simulations are another category of experiential learning. In a simulation, the students are asked to recreate a situation or an event. Simulations differ from dramatizations in the respect that in a dramatization, the text is used as a script, and in a simulation, the text is used as a springboard for a recreation that is allowed to script itself. Through participation in simulations, learners are provided with opportunities to actively explore and experiment in solving problems which require the integration of prior knowledge, personal values, and problem-solving skills. "Simulations are thought to be effective, in part, because they elicit higher levels of arousal, motivation, task engagement, and quality of problem-solving in students than that offered by traditional classroom methods" (Funke, as quoted by Cairns, 1995, p. 2).

Creative Elaboration. Creative elaboration "emphasizes the reorganization of experience. One of the
keys to effectively digesting and learning from experience is to deliberately set out to represent such learning in different ways and from different points of view” (Caine and Caine, 1994, p. 161). One example of creative elaboration would be to ask students to artistically represent the plot of a short story by creating a storyboard, or to select and illustrate the most important scene in the story. Another would be to ask them to rewrite a story from the point of view of another character. A third example would be to ask students to create a pantomime or a dance that expresses the same idea presented in a poem.

Another technique of creative elaboration is to ask students to formulate their own analogies, similes, and metaphors. This strategy is useful for exploring new material, but is also useful for gaining fresh insights about content that may already be familiar. By explaining "how this is like that", students will capitalize upon the brain’s innate desire and ability to connect new information with something already known, thus adapting
and adopting new material into their existing personal thought systems. "In part, this is a way of generating associations with more of what we already know. Elaboration is also a way of recognizing and harmonizing with our own barriers and moving beyond our mind sets" (Caine and Caine, 1994, p. 161).

Exhibitions. Creating exhibitions present unique and stimulating opportunities for experiential learning. When students prepare an artifact for exhibition, they are actively engaged in a kind of creative elaboration. The new understandings, perceptions, and insights of each individual learner are represented by the artifacts they produce for exhibition. Preparing an artifact for exhibition is a valuable means of evoking and demonstrating new understandings, gives learners opportunities to show that they are able to use their new knowledge in context, and imprints the new knowledge more permanently in the locale memory systems (Caine and Caine, 1997).
Furthermore, students can trigger transformations in the ways of thinking within the other learners in the class when they share their original artifacts. Students need to know that there is an audience for their work beyond the teacher. Teets (1996) asserts that "doing work for a 'real' audience that values and supports the work...is potentially more motivating than simply receiving a grade on a project from the teacher...Teachers often report that the use of the audience core practice improves the quality of student work, and it boosts self-confidence as well" (p. 34). "The main point is that learners should be constructing their own artifacts and sharing with their community" (Hung and Wong, 2000, p. 35).

**Problem-Solving.** Problem-solving is an educational strategy that is invaluable for helping students come to their own understandings. "Through exploring, then experimenting, trying out a hypothesis, and finally, solving problems, children make learning personal and meaningful" (Britz, 1993, p. 1). Problem-solving requires
the learners to tap into personal reservoirs of conceptual knowledge and individual procedural strategies.

Practice with problem-solving allows students opportunities to strengthen their cognitive skills. According to Kerka (1996), learners who are asked to solve problems are required to use different cognitive strategies and processes. The most important and most transferable of these are metacognitive or general controlling processes, such as recognizing and defining the problem, deciding upon solution processes, and sequencing processes into a strategy, evaluating solutions, and analyzing feedback (p. 1-3). The process of solving problems activates and strengthens specific brain mechanisms that deal with these functions. "Expert problem solvers appear to have more accessible knowledge and cognitive skills, in part because they organize knowledge in large chunks grouped into clusters, making what they know more retrievable" (Kerka, 1986, p. 1).

Problem-solving gives learners opportunities to formulate ideas, experiment and manipulate those ideas,
and accept or reject what they have experienced. Because of the trial-and-error nature of problem-solving, students may sometimes make mistakes. This is to be expected and accepted as an important part of the learning process. "Constructing knowledge by making mistakes is part of the natural process of problem solving," (Britz, 1993, p. 1). But even if experimenting with possible solutions leads to making mistakes, this experience can be valuable to the learning process, because "by evaluating the problem-solving process, children assess their choices and mistakes and learn to be independent evaluators of their work" (Britz, 1993, p. 3).

Furthermore, problem-solving, especially if done in collaboration with peers, strengthens important interpersonal and social skills. "By choosing and trying out a solution, learners develop empathy, come to consensus, and share the responsibility of the decision. These are valued learnings in a democratic society" (Britz, 1993, p. 3).
Real-World Projects. Excellent opportunities for experiential education can be achieved by asking students to pursue real-world projects. Teachers need to involve their students in experiential learning activities that are complex and interactive, in learning experiences that are dynamic, significant, and real. Caine and Caine (1994) assert that, "One function of schooling should be to prepare students for the real world. They need to have a sense of what will be expected of them, how they will be challenged, and what they are capable of doing" (p. 18). Real-world projects offer liberal opportunities for students to safely test their abilities to cope with real-world problems and develop viable solutions. Furthermore, real-world projects effectively connect the content students encounter in the classroom to the wider world in which the student actually lives, and they can generate enriching learning experiences that expand far beyond the specific content of any one course.
CHAPTER SIX

IMPLICATIONS AND CONCLUSIONS

While educators have long believed that it is important to connect new learnings to students' prior knowledge, it is often difficult to accomplish this if students' prior exposure to relevant concepts or information is significantly lacking or severely limited. Therefore, to be an effective educator it is imperative to be adept at designing and implementing learning experiences in the classroom which will serve as building blocks upon which students can construct new and personally meaningful understandings. We must be able to do this despite limitations in space, time, and funding.

As a result of the research I have conducted for this thesis, I have come to the conclusion that the ability to successfully design and implement meaningful learning experiences depends upon an awareness of current scientific research about how the brain functions, and an understanding of how this scientific data relates to learning. The more proficient we are at structuring
educational experiences that tap into the brain’s innate meaning-making functions, the more efficient and successful we will be as educational practitioners. And, while the literature does not suggest that all activities introduced into the secondary Language Arts classroom should fall into the category of experiential education, it does support the conviction that where such learning experiences are deemed appropriate and desirable by the instructor, this approach can be an invaluable strategy for strengthening and enhancing meaningful learning. The research indicates that experiential education is significant, effective, and desirable because it is an approach that addresses the learner’s conscious desire to create meaning, it acknowledges the brain’s rules for meaningful learning, and it emphasizes the importance of orchestrating learning experiences that comply with those rules.

Care must be exercised, though, when designing experiential learning activities, that there is a clear and intentional purpose for the orchestrated experience.
Experiential education should not be characterized by clever gimmicks or cute projects. Instead, experiential education calls for a deliberate and systematic approach to lesson design. This approach requires a shift away from teaching strategies that rely predominantly on those methodologies derived from a Platonic epistemology. Although there is a certain amount of resistance within the teaching community to this shift, the research suggests that educators must be willing to make the effort to do so if their work in the classroom is to serve as a catalyst for meaningful learning. This assertion can be supported because the research on how the brain functions suggests that true learning only occurs when the focus of educational activity shifts from mastery of "surface knowledge" to mastery of "meaningful knowledge."

Furthermore, when designing experiential learning activities, there must be a provision for thoughtful discussion and reflection. It is also important to acknowledge the affective domain in order to give a sense of vitality and authenticity to the learning experience.
There is empirical evidence to support the theory that emotion is essential to learning. Also, students' prior knowledge must be recognized and honored; more importantly, through orchestrated experience, students' prior knowledge can and should be expanded and modified or reconstructed in positive and productive ways.

Additionally, the research implies that when students demonstrate their mastery of a concept, such demonstrations should allow for more than one right answer, and they should allow learners opportunities to demonstrate in more than one way their knowledge of the content, their complex thinking processes, and their ability to transfer new knowledge to alternate situations. As a result of my readings, I have come to the conclusion that in order to accomplish this, updated assessment tools which are more accurate and authentic than traditional methods currently being utilized must be devised to measure the kind of learning that results from experiential learning activities.
The goal of this project is to provide a blueprint for educators who wish to design experiential education activities for their secondary Language Arts classrooms. This can be achieved through identifying a central concept and some specific learning objectives, connecting the educational experience with prior knowledge and an assigned reading, identifying an experiential learning strategy from among those suggested in this paper, designing a very carefully structured learning experience, taking care to include discussion and reflection, and planning an appropriate assessment which could include, but goes significantly beyond, traditional types of testing.
CHAPTER SEVEN

EVALUATION

Three readers were asked to evaluate the paper. The first reader was Dr. Dale Mitchell, Assistant Superintendent of Educational Services for the Morongo Unified School District. The second reader was Mrs. Mary Anne Rasmussen, Department Chair for the Language Arts Department at Centennial High School, in the Corona-Norco Unified School District. The third reader was Mrs. Bridget Boyle, Coordinator of the AVID (Advancement Via Individual Determination) program at Centennial High School. Each of the readers responded to the following evaluation questions:

- Is the body of the paper clearly written and does it follow a logical progression of ideas?
- Do the lesson plans appear to meet the objectives stated in the body of the paper?
- Do the lesson plans seem viable for a public school Language Arts classroom, and valuable as instructional tools?
- Are there any constructive criticisms or suggestions for improvement that come to mind?

All three of the readers expressed the opinion that the body of the paper is clearly written. Mrs. Rasmussen stated, "The body of the paper is written in an easy-to-follow style that maintains an informative tone. It moves smoothly from an anecdotal introduction in Chapter One to a scholarly review of literature to the practicalities of designing lessons that provide experiential learning strategies."

Dr. Mitchell, however, expressed concern over the structure of the chapters. He said, "Much of what is written in Chapter Three are ideas that could have been incorporated into Chapter Two." In the writing of this paper, I deliberately separated the information from the review of the literature into several chapters (Chapters Two, Three, Four, and Five), because I thought the information organized into smaller, more concentrated segments was easier to read. However, in response to his concern, I incorporated a paragraph at the end of Chapter
One to describe the structure of the paper. This paragraph should help to unify the chapters devoted to the literature review.

Dr. Mitchell also expressed a concern that some of the references in the literature review seem dated. He said, "My experience is that references prior to five or six years of publication of a Master's or Doctoral paper should not be included, except under novel or unique circumstances." An analysis of the bibliography of this paper reveals that of the 37 references cited, 16 are dated prior to 1994. Mathematically, this translates to 43%. In conducting my review of the literature, I discovered that publications related to experiential learning are scarce. This is probably because the scientific research cited in this paper which supports experiential learning strategies is based heavily on studies conducted to understand brain function in general. This research has only recently been connected to learning theory, and has not widely been applied specifically to lesson design. Therefore, experiential learning is an area
of educational theory that is, to date, relatively unexplored.

Each reader believed the lesson plans met the objectives stated in the body of the paper. Mrs. Boyle appreciated the experiential learning strategy labels at the beginning of each lesson plan, and Dr. Mitchell observed that at least one sample lesson for each experiential learning strategy identified in Chapter Five was included in the sample lessons. Mrs. Rasmussen commended the fact that the sample lessons spanned grade levels from 7-12.

Dr. Mitchell expressed concern, though, that the amount of time devoted to the implementation of these lessons was unclear. He commented that "significant prior instruction will need to occur in order for students to be successful during the targeted lessons identified in this paper." Mrs. Rasmussen said the lesson plans appear to be well-constructed and creative; however, she cautions that teachers need to be reminded, as previously mentioned in the body of the paper, that "these kinds of lessons should
be used purposefully, and not to create a project-circus atmosphere in the classroom."

Mrs. Boyle was particularly enthusiastic about the Beowulf lesson plans, but Mrs. Rasmussen questioned the willingness of secondary students to participate in total physical response activities. In implementing this lesson plan in my own classroom over a period of three years, my experience has been that many students are willing to participate if the activity is preceded by previous physical response activities that seem less threatening to them. I have observed that if students understand early in the course that part of the learning experience includes movement, they will be more willing to participate in total physical response activities.

With regards to the viability and validity of the sample lesson plans, all three readers responded positively. Mrs. Boyle expressed a belief that most of the activities would work better with smaller classes. In response to this concern, I can say that I have personally successfully used some of the lesson plans with classes of
as many as forty students, although when the lesson plans called for physical movement, it was necessary to move the students out of doors, and this situation did present some management problems.

Lastly, Dr. Mitchell commented that, "The variety of learning activities should contribute to a high level of student interest and meet the diverse learning needs of ... students." Each reader voiced confidence that the learning activities described in the lesson plans could make a positive difference in a secondary Language Arts classroom.
Lesson Plan 1: *Julius Caesar* by William Shakespeare

Grade Level: 10th Grade

Central Concept: Understanding Human Motivation

Specific Learning Objectives: Students will be able to extract meaning from Shakespeare's difficult language. Students will learn the plot, setting, characters, conflicts, and themes of the play *Julius Caesar*. Students increase their understanding of human motivation.

Experiential Learning Strategy: Dramatization.

Probing Prior Knowledge: In a brief journal, students will record a description of a goal s/he has achieved, and tell what motivated them to work towards the achievement of that goal. Learners will volunteer to read their papers for the whole group.

Assigned Reading: There will be three assigned readings for this play. The introductory reading would be a choral arrangement of Marc Antony’s speech from *Julius Caesar*, Act II, scene ii, lines 74-108. The purpose of this is to give students practice speaking Shakespeare’s words in a low-risk atmosphere. Following this, the learners would read a prose summary of the plot of the play. In this way, students would approach the play already familiar with the plot, setting, conflicts, characters, and themes. The third reading would be the play itself.

Structured Experience: The members of the class will be divided into groups, called acting companies. Each company will select a scene from the play to perform for the whole group. Every member of the group must participate in the production and each one must have
a speaking part on stage. Each group must produce a prompt book for their scene, in which they record decisions about blocking, stage directions, vocalization of lines, facial expressions, and gestures. Additionally, students can include descriptions and sketches of set designs, costumes, and props. Each student adds remarks about the character s/he is portraying, addressing these questions: What does the character want in this scene? What does the character say or do to try to get it? After an appropriate amount of preparation time, learners perform their scenes for the entire class. The prompt book is submitted for assessment.

Discussion: Throughout the preparation of the scene, learners will engage in problem-solving dialogue. Following each performance, students will be asked to speak informally to the whole group about insights, problems, or questions which derived from the preparation of the scene. Audience members could be asked to offer constructive comments about each performance.

Reflection: Ongoing reflection will be evident in the prompt book. Additionally, students will write a self-evaluation of their individual performance, and the experience as a whole. Additionally, learners will be asked to write an analysis of the character s/he portrayed, including specifically details relating to motivation.

Assessment: In assessing the performance of the student in this structured activity, the teacher should consider the following five areas:

1. Did the student actively participate? Did the student portray a character with speaking lines on stage?
2. Did the learner adequately convey that character's personality and motivations? Can the student effectively communicate verbally and/or in writing the character's personality and motivations?

3. Can the student explain how his/her scene contributes to the development of the plot, setting, conflicts, characterization, or themes presented in the play?

4. Is there evidence that the learner contributed to the notations and diagrams recorded in the group's prompt book?

5. How has this lesson increased the learner's understanding of human motivation? How can this understanding be applied to situations other than the play?

Note: This lesson plan was adapted from Kathleen T. Breen (Breen, 1993)
Lesson Plan 2: Beowulf by the Beowulf Poet

Grade Level: 12th Grade

Central Concept: Characterization

Specific Learning Objectives: Students will identify personality characteristics revealed through the descriptions of that character’s movements as described by the author. Learners will understand how an author can portray characterization by describing a character’s movements. Students will apply their increased understanding by writing an observational essay which focuses on characterization revealed by movement.

Experiential Learning Strategy: Total Physical Response

Probing for Prior Knowledge: Video clip from the introductory dance number of West Side Story showing movements of characters depicting comfort, fear, threat, unity, bigotry and other emotions. Whole-group analysis of video clip. Brief whole-group discussion about how the manner in which an individual moves leads to the formation of some fundamental assumptions about that person’s character. Students may offer examples from personal observations.


Structured Experience: Students will locate and identify descriptions of various characters from the reading. (In the translation assigned, the characters described include Beowulf, Hrothgar, Welthow, Grendel, and Beowulf’s soldiers.) Each learner will
then select one character from the list and translate the description of that character into a kinesthetic performance for the other students. The performance should render character recognizable to the other learners in the class.

Discussion: Informally, the members of the class can verbally identify the character being portrayed, and discuss what aspects of the performance rendered the depiction recognizable. Students can identify and isolate some of the specific words used by the author to describe that movement.

Reflection: Following the kinesthetic presentation, learners will respond in writing to the following prompts: What do you know about the character now that you didn’t know before? What does the author’s description of the character’s movements reveal to you about that character’s personality?

Assessment: In assessing the performance, the teacher will ask the following three questions:

1. Did the student actively participate in the activity? Was the student able to use movement successfully to portray his/her selected character in a way that made his/her depiction recognizable to the other students in the class?

2. Can the student indicate verbally or in writing an increased awareness of how characterization can be enhanced through inclusion of descriptions of movement? How can this awareness be applied to circumstances other than this story?

3. Can the student produce a piece of writing in which s/he has achieved characterization successfully by including details of movement?
Lesson Plan 3: *Beowulf* by the Beowulf Poet

Grade Level: 12th Grade

Central Concept: Strength and Self-Defense

Specific Learning Objectives: Students will understand Beowulf’s strategy of self-defense against a larger, stronger opponent by using the strength of the opponent against him.

Experiential Learning Strategy: Total Physical Response

Probing for Prior Knowledge: Students will write a journal topic about people who intimidate others, and speculate about how a smaller person may protect him/herself against a larger or stronger assailant. Pair-share journals.


Structured Experience: A local martial arts studio will be invited to give a lecture and demonstration of self-defense techniques that involve using an opponent’s own strength against him. With safety in mind, and supervised by the expert from the studio, students will be allowed to experiment with the techniques.

Discussion: Following the experimentation, learners will discuss their reactions to the experience informally with classmates in pairs or small groups.

Reflection: Students will produce an individual informal written evaluation such as a journal entry or a response paper describing the value of the experience.
Assessment: In appraising the quality of the learning, the teacher will ask the following three questions:

1. Did the student watch and listen to the demonstration? Can the student restate in his/her own words the theory behind the martial arts technique demonstrated?

2. Did the learner actively participate in the activity? Does the student indicate an increased awareness of the physical concepts embodied in this particular technique of self-protection? How can this awareness be applied to contexts other than this story?

3. Can the learner communicate verbally or in writing a personal assessment of the value of the experience?
Lesson Plan 4: The Miracle Worker by William Gibson

Grade Level: 9th Grade

Central Concept: Compassion for the Physically Challenged

Specific Learning Objectives: Learners will understand some of the difficulties Helen Keller faced as a blind and deaf individual attempting to negotiate her way in the world. Students will develop an empathy for the physically challenged.

Experiential Learning Strategy: Simulation

Probing for Prior Knowledge: Whole group discussion for the purpose of culling prior knowledge would be useful; seek out students who may have friends or relatives who are physically challenged, and ask them to share their insights.

Assigned Reading: The Miracle Worker by William Gibson, to be assigned following the simulation activity.

Structured Experience: Learners will work in pairs. One student portraying a challenged individual will wear a blindfold, and the second student assuming the role of the guide will take him/her on a tour of the campus. The guide must make certain that the blindfolded student does not run into objects or stumble. Verbal cues for the purpose of negotiating the terrain should be kept to a minimum, but can be used to ensure safety. The guide should try to include a variety of surfaces in the tour, including cemented areas and grassy areas, going up and down stairs, etc. After about ten minutes, learners will reverse roles.
Discussion: Additional discussion should be centered on the activity itself; students should be encouraged to verbalize their concerns, awarenesses, reactions, fears, and revelations prior to, during, and following the activity.

Reflection: Following the pair-share, students can record their comments in a learning log or experience chart. Students should be sure to include a reflection upon their experience in each of the roles.

Assessment: In assessing the performance, the teacher will ask three questions:

1. Did the student participate in the activity? Did the student spend some time in each of the two roles?
2. What insights about the difficulties faced by the physically challenged were mentioned in the class discussions? What revelations are recorded in the learning log or experience chart?
3. As a result of the structured experience, what speculations can the student create about Helen Keller's thoughts, feelings, and needs?
Lesson Plan 5: *Brave New World* by Aldous Huxley

Grade Level: 12th Grade

Central Concept: Government Control of Individuals' Lives; The Possible Detrimental Effects of Science on Society.

Specific Learning Objectives: Students will be able to articulate some of the issues presented by the author in the first five chapters of the book. Learners will be able to reorganize the material presented into a new format (prose to song lyrics).

Experiential Learning Strategy: Creative Elaboration

Probing for Prior Knowledge: Learners will sing the song "I've Been Working on the Railroad".

Assigned Reading: Chapters 1-5 of *Brave New World* by Aldous Huxley

Structured Experience: All of the members of your group are Alphas living in the World State. You work with Helmholtz Watson in the Office of Emotional Engineering. Your group has been asked to create a "Solidarity Hymn" for the World State which will be used to reinforce some of the values of that culture. When you are ready, your group will be asked to perform your song for the entire class. You might want to consider writing lyrics to the tune of some familiar song such as "I've Been Working on the Railroad" or some other familiar song. Below is an example:
Identity, Community, Stability

(sung to the tune of "I've Been Working on the Railroad")

I'm a product of the assembly line,
Genetically engineered.
I'm number 90 in my Bokanovsky group.
By the World State I was reared.
I do the work that I was programmed for;
An independent thought has never occurred to me.
Identity, community, stability,
Thank Ford, and has been achieved.

Discussion: Thoughtful discussion could take place in two ways. The first would be in the form of idea-generating among the group members while they are in the process of producing their song lyrics. The second would be in the form of evaluation which would take place among the members of the whole class while critiquing the finished products.

Reflection: Each learner will write a short paper in which they list and explain each of the references from the novel used in their "hymn".

Assessment: In evaluating the finished product, the evaluator (which could be the other students in the class and/or the teacher), the following four questions could be asked:

1. Did the group complete the assignment?
2. Does the "hymn" reflect the issues and values described by the author in the book?
3. If asked, can each member of the group verbally explain each reference in the song. (For example, in the example above, could each group member define "Bokanovsky group"? Could each group member explain the reference to "Ford"?)
4. Did each member of the group complete the reflection assignment? Does the paper reflect a knowledge and understanding of the major issues presented in the novel? How can this knowledge be applied to situations other than this novel?
Lesson Plan 6: Poet's Corner

Grade Level: 7th through 12th Grades

Central Concept: Recognition of Great Poets and Authors

Specific Learning Objectives: Learners will select a poet they admire or consider to be great and prepare a presentation and display about that poet for others in the class. Students will use research skills to locate biographical information about their chosen literary figure. Learners will select an example of their poet's work to be shared orally with the whole group. Finally, students will prepare a visual display to be mounted on the classroom wall as part of a class exhibit imitating Poet's Corner in Westminster Cathedral, England. If the course is American Literature, learners could be asked to consider American poets only; if the course is British Literature, learners could be asked to consider British poets only. The visual display could take the form of a mural painted on butcher paper, an arrangement of clay tiles, or quilt squares.

Experiential Learning Strategy: Exhibition

Probing for Prior Knowledge: The teacher could ask students if they know of any monuments that have been created to honor categories of famous people. Sample responses from students could include Mann's Chinese Theater in Hollywood or Mount Rushmore in South Dakota. The teacher will then ask students if they have traveled to Westminster Cathedral in England to visit Poet's Corner there. Those who have done so will be invited to describe their visit to the whole group. The teacher could prepare a slide presentation of photographs of Poet's Corner in Westminster Cathedral, and identify some of the famous literary
figures buried there, asking students to indicate those with whom they are familiar.

Assigned Reading: The poetry collection found in the textbook.

Structured Experience: After students have decided which poet they wish to contribute to the class display, they will spend several days in the library to conduct background research and to select a favorite poem. Next the learners will sketch their contribution to the wall mural, the clay tile display, or quilt square. The sketches should include a likeness of the poet, the poet’s date of birth and date of death (if applicable), and perhaps the poet’s place of birth, or any other biographical information deemed pertinent. Additionally, the title of the poem selected by the student or a famous line or phrase (such as “Nevermore” from Poe’s “The Raven”) could be included. Students will then prepare their individual portion of the exhibit, and then the individual contributions should be assembled into a cohesive whole. Finally, in an oral presentation, the learners would introduce their poet to the rest of the class, giving biographical information and reading the poem they selected aloud, and explaining why they selected that particular poet to be included in the class exhibit.

Discussion: Student interaction will take place as the learners organize and arrange the component parts of the display. Students could also be encouraged to verbally react to the selections prepared by their classmates.

Reflection: Learners can be asked to produce a KWL chart for their chosen poet. The KWL chart would include what they knew about their poet prior to the
structured experience, what they wanted to know, and what they learned as a result of the activity.

Assessment: In assessing the learners' performance, the teacher will ask the following four questions:

1. Did the student prepare a contribution for the class exhibit? Does the choice of the student's contribution fit the parameters of the assignment?
2. Did the student participate in the organization and arrangement of the individual contributions into a unified whole?
3. Can the learner accurately communicate biographical information about his or her chosen poet?
4. Did the learner select and read a poem written by their poet before the whole group, and explain why s/he chose that particular poem?
Lesson Plan 7: "The Cask of Amontillado" by Poe

Grade Level: 9th Grade

Central Concept: Resolving Conflicts

Specific Learning Objectives: Students will be able to summarize the plot of Edgar Allen Poe's short story "The Cask of Amontillado". They will also be able to identify the setting, the theme, the characters, and the man-versus-man conflict present in the piece. Learners will devise a viable strategy for resolving conflicts.

Experiential Learning Strategy: Problem-solving

Probing for Prior Knowledge: Students can be asked to make a list of facts about the author Edgar Allen Poe.

Assigned Reading: "The Cask of Amontillado" by Edgar Allen Poe, to be read following the structured experience.

Structured Experience: The teacher will arrange for a mock argument to be dramatized before the entire class. This will probably work best if the members of the class are unaware that the conflict is staged. The gist of the argument should be that one person accuses the other of continuously insulting or offending him/her, and this behavior should stop. Following the argument, learners will be encouraged to discuss what they have witnessed with a neighbor. Students could be encouraged to talk about conflicts they have personally witnessed or experienced outside of this incident, and how those conflicts were resolved. The teacher could then ask students to form task groups of about three to four students and brainstorm a workable and acceptable strategy for how conflicts of this kind could be resolved. Students
could be asked to select a spokesperson for their group to share their strategy with the whole group.

Discussion: On the teacher's direction, informal discussion will take place between students immediately following the incident, and more formally within their task groups. Additionally, discussion will take place as the task groups share their devised conflict-resolution plans.

Reflection: Each learner will be asked to write an article for the newspaper in which s/he describes their conflict-resolution strategy. The best-written article could be submitted to the school newspaper for possible publication.

Assessment: In assessing the performance of the learners, the teacher will ask three questions:

1. Can the student retell the plot of "The Cask of Amontillado" adequately to someone who is not familiar with the story?
2. Is the student able to identify the man-versus-man conflict in the story, and the action taken by the character Montresor to respond to that conflict? Did the student contribute to the development of a better conflict-resolution strategy in his/her task group?
3. Did the student write an article suitable for publication which describes an effective and acceptable strategy for conflict-resolution?
Lesson Plan 8: "All Summer in a Day" by Ray Bradbury

Grade Level: 8th Grade

Central Concept: Environment Affects Emotions

Specific Learning Objectives: Students will be able to identify the plot, setting, theme, characters, and conflict of the short story. They will discuss the importance of the environment on emotions. Learners will complete a school service project in which they improve the physical environment of the campus.

Experiential Learning Strategy: Real-World Project

Probing Prior Knowledge: Students will compose a quickwrite in which they describe the overall condition of their campus, including such details as the condition and paint color of buildings, landscaping, outdoor sports facilities, condition of classrooms, library facilities, etc. They will reflect on the affects of the campus environment on their emotional mood while at school. Students will share their quickwrites with the other members of the class.

Assigned Reading: Learners will read the short story "All Summer in a Day" by Ray Bradbury.

Structured Experience: Students will identify an area of the campus which they believe is in need of improvement. They will work in cooperative groups or task committees to formulate a plan for carrying out the improvement, obtain permission from necessary school officials, conduct fundraising to pay for any needed supplies or equipment, perform any physical labor required, and do any necessary clean up needed.
Discussion: Following the reading of the story, students will discuss the emotional effects of the absence of sunlight and the perpetual rain in the environment of the foreign planet upon the main character. Additional discussion will take place in students' task committees as they organize and execute their school improvement project.

Reflection: Following the structured experience, learners will write a reflective essay in which they describe the entire process of the campus service project from beginning to end, and an accounting of their personal contribution to the project. Furthermore, they should describe any possible emotional reactions generated by the improvement in the campus environment experienced by themselves or experienced by others.

Assessment: In assessing the students' performance, the teacher will ask four questions:

1. Does the student know the plot, setting, theme, character, and conflict of the short story "All Summer in a Day" by Ray Bradbury? Can the learner articulate how environment affected the emotions of the main character?

2. Did the student actively participate in a committee and complete a fair share of the labor?

3. Has the student experienced increased awareness of how the environment affects human emotions? How can this increased awareness be applied to other contexts?

4. Did the student write a satisfactory reflective essay?
BIBLIOGRAPHY


