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CONSTRUCTING EXPERIENTIAL LEARNING

IN THE LANGUAGE ARTS CLASSROOM

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A Project

Presented to the

Faculty of

California State University,

San Bernardino

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In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

in

Interdisciplinary Studies:

Integrative Studies

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by

TerryLee Hutton Marzell

March 2001

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March 2001

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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.

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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 metalic-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

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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

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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

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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 <u>Fiddler on the Roof</u>. 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

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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

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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 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 <u>Kon-Tiki</u> 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 popsickle 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.

CHAPTER THREE

EXPERIENTIAL EDUCATION IN PRACTICE

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,

p. 3). 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

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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 <u>Lord of the Flies</u> 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.

CHAPTER FOUR

COMPONENTS OF LESSON DESIGN

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

- plan for reflection

- devise an assessment.

   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

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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

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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 re-

creation 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.

APPENDIX

SAMPLE LESSONS

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: <u>Beowulf</u> 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 <u>West Side Story</u> 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.

Assigned Reading: Selection entitled "Beowulf" from
    textbook <u>Elements of Literature, Sixth Course</u>, Holt,
    Rinehart, and Winston, Inc., 1997, pages 21-46.

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: <u>Beowulf</u> 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.

Assigned Reading: <u>Beowulf: A New Telling</u> by Nye, pgs.
37-42.

Structured Experience: A local martial arts studio will be
invited to give a lecture and demonstration of self-
defense techniques that involve using an oppponent'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 leaner 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 Montressor 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

Abdal-Haqq, Ismat, "Constructivism in Teacher Education:
    Considerations for Those Who Would Link Practice to
    Theory," Syracuse, NY, ERIC Clearinghouse on
    Information Resources, ED426986 98, 1998.

Armstrong, Thomas, PH.D., <u>7 Kinds of Smart: Identifying
    and Developing Your Many Intelligences</u>, New York, NY,
    Penguin Books, USA, Inc., 1993.

Blakey, Elaine, and Spence, Sheila, "Developing
    Metacognition," Syracuse, NY, ERIC Clearinghouse on
    Information Resources, ED327218, Nov. 1990.

Brandt, Ronald S., "On Teaching for Understanding: A
    Conversation with Howard Gardner," <u>Educational
    Leadership</u>, 50: 4-7 April 1993.

Breen, Kathleen T., "Taking Shakespeare from the Page to
    the Stage," <u>English Journal</u>, Vol. 82, No. 4: 46-48,
    April 1993.

Britz, Joan, "Problem Solving in Early Childhood
    Classrooms," Syracuse, NY, ERIC Clearinghouse on
    Information Resources, ED355040 93, 1993.

Brooks, Jacqueline Grennon and Brooks, Martin G., <u>The Case
    for Constructivist Classrooms</u>, Alexandria, Virginia,
    Association for Supervision and Curriculum
    Development, 1993.

Bush, Harold K, Jr., "Poststructuralism as Theory and
    Practice in the English Classroom," Syracuse, NY,
    ERIC Clearinghouse on Information Resources,
    ED387794, 1995.

Caine, Renate Nummela and Caine, Geoffrey, Making
    Connections: Teaching and the Human Brain, Menlo
    Park, CA, Innovative Learning Publications, 1994.

Caine, Renate Nummela and Caine, Geoffrey, Unleashing the
    Power of Perceptual Change: The Potential of Brain-
    Based Teaching, Alexandria, VA, Association for
    Supervision and Curriculum Development, Alexandria,
    VA, 1997.

Cairns, Kathleen, "Using Simulations to Enhance Career
    Education", Syracuse, NY, ERIC Clearinghouse on
    Information Resources, ED404583 95, 1995.

Cronin, John F., "Are You For Real?," Learning, 25:72-4
    Aug. 1996.

Curley, Robert and Whittaker, Andrea, "Models of Powerful
    Learning in Social Studies," Social Studies Review,
    Winter 1996, p. 14-20.

Fernlund, Phyllis Maxey, "Teaching for Conceptual Change,"
    Integrative Learning as the Pathway to Teaching
    Holism, Complexity and Interconnectedness, ed. by
    Blair and Caine, Edwin Mellen Press, Lewiston, New
    York, 1995.

Hancock, Lynnell, "Why Do Schools Flunk Biology?,"
    Newsweek, Feb. 19, 1996, pg. 58-59..

Hendrickson, Leslie, "Active Learning," Syracuse, NY, ERIC
    Clearinghouse on Information Resources, ED253468,
    Sep, 1984.

Hung, David W. L., and Wong, Angela F. L., "Activity
    Theory as a Framework for Project Work in Learning
    Environments," Educational Technology, Vol. XL, No.
    2, March-April 2000.

Jacobs, Leland B., "Experience---The Best Teacher,"
     Teaching K-8, 21:117-18 Nov/Dec 1990.

Kraft, D., and Sakofs, M. (eds.), The Theory of
     Experiential Education, Boulder, CO, Association for
     Experiential Education, 1988.

Kerka, Sandra, "On Second Thought: Using New Cognitive
     Research on Vocational Education," Syracuse, NY, ERIC
     Clearinghouse on Information Resources, ED 272699 86,
     1986.

Langer, Ellen J., Mindfulness, Reading, Massachusetts,
     Addison-Wesley Publishing Company, 1989.

Newmann, Fred M. and Wehlage, Gary, "Five Standards for
     Authentic Instruction," Educational Leadership, 50:
     8-12, April 1993.

O'Brien, Peggy, Gen. Ed., Shakespeare Set Free: Teaching
     Romeo and Juliet, Macbeth, A Midsummer Night's Dream,
     New York, Washington Square Press, 1993, pg. xi-xiv.

Robbins, Bruce, "Creative Dramatics in the Language Arts
     Classroom," Syracuse, NY, ERIC Clearinghouse on
     Information Resources, ED297402 88, 1988.

Saxton, Mary, "Art, Technology, and Cooperative Learning:
     Research and Personal Experience," Learning and
     Leading with Technology, 23: 66-8 Oct 1995

Schnitzer, Susan, "Designing an Authentic Assessment,"
     Educational Leadership, 50: 32-5 April 1993.

Seeman, Howard, "Why the Resistance to Experiential
     Learning?," The Education Digest, 54: 28-30 Dec 1988.

Short, Kathy G. and Burke, Carolyn, <u>Creating Curriculum:</u>
     <u>Teachers and Students as a Community of Learners</u>,
     Portsmouth, NH, Heinemann, 1991.

Sprenger, Marilee, "Memory Lane Is a Two-Way Street",
     <u>Educational Leadership</u>, November 1998, pg. 65-67.

Starnes, Bobby Ann, "The Foxfire Approach to Teaching and
     Learning: John Dewey, Experiential Learning, and the
     Core Practices," Syracuse, NY, ERIC Clearinghouse on
     Information Resources, ED426826 99, 1999.

Sturtevant, Elizabeth G., "Reading, Writing, and
     Experience in High School Social Studies and
     Science," <u>Contemporary Education</u>, 65: 95-8 Winter
     1994.

Tanner, Laurel, "Leadership Ideas from Dewey's School,"
     <u>Educational Horizons</u>, Vol. 77, No. 2: 63-66, Winter
     1999.

Teets, Sharon T., and Starnes, Bobby Ann, "Foxfire:
     Constructivism for Teachers and Learners," <u>Action in</u>
     <u>Teacher Education</u>, Vol. XVIII, No. 2: 31-39, Summer
     1996.

Temple, Charles A, and Rodero, Margaret L., "Active
     Learning in a Democratic Classroom: The 'Pedagogical
     Invariants' of Celestin Freinet," <u>The Reading</u>
     <u>Teacher</u>, 49: 164-7 Oct 1995.

Tolaydo, Michael, Performance Ed., <u>Shakespeare Set Free:</u>
     <u>Teaching Romeo and Juliet, Macbeth, A Midsummer</u>
     <u>Night's Dream</u>, New York, Washington Square Press,
     1993, pg. 27-31.

Washbourn, Penelope, "Experiential Learning: Is Experience
     the Best Teacher?," <u>Liberal Education</u>, 82: 10-15
     Summer 1996.

Wasserman, Selma, "Creating Opportunities for Learning,"
     Childhood Education, 67: 110+ Winter 1990.