The Learning Experience

The Concrete-Abstract Continuum

The concrete-abstract continuum is based on the theory that the more concrete the learning experience, the easier the concept is to learn. This is due to the principle that hands-on learning is especially effective when mastering an unknown abstract concept. A direct experience that absorbs multi-sensory perception typifies the real-world and achieves effectual learning.

Concrete or direct sensory perception does have its shortcomings because experiential learning is not always feasible within a classroom. In the classroom, the instructor presents abstract concepts to the learners usually through words and symbols. Because experiential learning requires a state of physically living the experience, it is more time consuming and less practical for an instructor.

Dales’s Cone of Experience was developed in 1946 and demonstrated the pattern of learning based on the concrete-abstract continuum. The upside-down cone represented learning through 11 tiers of learning experiences. The cone’s widest circumference corresponded to “direct, purposeful experiences” which employed a longer period of learning time. As the learner advanced up the cone, the experiences became more abstract and less time consuming until reaching the top tier of the cone where learning was achieved in the least amount of time through abstract verbal symbols (p. 11).

The psychologist Jerome Bruner paralleled Dales’ Cone of Experience and divided Dale’s 11 tiers into three major sections – enactive experience, iconic representation, and symbolic representation. He classified concrete, experiential learning as an “enactive experience”, and proposed that instruction progresses through levels of experience from enactive, to iconic, and symbolic as the most abstract. An “iconic experience” utilizes visual images such as pictures and films for learning, symbolic representation relies totally on the use of words or symbols for learning. In his theory of instruction, Bruner associated instruction as progressing through these three levels starting with enactive experiences, iconic representations of the experience, and the most efficient being symbolic representations of the experience. This state of learning was not possible unless the learner had relevant experiences that he/she could use to represent and illustrate the abstract ideas.

Because time constraints do not permit instructors the luxury of providing students with direct experiences for every learning experience, other methods are often employed. Using Dale’s Cone of Experience as a guide, each of the instructional methods advancing up the cone would consume less time. With more time, an instructor could recreate the experience for the students, dramatize the experience, give a demonstration of the experience, or show a movie of the experience. With less time consumption, projecting images or providing recordings of the experience could result in effective learning. Providing the learner with visual and verbal symbols would be the least time consuming, and the most abstract in the continuum.

What is important is that students have experiences to exemplify abstract concepts that are being taught. If they do not, then visual or verbal symbols present no association to the student, and learning is not achieved. The fact is some concepts take longer to teach, require more exemplification and association with the learners’ own experiences to accomplish learning.
Profile Paper Assignment

The instructor must draw on his/her own experiences in order to determine the abstraction of a concept, and the most effective instructional method for teaching the learner. For example, in my Expository Writing class, one of the assignments is to write a profile paper on a person, place, or activity of their choice. Students have no idea what a profile is so I need to help them draw a picture in their minds of the characteristics that profiles have. During class, I have my students visualize themselves as television reporters that are producing a news spot, or as detectives analyzing a “crime” scene. We discuss the qualities of each such as how a television spot not only tells the viewer about the event, but also shows the viewer what is occurring in front of and behind the scenes. We analyze the work of a detective, how he scrutinizes a scene critically, and attempts to find interesting, unusual, and suspicious activities that would give the scene a unique angle. These analogies that we discuss help prepare the students in developing their own observation skills.

I continue by explaining that this method of show and tell is helpful when writing a profile of a person, place or activity. A profile should provide vivid description, the writer’s observations, be informative and entertaining, present actions and dialogue within a scene, and be meaningful. It should be presented in a different light with a unique angle in order to attract and maintain its significance.

Then, we read excerpts from profile papers in the text that exemplify unique angles, observations, and interesting, meaningful and significant details. One profile the students especially enjoy reading is a profile written by a college student about a mortuary. The paper is organized as a narrative of the writer’s tour through the rooms in the mortuary using vivid description, action, and dialogue with the mortician. This helps to set the mood for the upcoming class activity spent entirely developing each student’s observation skills.

I prepare the students for the activity by explaining that they must make use of all their senses and record this information in their notebooks while they are observing. Students spend the full period together in groups visiting the student center on campus. Each student is required to observe and note as much information as possible related to the setting, the people, and their personal reactions to both.

When observing the setting, students are instructed to note details such as the objects they see, their colors, shapes, sizes, textures, functions, and the relationship between similar and dissimilar objects. Not only do they record visual details, but also sounds and smells as well. Students must look at the scene from a variety of angles; and analyze the layout and structure of the entire place.

Students also must observe the people in the setting. They note their activities, movements, dress, appearance, gender, age, ethnic background, and behavior. Students should listen in on conversations and record parts of the conversations as well. They should also note anything surprising, unusual, or interesting about the people and their interactions. In addition, students jot down their own impressions, thoughts, perceptions, and questions as they occur to them while observing the setting and the people. (During this, I observe the scene and the students as they observe and take notes, and provide guidance on discovering and noting sensory details.)

In the following class, students compare and compile their notes and present a one page report of their observations to the class. The presentation of their report with the details of their observations, the different angles that are seen, the overhead conversations, and the impressions
and doubts related to the activity help the students comprehend different perspectives on a shared activity, and develop more awareness of strengths and weaknesses in their own observational skills.

Although the observation activity and the students’ presentations filled two entire classes, the learned observation skills contribute not only to the students’ aptitude in writing a profile paper for my course, but also for writing in other academic courses, in their communities, and even their future careers.

The exercise facilitated the acquisition of observation skills necessary for developing a profile paper. Observational skills and profile papers are abstract concepts that were learned through symbolic representations such as discussion, visualization, and the textbook. The experience of observing the setting and people in the student center represented an enactive experience shared by all. Through these instructional methods, abstract concepts were transformed into concrete associations and experiences.

Another way that these abstract concepts may be learned could be through providing students with iconic representations of a scene to be observed. Presenting a picture or a short videotape of a scene, and having students jot down all their observations would be useful but would have the disadvantage of not representing all the senses. To compensate, I would ask students to create the feelings and smells associated with the scene. This imaginative exercise would add intrigue and creativity to the activity. The fact that I chose to enact a representative scene allowed students to observe and experience the scene directly. The exercise gave a closer, more realistic representation of the activity students would have to individually while preparing their papers.

More information can be provided in less time to learners when presented with visual or verbal symbols. However, if students lack suitable experiences to manage these symbols, then the instruction time has been misspent. Dales’s Cone of Experience serves as a useful guide for the instructor to analyze and determine the instructional media that is appropriate for the concept. Through students’ feedback, the instructor can assess whether the instructional experience fulfilled its purpose.

The Use of Visuals in the Instructional Setting

As Dale’s Cone of Experience and Brunner’s theory of instruction demonstrate, the use of visuals to represent experience can be equally effective and less time consuming than direct enactive experiences. However, visuals must be prepared carefully and follow guidelines that are expressed by Heinich, Molenda, Russell & Smaldino (2002) in Chapter 5 of the text.

Visuals “provide a concrete referent for ideas” so that learners can visualize a representation of what the instructor is saying (p. 112). Visuals are attractive to the eye and help in maintaining the attention of the learners. Visuals also “make it easy to store and retrieve such information” and “serve an organizing function by illustrating the relationships among elements” (p. 112).

The success of a visual depends on the visual literacy of a learner and that learner’s ability to decode and interpret the visual. Visual literacy also requires that the visual is properly encoded by the visual designer. The encoder must follow certain principles when preparing visuals that make it easier for the decoder to decode the visual. Text type, style, size and spacing, the visual composition, balance, and alignment of the elements, the use of complementary and/or analogous color schemes, employing directionals to guide the eye, the proximity principle for displaying related elements, and following the rule of figure-ground contrast (light on dark or
vice-versa) all contribute to the success of a visual. In addition, selecting the appropriate media for the instructional experience merits serious consideration.

In my instructional setting, I typically employ PowerPoint presentations in my instruction. In order to do this, I must utilize my own laptop computer and personal projector. Without my own supplies, I would not be able to utilize these visuals within the classroom since the department has only one classroom with a projector, and one classroom with a computer/projector combination. In addition, since my courses are complemented with WebCT, students can access additional visuals through my WebCT learning platform, or through my Web page. Both have PowerPoint presentations and images that present particular skills.

I also use the trusty overhead projector. It is just as useful for representing abstract concepts in a more concrete fashion. The only problem is that the projector is heavy, and I have to physically check it out of the language lab, carry it to the classroom, and then return it after class. Some days, I feel and resemble a “bag lady” with all my gear and media!

I need to utilize more visuals and consider more creative and innovative ways of integrating visuals regularly into my classroom. I don’t think I use them sufficiently although I use them more than any other professor in the Department! Through just this week’s discussion assignment, more ideas for visuals in my classroom have formed.

As a dynamic example of visual use, in my Public Speaking course, I teach students how advertisements persuade through appealing to one’s ethos, pathos, logos, or mythos. After teaching these concepts to the students, I project still images of magazine and newspaper advertisements on the screen. In a discussion setting, or through group work, students categorize the advertisements by their predominant appeal (ethos, logos, pathos, mythos). Then, through discussion, observations and opinions are shared, and the appropriate appeal is determined. Students thoroughly enjoy this activity and definitely learn the concepts effectively.

My “Bulletin Boards”

In regards to creating bulletin boards, since I have different physical classrooms, a bulletin board would not only be fruitless but also cumbersome for the other professors that utilize the room. My “bulletin board” can be found on my Web page which amongst other things displays my student’s essays and student’s pictures. In addition, I designed the “look” of my WebCT pages which also functions as a “bulletin board” to the students.

Visuals can be very effective for presenting abstract concepts. Unfortunately, few professors in my environment exploit this instructional tool. Traditional lectures and conventional visual-devoid environments are predominant.