

DOCUMENT RESUME

ED 321 805

JC 900 394

AUTHOR Anthony, John; And Others.
 TITLE Engaging Psychology and History in Experiential Learning.
 INSTITUTION Collin County Community Coll., McKinney, TX.
 PUB DATE 90
 NOTE 28p.
 PUB TYPE Reports - Descriptive (141)

EDRS PRICE MF01/PC02 Plus Postage.
 DESCRIPTORS Community Colleges; *Curriculum Design; Curriculum Evaluation; *Educational Innovation; *Experiential Learning; History; Instructional Effectiveness; *Learning Strategies; Psychology; School Business Relationship; Student Attitudes; *Student Centered Curriculum; *Student Participation; Two Year Colleges

ABSTRACT

In order to encourage active participation in the learning process on the part of students, the faculty in the Collin County Community College District (CCCCD) adopted experiential modes of teaching. The specific structure, methods, and content of the experiential component purposely remained individualized to the needs of the subject area and the creativity of the teaching faculty. However, common features characterized the experiential components: they were learner-centered and student-directed; they were perception based; and they placed emphasis on problem-solving, discovery, inquiry, practical application of course content, holistic understanding, and the heuristic process. The experiential component was applied to many disciplines, including accounting, mathematics, humanities, and sociology. Two very different disciplines which were developed and evaluated were psychology and history. The psychology department implemented a laboratory component, extensive writing to learn, classroom research, and business/industrial linkages through internships. The challenges for the psychology department's comprehensive experiential learning process were: physical space to conduct experiments, coordination of laboratory equipment between part-time and full-time faculty and multi-campus; and grading time. The history program required students to create a video documentary in place of the traditional research paper. Other projects which history students completed included a sociological analysis of television shows and historical re-creation. The 1988 CCCC student survey was completed by a broadly representative sample of 750 respondents. Positive student responses and below average withdrawal rates demonstrated the effectiveness of the experiential learning programs. (JMC)

 * Reproductions supplied by EDRS are the best that can be made *
 * from the original document. *

ED321805

Engaging Psychology and History Students in Experiential Learning

by
John Anthony
Martha Ewing
Joe Jaynes
Gerry Perkins

JC 900 394

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

J. A. Anthony

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

- This document has been reproduced as received from the person or organization originating it.
- Minor changes have been made to improve reproduction quality.
- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

BEST COPY AVAILABLE



ENGAGING PSYCHOLOGY AND HISTORY STUDENTS IN EXPERIENTIAL LEARNING
John Anthony, Martha Ewing, Joe Jaynes, and Gerry Perkus

The 1984 report of the National Institute of Education Study Group on conditions of excellence in American higher education entitled "Involvement in Learning" provided the foundation for the teaching-learning approach adopted by the Collin County Community College District (CCCCD). As a new district founded in 1985, the staff was free from the encumbrances of past policies and practices. With this freedom and flexibility in its initial curriculum development, the college had the opportunity to draw from the best educational theory and practice of the past coupled with appropriate new technologies to build a college known for outstanding student-centered instruction.

Our contention, like that of the study group, was that more learning occurs when students are actively engaged in the process. The more time, energy, and effort students invest in the learning process and the more intensely they engage in their own education, the greater will be their growth and achievement, their satisfaction with their educational experience, their persistence in college, and the more likely they will continue their learning after college.

We were convinced that our faculty needed to adopt highly active modes of teaching to encourage active participation on the part of the learner. We knew that lecturing students has long been criticized. The 1985 report, "Integrity in the College Curriculum" (Association of American Colleges), asserts that a

major problem with American college curriculum is that it offers too much knowledge with too little attention to what methods and styles of inquiry led to its creation. According to this report, our college classrooms stifle, instead of encourage imaginative thinking and efforts at synthesis. "A New Vitality in General Education" (Association of American Colleges, 1988) calls for a stronger link between a student's experience inside and outside the classroom. It suggests that teaching should stimulate "active learning" in which the student takes responsibility in the learning process.

Many recently published books highlight the importance of developing students' critical thinking skills. Chet Meyers (1987) notes "college instructors must strive to create a classroom atmosphere in which students' natural inquisitiveness can once again come to the fore"(p.9). Meyers explains that the most important ingredients of critical thinking are "the abilities to make sense of new experiences and to envision possibilities outside one's own immediate experiences"(p.26). Stephen D. Brookfield supports Meyer's concepts as he writes in his book Developing Critical Thinkers (1987): "Critical thinkers are actively engaged in life.... They appreciate creativity, they are innovators, and they exude a sense that life is full of possibilities"(p.5).

The key, therefore, is to make learner response and active participation an essential part of the learning process. Raymond Wlodkowski (1985) summarizes the concept by saying: "When lear-

ners are an inclusive element in the learning process and it cannot continue without their responses, a momentum can be created that keeps learning active and involved" (p.170).

Bob Gowin and Joseph D. Novak (1984), in their book Learning How to Learn, focus on the individuality of the students. "Learning is personal and idiosyncractic.... We are interested in thinking, feeling, and acting - - all these are present in any educative experience and change the meaning of experience. Education is the process by which we actively change the meaning of experience" (p.5).

Recognizing the consensus of these studies for improvement of undergraduate education, Collin County Community College District has focused on active, experiential learning in both the classroom and the laboratory. The integration of newly acquired knowledge with previous learning is improved as is learner motivation and long-term retention.

Our goal was to be unique, not in what we taught, but in how we taught it. One of the major decisions taken by the college to integrate active learning into the curriculum was to establish an experiential component in all disciplines, including liberal arts courses. The focus is on the how rather than merely the what, and on inquiry, critical analysis, synthesis, and abstract logical thinking.

The specific structure, methods, and content of the experiential component purposefully remain fluid and individualized according to the needs of the subject area and the creativity of

the teaching faculty. Six common features, however, characterize the experiential components. First, they are learner-centered and student-directed; second, they place emphasis on problem solving, discovery, and inquiry; third, they emphasize practical applications of course content; fourth, they focus on holistic understanding; fifth, they are perception-based; and sixth, the emphasis is on the heuristic process - learning about learning.

Two disciplines that are very different but that have been developed and evaluated are psychology and history. They are expanded on more fully later in this chapter as representative samples from across the college district. A brief summary of several other disciplines to more fully illustrate the concept of the experiential component is as follows:

1. In order to help cope with the expansion of accounting standards and the selectivity of hiring in the field, Prof. Billie Cunningham has carefully constructed writing assignments to augment the traditional accounting practice sets. In Principles of Accounting I students complete a daily journal in which they answer thought-provoking questions provided by the professor. The questions relate to the day's in-class lecture or discussion. In using these journals, the students think about and better understand difficult concepts that are not being understood through homework problems. These students have a better chance to synthesize what they are learning as they encounter new concepts, rather than being forced to synthesize material 16 weeks later. Also, a byproduct of writing in journals is extra

writing practice and, presumably, better writing skills. These same students, then, will progress to the second Principles of Accounting course and will be assigned a term project involving the analysis of a corporate financial report.

2. Professor Sharon Hosack of the math department has calculus students work in small groups to problem solve. While in the groups, the students discuss as many possible solutions as they can formulate to solve one particular problem. After the group work, each student writes about the process to analyze and synthesize the specific concept of calculus.

3. Students enrolled in Introduction to Humanities not only learn about the arts, but also create. Professor Janet Shriver has students compose music on a synthesizer when they are studying music; create a collage about their philosophy of life when learning about philosophy, and create a short original video when studying twentieth century art.

4. The discipline of sociology affords a variety of experiential options and is a discipline that is fluid in its approach to experiential learning. Professor Gary Hodge has students complete ten application assignments from the twelve topics presented in Introduction to Sociology. These assignments include viewing assigned videos and discussing social forces, social class, subcultures, social norms, primary groups, social stratification, or ethnicity. Another choice involves interviewing people concerning topics such as symbolic meaning, the concept of deviance,

opportunity in America, racial equality, gender development, sex education, or social change. The students record the data from these interviews and write the analysis of their data. A third option incorporates creative thought by requiring students to create a collage about their personality, status, social forces, their primary and secondary groups, impression management, or social labels. These projects encourage the students to work with the subject matter, to relate the material to their own experience, and to evaluate sociological theories from a "real world" perspective.

As a result of the emphasis on active experiential learning, faculty at Collin County were selected on the basis of their ability to involve students in the teaching-learning process. They currently find themselves spending much of their class time as referees, coaches, and mentors rather than as lecturers and discipline-related researchers.

At Collin County we have created classroom environments that encourage students to discuss, examine, question, probe, dissect, and ponder -- processes that foster creative thinking. Instead of performing the lower level cognitive skills of recognition and recall, which are handled better in the computer laboratory, students at Collin County are free to concentrate on higher level development that includes synthesis, analysis, and the ability to integrate and apply knowledge. Students are provided opportunities to puzzle over issues, to sort theoretical information, and to formulate their own independent judgments. "Hands on"

laboratory experiences are provided in most courses to introduce students to various methods of research and inquiry. Additional opportunities for student involvement beyond the classroom and laboratory are provided through practical on-the-job training, internships and cooperative work experience programs.

Learning is not a spectator sport at Collin County. Students learn by doing. They do not sit in classes listening to monologues or memorizing prepackaged assignments and spitting out answers. They interact with their teachers and their subject matter. They talk and write about what they are learning, relating new information to past experiences and applying it to their daily lives. They make what they learn part of themselves.

PSYCHOLOGY PROGRAM

The psychology department at Collin County Community College is committed to implementing student involvement, believing that it is perhaps the most important aspect to improving undergraduate education. There are four elements that the department has employed to try to achieve student involvement: a laboratory component, extensive writing to learn, classroom research, and business/industrial linkages through internships. These four elements are inseparable in our educational process as the laboratory and internships require written reports, and the written assignments demonstrate the student's ability to communicate

knowledge, understand method of inquiry, and give feedback on the learning process.

The department has 900 students enrolled in 36 sections of freshman and sophomore level courses. The department offers seven courses each semester.

A one-hour per week laboratory component has been established for all 3 credit-hour psychology courses. The laboratory component allows the student to integrate theoretical and practical elements of the course promoting cognitive, affective, and behavioral learning through this participatory experience. The laboratory component is fully integrated into the psychology curriculum. By correlating laboratory experience with competency-based course content the lab attempts to insure synthesis of knowledge, creative and critical thinking.

The laboratory centers around the application of learning and on introducing students to the various methods of contemporary research. The lab is not to be confused with a psychology lab that is designed to further research in the field of psychology by the faculty of the college. Rather, it is indeed a teaching tool using classic as well as state-of-the-art psychological experiments to promote application of theoretical psychological course content with the student as researcher.

With each new topic introduced in the General Psychology course, experiments pertaining to the phenomenon are presented to and then carried out by the students. For example, when perception is discussed the Stroop Word/Color Test is employed; when

short term memory is presented a variety of free, serial, and interrupted recall tests are applied to experience the process. Computer simulations are used to demonstrate concepts. When operant conditioning is studied a program entitled "Training a Rat" (Psycom, William C. Brown Publ., 1987) simulates shaping and discriminatory learning. The simulation takes about 1 hour whereas a similar exercise with a rat would take about a month of lab time. Another computer simulation, Dr. Shrink (Neurolitic publ., 1988) demonstrates psychotherapy as well as illustrating to students one of the possible uses of artificial intelligence in psychotherapy.

On several occasions throughout the semester, General Psychology students also design, conduct, and analyze their own brief research projects. Because General Psychology is usually the students' first experience with a behavioral science lab course, the projects involve only a few variables and the data analysis is descriptive. The experimental design is one of the first done at the beginning of the semester where students are randomly assigned to groups and asked to design an experiment. When studying stress, students incorporate computerized biofeedback equipment. An example from one semester is included that shows how the students chose a variety of music to test the hypothesis that music can impact physiological responses. Fear was explored by a survey designed to ask subjects of different developmental stages about their fears, and then an analysis of data was completed to describe these findings. In-

cluded are two different methods of reporting survey results as well as the completed analysis sheet.

The psychology faculty began implementing the laboratory experience in General Psychology in January of 1986 and wrote a laboratory manual. The manual has been revised three times. The manual contains all possible experiments for the semester. It is designed much like a natural science laboratory manual with an instruction page and laboratory report forms. The students turn in the laboratory report forms which involve not only graphing results but also writing about the experimental process and about their opinions of the experiment. The last element of writing allows both the synthesis of affective and cognitive elements of the experiment and a debriefing psychological process for each experiment. Students are asked to answer questions such as: How did you feel while doing the experiment? What is the experiment really trying to prove? Is the experiment really valid in your opinion? and How can you apply this information to your life?

The students complete 20 labs during the fifteen week semester with the individual faculty member and students selecting the projects from the available list. The laboratory element counts 40% of the student's grade for the course. The grade for each experiment is determined by the written responses on the laboratory report form. Holistic grading is employed by all faculty. Students are graded on correctness and accuracy of the experimental process, content of analysis, and progression of thought. Importance is placed on the process to attain answers

and the ability to articulate this process. It is okay for an experiment to fail or reach a different conclusion as long as the student can express the how and why of those answers.

In order to understand how development is shaped in the sophomore level Life-Span Psychology course, laboratory work, observations, and reaction papers have been developed.

The goal of the laboratory projects and observations is to use an interactive method for introducing college students to developmental issues. In the teaching of life-span human growth and development it is vital to have the students learn the intellectual content (theories, research, statistical data, etc.). It is equally important for the student to assimilate the intellectual content to a personal level so that a foundation is laid for further exploration and growth, thus the student becomes better able to implement developmental principles in future professional settings and personal situations.

By simply reading the textbook, professional journals, and listening to lectures, students may learn the intellectual content quite well. However, there seems to be a chasm between what the scholars say and how this applies to the student as an individual. For example, when the professor says in class that several studies on television sex-role portrayals show that unrealistic, stereotyped sexroles permeate T.V. programming and children's T.V. in particular (Barcus 1983, Williams 1981, Santrock, 1989), there would be a few nods of the head. However, when students were asked for personal examples, few

quality, contemporary responses were received.

For this reason, the interactive analysis method has been incorporated into the course. Literature, television, toys, and music video were chosen as elements to be analyzed because students seemed to be less aware of their impact on the development of the individual. Students can readily explain how their parents and peers influenced their development by citing specific actions and examples. (A reaction paper by students on self-concept development illustrates the completeness and competency of this knowledge.) This does not seem to be true for other elements.

The analysis process was also implemented so that students could develop their critical thinking and examine their values as individuals. The critical thinking aspect has turned out to be one of the most important aspects of the process.

Upon completion of the analytical process to explore what the child of 1990 is learning about his/her development, the college students are asked to make a list of their favorite television shows, toys, and books when they were children. Analysis is then completed on these elements by asking the same questions used in the analysis of current children's items. The students are then asked to summarize what they, as individuals, learned about their own development through these elements.

These last analyses are not based on sound research methodology. The analysis is based for the most part on the memories of the students. This is exactly intentional. How they

assimilated these societal elements is much more important in their lives today than the reality of these elements. This phenomenological view point is the gateway to the student's personal and individual re-evaluation of identity and a foundation for further exploration into the field of developmental study. Two examples of student responses are as follows:

Female age 20: "From doing this analysis on my childhood favorites, I realize that my personality, career choice, gender identity, etc. have been greatly influenced by these things in my childhood. I also realize that although I have grown up and changed, much remains the same from my early years. It is up to me to accept or reject what it means to be a woman as prescribed by society."

Male age 25: " Since having to complete this project, I have discovered lots of reasons why it is so difficult to be a young adult male in 1989. Society has changed. I have feelings that I thought a straight male should not experience. My favorite toy was a pooh bear that I slept with and took everywhere until I was 6. I needed it for security and affection. I have never admitted this to anyone until this class. It was not the masculine thing to do. I have found out that I can be nurturing and tender as part of my maleness and part of me. Also women I date are different from what I had been taught and expected. I get confused on what is expected of me and now I think I understand why."

A laboratory manual was completed in the Fall of 1987 for

Life span Psychology. The process is quite similar to that described for General Psychology. In addition to the twenty lab experiments, the students also complete fourteen hours of naturalistic observation of people across the life-span. A two page written account of each observation (two hours in length) is turned in weekly during the semester. The account includes not only what they observed, but also how these observations displayed the theoretical perspectives of developmental psychologists such as Erikson and Piaget. Once again students are graded holistically.

Another aspect of experiential learning in the department involves internships with local business and industry. Internships provide students with supervised practical experience relating to their field of study while they concurrently obtain college course credit. The internships integrate on-campus classroom study with off-campus work experience. Students work 20 hours per week, attend 16 hours of on-campus discussion groups during the semester and write a five-page reaction paper at the end of the semester. Students have been placed with psychologists in private practice, hospitals, corporations, drug prevention programs, city departments, and local school districts.

The challenges to this comprehensive experiential learning process have been:

1. Physical space to conduct the experiments. The problem has been alleviated on one campus with a social science

laboratory. A three room suite was built with 2 laboratory rooms connected by an observation booth. The labs are equipped with computers, audio-visual equipment, one-way mirrors, and moveable furniture. Students also use computers in the Alternative Learning Center and Computer Laboratories.

2. Coordination of laboratory equipment between part-time and full-time faculty and multi-campus. After 2 years of pilot testing we were able to buy more equipment that we know is used regularly by all faculty. Also many computer simulations have been generously supplied to us by textbook publishers.

3. Grading time is the most difficult challenge. An average of two labs per week per section is a great additional burden to all faculty. We try to keep part-time faculty class size to 25 while full-time faculty may have 35-50 per section. On the average, part-time faculty spend 5 hours per week grading labs and full-time faculty spend 12 hours. This grading time does not include preparation time for lectures and labs or grading of tests. We now have one laboratory assistant and one student assistant to assist with coordination and grading.

The biggest asset for our department has been the commitment of the administration to this type of format at the community college level. The President, Vice-President of Instruction, and Dean of Social Sciences have allowed us to experiment with the process in order to tailor it appropriately to the commuter community college population while maintaining credibility with universities and psychological professional organizations. The

financial commitment included building the laboratory and buying related equipment. There has also been a psychological commitment in that the administration has encouraged creativity and excellence in the undergraduate teaching-learning process.

HISTORY PROGRAM

Today's incoming college freshmen were born in 1972. The first president they remember is Jimmy Carter. They have grown up with television, VCRs, and computers. Usually they have not heard of Hubert Humphrey and know very little about Vietnam except from a Hollywood perspective.

On the first day of class students are asked what their interests are and course specific projects are developed based on this information. The process is a learning experience for professor and student. An effort is made to have history, no matter how old the topic, relate to the student. This relationship usually results in a much more stimulating class.

A project that Professor Jaynes discovered to stimulate student interest is video research. To replace the traditional research paper, student create a video documentary about an historical event or time period of their choice. While some create through narrative, most incorporate music of the time period. In creating this video they research file footage regarding their subject from a variety of resources such as the Twentieth Century Video Library. The students then splice the tape and dub in appropriate songs. The resulting video resembles MTV with an

academic twist. The students are more excited over this project than a traditional research paper. The video project also gives them the opportunity to become more creative and exercise critical thinking. Students turn in a written abstract that contains a summary of the project including overall goals and objectives they have tried to achieve in the project. They also must include a reference page for their video. It has become apparent that the video has increased relevance to the student's experience and students discover they work harder on this project than a traditional paper.

Another project students complete is an analysis of television shows. One hundred years from now history students researching the late twentieth century will be using television as a major research tool. Keeping this perspective, students view television shows from the late 1950s to the present and write their perspective. For example, the students imagine themselves as students in 2090 watching a 1953 "I Love Lucy" and see an episode where Ricky spansks Lucy. What would be their conclusion in 2090 on the status of women in the 1950's? This could be reinforced by such shows as "I Dream of Jeannie" or "Bewitched" where women with magical powers are willing to give them up to become housewives. Or what about the "Andy Griffith Show", which portrays a rural southern town without blacks? Another example is the Tarzan movies from the 1940-1950 era in which one white man can defeat thousands of black natives. As is evident, television analysis can be used in many different areas of social

research.

Historical re-creation is another activity for student involvement. This is not a new idea but somewhat avant-garde when applied to recent history. Re-creating the Salem Witch Trials is easy and fun for students and is non-threatening since they took place so long ago. However, when the students re-created a lunch counter sit-in, difficulties arose due to the controversy surrounding the topic and the contemporary time frame. The final documentation of the lunch counter sit-in project was a media presentation tracing the paths of these students who re-created the sit-in as well as interviews inquiring into their pre-mindset and post-mindset with much attention devoted to the metamorphosis in between. The video documented that crossing the line between history and personal experience was very powerful. While listening to lectures and taking notes are comfortable activities for students, role playing a black student sitting in a white restaurant in a southern town in the early 1960s makes history come alive and relevant.

EVALUATION

Although a full-scale evaluation of CCCC's experiential teaching-learning component has not yet been conducted, a number of indicators of effectiveness have emerged over the past couple

of years. These indicators include student comments gleaned from the annual CCCCD Student Survey, the average withdrawal rate in history courses at CCCCD as compared with the rate in all courses in CCCCD and in history courses at colleges that do not have the experiential component, student comments in course evaluations in history and psychology, and a pilot study conducted in psychology. Other studies are being planned.

The 1988 CCCCD Student Survey was completed by 750 respondents, a sample broadly representative of the total student body. One of the several open-ended questions in the survey asked the question, "What do you like best at CCCCD?" In response to this question, a number of students referred to the experiential laboratory component: "The lab has helped me put into practice what I'm learning in class." "I like the teachers, the extra help, labs, etc." "I really like the lab projects. It's hands-on stuff that helps me understand the subject!"

Regarding history, comparative course withdrawal rates provide an indicator of effectiveness of the experiential component. In the Spring semester of 1989, the withdrawal rate in all CCCCD classes was 21%. The withdrawal rate in history courses, all of which included an experiential component, was 15%. In the history courses taught by Professor Joe Jaynes, the withdrawal rate was only 7%. These history withdrawal rates can be contrasted with those in several other Texas community college districts. On the seven campuses of the Dallas County Community College District, the average history withdrawal rate was 24%.

At Delmar College (Corpus Christi) the rate was 27%, and at three campuses of North Harris Community College, the average rate was also 27%.

A key indicator of the effectiveness of the history experiential component in Prof. Jaynes' courses appears in students' responses on the course evaluation form. When asked, "What aspects of the teaching or content of this course do you feel were particularly good?" students responded as follows: "I feel the videos really help. They make a lasting impression and get away from lectures." "I loved the videos. I realized after being in class that watching videos helped me learn." "The videos helped to enhance the class. They bring that year or event to our class to help understand what it was like then." "The videos helped me understand and finally begin to like history."

Also revealing are student's responses to another question on the form: "What comments do you have about other instructional materials used in this course?" Some sample comments: "Joe uses videos that make history more interesting and bearable to the students." "The use of videos brings history alive and leaves a lasting impression of the events." "Some of the humorous videos are overdone. A lot of them make a point about attitudes." "Please incorporate more good reading and videos into all classes."

The psychology program has been evaluated by students, faculty, and administrators as well as local mental health

professionals and several universities (University of Texas at Dallas, University of Tennessee, University of Southern California, and University of California at Los Angeles). The overall evaluation indicated that students learned theoretical material and concepts more completely through the use of the experiential four component process. Recommendations were made which have been incorporated into curriculum revisions. Information regarding the quality of academic work being completed by CCCCD students after transferring to a university is being tracked to help maintain quality of the experiential component and to indicate effectiveness.

A pilot study in Professor Ewing's General Psychology course was conducted in the Spring 1989 semester to discover the extent to which students' completion of laboratory work correlated positively with course test scores. A total of 93 students participated in the study. Scores on the laboratory work of these students were compared with their scores on each of three tests. IQ scores of the students served as an independent variable. These scores reflected a normal distribution. The results of the pilot study revealed a positive correlation, i.e., $R=+.203$. These results were at a significance level of $p=.05$, i.e. one could be 95% confident that the correlation exhibited was accurate.

The laboratory component and manual in General Psychology were evaluated by students. A survey was designed specifically to ascertain students perception of learning in the laboratory.

All students enrolled in General Psychology courses completed the survey, n=472, Spring semester 1987. The results of the student evaluations showed that 92% of the students believed the laboratory section of General Psychology to be helpful in their learning experience and advantageous to the synthesis and application of knowledge.

As in history, an important indicator of the effectiveness of the experiential component in psychology courses appeared in students' responses on the standard course evaluation form. Students responded to the question, "What aspect of the teaching or content of this course do you feel were particularly good?" Some typical comments: "Lectures and labs were always interesting." "The labs helped a lot in understanding the material that was presented." "I feel the lab segments of the class were well-organized and presented in a very suitable fashion." "Discussions were interesting; labs were helpful in proving (or disproving) key ideas or theories."

To the questions, "What comments do you have about other instructional materials used in this course, students responded typically as follows: "The lab book was well-prepared." "Lab book good--enjoyed the assignments used from it." "The lab manual was very helpful as a learning experience in this course." "Really enjoyed all of the labs we did, in lab and in groups."

Currently, a group of faculty from various disciplines, including accounting, English, math, business management, history, psychology, and developmental writing are using classroom re-

search projects to assess experiential teaching-learning. These techniques include minute papers, self-assessment of learning styles, student goals ranking, concept maps, one-sentence summaries, and punctuated lectures-discussions (Cross and Angelo 1988). Obtaining instant feedback on what the students are learning from classroom lectures/discussions as well as from laboratories, video projects, practice sets, guest speakers, internships, and small group processes allow professors to incorporate appropriate experiential techniques and expand where necessary on concepts that students are having difficulty understanding, synthesizing, and /or applying.

Several future studies are being planned to further assess the effectiveness of the experiential component in CCCCD's courses. Using a control group, one study will compare the performance of students taking sections of a particular course which include an experiential component with the performance of students taking sections of the same course which do not include experiential components. In conjunction with this study, separate surveys will be conducted with students and professors assessing the attitudes and experience of these two different populations regarding the experiential component.

As CCCCD continues to grow and mature, we are trying to capitalize on the opportunity of being able to systematically evaluate the pedagogical approach to student involvement in learning.

SUMMARY

The teaching-learning paradigm that is experientially student-centered was integrated into the original curriculum development of Collin County Community College District. As a result of the emphasis on active learning from the college's inception, the college community has been able to observe, ask, review, and evaluate the experiential approach. Based on the data from these sources as well as national research, there appears to be a strong indication that indeed students do learn, grow, persist, and enjoy higher education more when they are actively involved in the learning process.

When students are free to discuss, examine, analyze, and formulate their own independent judgments about academic material, they also have a greater opportunity to synthesize and integrate that knowledge. When students interact with their professors and subject matter in order to understand the methods and styles of inquiry that led to the development of each discipline's knowledge, then students have the opportunity to think critically, and creatively and apply that knowledge to their own lives.

Active, experiential teaching-learning remains the focal point of Collin County Community College District. The uniqueness is not what is being taught, but how it is being taught. Learning is not a spectator sport.

REFERENCES

- Barcus, F.E. (1983). Images on Children's Television. New York: Praeger Scientific Press.
- Brookfield, S.D. (1987). Developing Critical Thinkers. San Francisco: Josey-Bass.
- Cross, P.K. & Angelo, T.A. (1988). Classroom Assessment Techniques: A Handbook for Faculty. Ann Arbor, Michigan: National Center for Research To Improve Postsecondary Teaching and Learning.
- Gibbs, I. & Harland, J. (1987). Approaches to Teaching in Colleges of Higher Education. British Educational Research Journal, 13, 159-173.
- Gowan, B. & Novack, J.C. (1984). Learning How to Learn. New York: Cambridge University Press.
- Integrity in the College Curriculum. (1985). Washington, D.C.: Association of American Colleges.
- Involvement in Learning. (1984). Bethesda, Maryland: National Institute of Education.
- Magdola, M.B. (1987). Experiential Learning and Student Development Theory as Guides to Developing Instructional Approaches. International Journal of Social Education, 1, 28-40.
- Meyers, C. (1986). Teaching Students to Think Critically: A Guide for Faculty of All Disciplines. San Francisco:

Jossey-Bass.

A New Vitality in the College Curriculum. (1988). Washington,
D.C.: Association of American Colleges.

Santrock, J. (1989). Child Psychology. Dubuque, Iowa: Wm.
C. Brown.

Williams, F. LaRosa, R. & Frost, F. (1981). Children, Television
and Sex-Role Stereotyping. New York: Praeger Scientific
Press.

Wlodkowski, R.J. (1985). Enhancing Adult Motivation to Learn.
San Francisco: Josey-Bass.