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ABSTRACT

Thirty postsecondary vocational technical instructors from five community colleges in Virginia were observed using the Flanders Interaction Analysis System for 30 minutes to detect their use of three of four behaviors determined to be enabling to learners. The additional enabling behavior of modeling was determined through 15 minutes of passive observation. The enabling behavior of questioning was found to be used in approximately 4 percent of class time, whereas for 80 percent of class time, instructors were exhibiting structuring behavior. Responding behaviors were practiced by the instructors for about 11 percent of total class time. The study concluded that (1) the community college instructors observed are not using the enabling behavior of questioning that "best" stimulates critical thinking or modeling behaviors that will enhance students' abilities to think critically; (2) the amount of pedagogical course work taken by the teachers did not seem to influence the teachers' use of enabling behavior; and (3) the students thought their instructors were stimulating critical thinking. Further research and more training for college instructors in using enabling behaviors were recommended. (KC)

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ENABLING BEHAVIORS EXHIBITED BY SELECTED VIRGINIA
POSTSECONDARY VOCATIONAL TECHNICAL INSTRUCTORS

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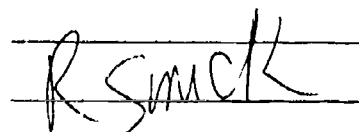
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Enabling Behaviors Exhibited By Selected Virginia Postsecondary Vocational Technical Instructors

Introduction and Statement of Problem

An effective educational program in today's world, whether it be at the elementary, secondary or postsecondary level, must provide the student with more than just a knowledge base. An educational program must develop thinking, as this is the human organism's most basic skill and the most needed in our changing world (Moses, 1985). Specific attention to critical thinking was given by the Education Policies Commission report in The Central Purpose of American Education. The report stated that the school "... must foster not only desire and respect for knowledge but also the inquiry spirit. It must encourage the pupil to ask: How do I know?, as well as, What do I know?" (p. 7) The Commission emphasized the crucial role of the teacher as an enabler who most choose methods and means of developing the ability to think (Education Policies Commission, 1961). In a report by the Study Group on the Conditions of Excellence in American Higher Education, it was recommended that the faculty has as a goal the honing of critical thinking and analysis skills of undergraduates as these capacities and skills are the true lasting effects of a higher education (National Institute of Education, 1984).

Two elements which have been and are currently mentioned in the literature when discussing education and excellence are the teacher and critical thinking. The teacher has a crucial role in the educational setting by serving as the catalyst for producing change in the student. The ability of the teacher to develop critical thinking in students is of utmost importance at all levels of education. While critical thinking is becoming a salient outcome for an educated person, scant research has been found that examines community college teacher behaviors which promote critical thinking.

Theoretical/Conceptual Base and Related Literature

Instruction at the postsecondary level is a forum for the further stimulation of student ideas that were started at the secondary level. Thus, postsecondary schooling should be the perfect place to continue the growth of a student's critical thinking. If excellence in education is the goal, then the development of critical thinking skills has to be an objective of all teachers.

Teaching, learning, and thinking are powerful concepts. They are important aspects of a postsecondary institution's reputation. Students enrolled in a postsecondary institution deserve the best in teaching and they should be able to utilize their learning ability to the fullest. Employment of critical thinking skills by both teachers and students is necessary for quintessential postsecondary education. Recently, the emphasis has been on the behaviors which can aid in the development of a student's critical thinking ability. Researchers such as Bellack, Costa, D. G. Smith, and Cohan have identified teacher behaviors which facilitate critical thinking in students. Costa coined the term, enabling behaviors, which classify specific behaviors that create a classroom environment for critical thinking. The enabling behaviors are questioning, responding, structuring and modeling.

The verbal behaviors of teachers are exceedingly important. Flanders, Amidon & Hunter, and Costa all point to research efforts that find that teachers verbal behaviors directly influence the pupil's verbal behavior. Teachers can consciously regulate their actions to solicit specific behavioral responses in the learner. Verbal classroom interactions stand as the basis for the facilitation of teaching, learning, and thinking.

Research Methods and Procedures

The research design used in this investigation was quantitative and qualitative. Thus, data collection procedures were a combination of both qualitative and quantitative to accomplish the objectives of the study.

The 30 subjects for this study were postsecondary vocational technical instructors from five community colleges in Virginia. The instructors were selected via a proportionate random sampling procedure for participation in the study. The researcher contacted deans of instruction and the individual instructors for permission.

The instrument used to record teacher behaviors in the classroom was Flanders Interaction Analysis System. The Flanders instrument was used for thirty minutes to determine teacher use of three of the four enabling behaviors. The additional enabling behavior of modeling was determined through fifteen minutes of passive participant observation. Field notes were taken during this part of each class session to aid in identifying the behavior of modeling. A questionnaire was given to each instructor after the observation period to obtain demographic data. A brief questionnaire was also distributed to the students in attendance to ascertain their perceptions of the teacher's behavior that stimulate critical thinking.

Findings and Conclusions

Research Objective 1: The enabling behavior of questioning was found to be used approximately 4 percent of the class time while for eighty percent of the class time, instructors were exhibiting structuring behavior. Responding behaviors were practiced by the instructors about 11 percent of the total class time.

Research Objective 2: The enabling behavior scores calculated for each instructor ranged from 1.02 to 1.51 on a scale of 1 to 3, where higher scores reflect behaviors more likely to evoke critical thinking by students. The scores from 1.02 to 1.51 indicated that the range of enabling behaviors exhibited by the instructors was very narrow and that most of the occurrences of the behaviors were of the structuring type. The range of the semester hours of pedagogy was 0 to 53 with a mean of 18 and a mode of 0.

The narrowness of the span of enabling behavior scores did not allow for an association to have significant meaning, even if a modest positive correlation coefficient was found. Therefore, a relationship was not tested, because any statistic calculated would be misleading.

Research Objective 3: Of the 30 instructors observed, 53 percent actively listened to the students. Thirty three percent showed enthusiasm in their presentations in the classroom while 23 percent encouraged or praised their students. Twenty three percent also demonstrated techniques or used technical language which they expected their students to imitate. In allowing for students to solve problems, only 10 percent

of the instructors did so. One instructor specifically asked for students to express their opinions. Ten percent told their students to "think" about a situation or a problem.

Research Objective 4: Mean values for the ten behaviors listed ranged from 3.20 to 3.77 on a Likert scale of 1 to 4 where one equalled never, 2 -infrequently, 3 -moderately, and 4 -frequently. Values for behaviors above 3.5 were found for 5 of the 10 behaviors. The highest value of 3.77 was obtained for the behavior "displays enthusiastic attitude toward subject." A rating of 3.71 was obtained for the behavior "listens to students." The lowest rated behavior was uses "individualized instruction" with a value of 3.20.

Percentages were determined for the series of four yes-no questions asking the students to respond positively or negatively to the instructor's possession of a specific characteristic. Ninety six percent of the students stated that their instructor possessed good speaking ability. In response to whether the instructor had a sympathetic attitude towards students, 87 percent said yes and 13 percent no. Whether the instructor possessed a warm, outgoing personality, 93 percent responded yes. When the students were asked if the instructor possessed expert knowledge in the subject matter, 97 percent indicated an affirmative answer.

Due to the analysis and interpretations of the findings of this study, it is reasonable to conclude that:

- 1.) The postsecondary vocational technical instructors of the five community colleges selected for this study are not using the enabling behavior of questioning that "best" stimulates critical thinking or modeling the behaviors found in the literature that will enhance a student's ability to think critically.
- 2.) The amount of pedagogical training (course work) taken by the postsecondary vocational technical instructors, of the five community colleges selected for this study, does not seem to influence the instructor's use of enabling behaviors.
- 3.) The community college students in this study perceived their instructors to be exhibiting behaviors and possessing characteristics that will stimulate critical thinking.
- 4.) The extensive difference in the perception that teachers were using behaviors that stimulate critical thinking as viewed by the students and the findings by the researcher where teachers were not exhibiting these behaviors indicates that: a) the scales used by the observer and the one used by the students to evaluate the behaviors were too different to make comparisons; or b) the students evaluations were higher due to the halo effect of the presence of the observer in the classroom.

Recommendations

Based on the findings and conclusions of this study, the researcher recommends the following:

- 1.) Additional research is needed to determine if the findings of this study are typical of vocational technical community college instructors statewide.
- 2.) Research similar to this study needs to be conducted on faculty other than vocational technical instructors of the community college to assess their use of enabling behaviors.
- 3.) Community college instructors need to be exposed to instructors in formal course work or in informal workshops that embody and exhibit enabling behaviors, especially questioning and modeling.
- 4.) Research in the area of utilizing community college students' perceptions to determine teacher effectiveness needs to be conducted.