CLASSROOM AS LEARNING CENTERS!

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ABSTRACT

The American institutions of higher learning have had a great deal of success in providing collegiate education for a remarkable high number of individuals. High levels of communication, computational and technological literacy and informational abilities that enable individuals to gain and apply new knowledge and skills as needed, to effectively define problems, gather and evaluate information related to those problems, and develop solutions are the quality of performance indicators in today's college and university graduates. Given the above premise, the question becomes, are we in today's educational arena, training our students to be able to succeed given today's business and industry demands?

INTRODUCTION

In a recent Joint Report on " A Shared Responsibility for Learning (1998)", American Association For Higher Education, American College Personnel Association and National Association of Student Personnel Administrators put forth some Learning Principles. Further, the reports calls on each of the participant groups in the learning process students, faculty, scholars of cognition, administrative leaders, student affairs professional and other staff, alumni, governing boards, community supporters, accrediting agencies, professional associations, families, government agencies and all those involved in higher education, as professionals or as community supporters to view themselves as teachers, learners, and collaborators in service to learning.

This paper will look in depth at the following principle identified in the report above and offer suggestions to turn our classrooms into learning centers. The process, benefits and implications of active learning are explored in this paper. The premise of the paper is the principle "Learning is an active search for meaning by the learner-constructing knowledge rather than passively receiving it, shaping as well as being shaped by the experience."

REVIEW OF LITERATURE

This concept of active learning has been addressed in the literature as early as the 1960s. In his work, (Carl Rogers 1969) has identified two types of leaning: Cognitive (meaningless) and experiential (significant). Cognitive learning, according to Rogers, relates to academic knowledge such as learning vocabulary or multiplication tables. Whereas, experiential learning relates to applied knowledge such as learning about aircraft engines in order to be able to repair them. The major distinction between cognitive and experiential learning is that the latter addresses the needs and wants of the learner. The qualities of experiential learning according to Rogers are:

1. Personal involvement of the learner,
2. Learning initiated by the learner,
3. Learning is evaluated by the learner, and
4. Learning has pervasive effects on the learner.

Rogers equates experiential learning to personal change and growth. Rogers also feels that human beings have a natural propensity to learn and the role of teachers is to facilitate such learning. Teachers should accomplish this by setting a positive climate for learning, clarifying the purposes of learning, organizing and making available learning resources, balancing intellectual and emotional components of learning and sharing feelings and thoughts with learners in a non-dominating manner.
Policymakers (state and federal) and leaders in education and business have also discussed and evaluated the quality of undergraduate education in the United States. The basic tenet was that our educational process needs a great deal of improvement in order to meet the demands imposed by the businesses and industries today (About Teaching...1995). An outgrowth of this conference was a list of characteristics of quality performance to be attributed to today's college and university graduates: high level communications, computational and technological literacy, and informational abilities that enable individuals to gain and apply new knowledge and skills as needed, the ability to arrive at informed judgment, that is, to effectively define problems, gather and evaluate information related to those problems, and develop solutions, the ability to function in a global community-a range of attitudes and dispositions including: flexibility and adaptability, ease with diversity, motivation and persistence (for example, being a self starter, ethical and civil behavior, creativity and resourcefulness, ability to

work with others, especially in team settings, technical competence in a given field, demonstrated ability to develop all of the above to address specific problems in complex real world settings, in which the development of workable solutions is required. Given the above premise, the question becomes, are we in today's educational arena, training our students to be able to succeed given today's business and industry demands?

OUR CHALLENGES AND RESPONSIBILITIES AS FACULTY MEMBERS

The University of Delaware Institute for Transforming Undergraduate Education (ITUE) endorses the following principles in undergraduate courses:
1. Courses should help students think critically and enhance their abilities to analyze and solve real world problems,
2. Courses should develop skills in gathering and evaluating information needed for solving problems,
3. Students should gain experience working cooperatively in teams and small groups, and
4. Students should acquire versatile and effective communication skills.

The Institute also suggests that undergraduate courses must be student centered encouraging students to "learn to learn" by applying technology effectively to enhance learning and provide a variety of opportunities to learn. This becomes more germane when we examine the techniques employed by the majority of teachers in today's classrooms.

TRADITIONAL TEACHING APPROACH

We can identify the traditional/classical teaching approach by the following characteristics:
1. Classes are generally conducted in lecture or discussion formats where, topics of discussion are pre-determined by the instructor,
2. In some instances, cases are used to examine and review the concepts that are being discussed or learned,
3. The instructor decides what topics will be addressed, lectured on, discussed and learned,
4. The instructor decides how the topics are to be addressed, what textbooks and reference materials are to be read,
5. The instructor decides what topics are to be tested, the type of examinations to be administered, and the nature of the rewards (grades) are predetermined.

Let us elucidate the traditional or classical approach to classroom education as it is now. Lectures and discussions identify topics that need to be covered in classes and the teacher outlines the nature and the extent of the coverage. The topics are preset and the content delivery may or may not allow students to "think on their feet." The "Case approach" on the other hands brings together previously learned concepts and knowledge and allows students to focus on the applications of these concepts in a predefined business setting. This traditional method of exchange of information often times stymies the "critical thinking" abilities of students. The learning that takes place is largely forgotten outside the particular subject based classroom environment. Many problems have been associated with learning that occurs through group projects (McCorkle et al 1999). These include free riding/social loafing, inadequate rewards, skills and attitude problems, transaction-costs problems, integrative learning problems, poor product quality, lack of individual innovation, pacing of the project workload, and not enough timely feedback to improve the quality of work. In addition, these problems are magnified by the lack of covariance in the student members within the groups themselves. However, many of the potential negative "side effects" of group projects, provide students the opportunities to experience real world group dynamics and problem solving.
Thus, the role of the teacher in the traditional or classical teaching scheme is to set up the framework for learning through a highly structured set of subjective criteria and ensure that learning takes place through lectures, discussions, examinations, and presentations that finally translate to a "grade." Thus many of the activities in the classroom are driven by student outcomes that manifest in letter grades. Whether actual learning has taken place is a highly debatable (scarcely measured in real terms) and a volatile element of concern.

A NEW LEARNING APPROACH

Problem Based Learning (PBL) is an educational methodology, whereby, the students create a learning environment where "a problem" (a real world scenario) drives learning. Prior to students acquiring knowledge through learning, they are posed with a problem that requires them to learn new information and knowledge before they are able to understand and work with the problem. Students generally work collectively to develop their own theories and identify learning goals of their own. Finkle and Torp (1995), state "Problem Based Learning is a curriculum development and instructional system that simultaneously develops both problem solving strategies and disciplinary knowledge bases and skills by placing students in the active role of problem solvers confronted with an "ill-structured" problem that mirrors real-world problems".

PBL is a model that uses a genuine "ill structured" problem as a driving force for learning. The reason for acquiring new knowledge is predetermined by the posed problem. This type of situation fosters and motivates students by learning in the context of "need to solve a problem". PBL learners are given more and more responsibilities for their own education and become increasingly self-ruling, unregimented and independent of the teacher for their education. Students are provided with a list of tasks to be carried out during the learning process. These tasks include: determine whether a problem exists, understand the problem through brainstorming and articulate an exact statement of the problem, identify the information already known and needed to evaluate the problem, identify resources that need to be used to gather information regarding the problem at hand, evaluate the problem through outlining and categorizing the variables and/causes, determine/establish learning goals from analyses in relation to existing knowledge, and summarize relevant findings amongst the group members.

The characteristics of PBL are that it is student oriented, group learning through meetings, students determine how to accomplish/complete the various tasks assigned, students determine what books to read and what literature and resources to consult for task completion, and learning occurs over a period of time while the task is being completed. PBL properly administered, should accomplish activation of the existing knowledge, and allow students to acquire knowledge that is better retained. Knowledge retention is achieved through development of learning goals. The problem analysis uses existing knowledge, develops a learning strategy, allows learning to analyze different problems and identifying various information needs, allows using various theoretical underpinnings and develops viewpoints in conjunction with a problem, and the sharing and expressing of knowledge with others.

IMPLEMENTATION OF "PBL" IN CLASSROOMS

Active Participation by the learner is a key element in productive learning and can be accomplished by:
1. Designing instructional methods **involving students directly** in the discovery of knowledge,
2. Incorporating learning materials that challenge students to **transform prior knowledge and experiences** into new and deeper understandings,
3. Requiring students to **take responsibility** for their own learning,
4. Encouraging students to **seek meaning** in the context of **ethical values and commitments**, and
5. Incorporate assessments based on students' abilities to **demonstrate competencies and use of knowledge**.

Faculty and staff then become facilitators in the **active search for meaning** by:
1. Expecting and demanding student participation in activities in and beyond the classroom,
2. Designing projects and tasks through which students apply their knowledge and skills, and
3. Building programs that feature extended and increasingly challenging opportunity for growth and development.

The fundamental assumption prior to implementing PBL is that all the constituents in the learning process, the faculty, students, and the administrators are ready for a total paradigm shift in thinking of "what constitutes learning?" This means a total rethinking of the concepts of "what, why, how, when, where, and how much" of "Learning."
Implementation of PBL in classrooms needs a great deal of preparation for all the elements in the process. It is understood that problem based learning is not an approach which can be successful at all levels. It is most effectively used in senior level and graduate marketing/business courses. The major elements in the PBL process are the problems, the students, faculty, the environment itself in which the process is to be implemented and the constant and continuous interaction/feedback between the above elements. The problem posed needs to be a reflection of "the real world". Students need to realize the coexistent nature of the problem and the reality in which they are to operate. The problem needs to reflect currency with existing business practices rather than what may have happened a decade ago. The problem needs to engage the students into a challenge mode to understand the situation. That is, the students must be able to learn from each other's experiences and be able to generalize from the specific problem situation to develop more rigorous knowledge and understanding.

IMPLEMENTATION: "THE HOW TO"

In order for PBL to be effective in our classrooms, a few prerequisites need to be met. Students need to have some basic understanding of some of the concepts and elements of the subject matter. Faculty members will need a great deal of up front preparation to pull this off. Each subject area has to be divided into a number of "LEARNING MODULES". Each Learning Module will have a set of "COMPETENCY GOALS" or "A SET OF LEARNING GOALS". Based on these learning/competency goals, the instructor will design a very ambiguous problem that parallels a real situation. This

necessitates that PBL may be effective at the capstone course levels, instructors in all the functional areas of business need to have input into the nature of the "ill structured problems" and modules designed for PBL, students need to be given the tasks and responsibilities of setting their own learning goals, the students need to be divided into groups of 10 or so and each group needs to have a trained instructor or a facilitator to act as catalyst to enhance the learning process, the progress of the students needs to be monitored in such a way that learning is encouraged and fostered through coaching rather than lectures and instructor designed discussions, the foci of the exercises need to be identifying problem solving techniques and not necessarily specific outcomes or solutions for the "ill structured problem", students need to have access to information that aid learning and expand their knowledge bases. Once students get a taste of this new way to acquire knowledge and learn the excitement needs to be nurtured through added reinforcements of recognition. In time, the entire curriculum may need to be revamped to reflect the overall commitment to encourage PBL.

Once the learning goals are established, the role of the faculty member becomes one of a facilitator, to encourage the learning process to begin in the students. The students will be assigned to groups and instructed to set up new learning goals defining the tasks that will allow them to address the ill stated problem. The student groups will have specified amounts of time to complete the various tasks that have been identified through group interaction. The instructor will ensure the group learning process is nurtured and not controlled and guard the quality of discussion. Constant mentoring of students in groups is a must for PBL to thrive. Once the tasks have been completed the information will be disseminated and shared with the class through presentations and discussions. The effectiveness of learning is enhanced through rotating group leadership responsibilities within each group.

CONCLUSIONS AND IMPLICATIONS

The PBL method may not work in every course offered in the marketing and business curricula. A great deal of up front work needs to be performed in order to ensure the success of learning through PBL. At this time, this method of learning is being implemented in graduate education at a few select institutions in the U.S. However, with proper guidance, PBL can be implemented in select undergraduate senior level courses in marketing and other functional areas of business.

REFERENCES

"Powerful Partnerships: A Shared Responsibility for Learning".
A Joint Report for American Association for Higher Education, American College Personnel Association and National Association of student Personnel Administrators, June 1998.

ABOUT TEACHING -- #47.
A Newsletter of the Center for Teaching Effectiveness, January 1995, University of Delaware—
http://www.udel.edu/pbl/cte/jan95-edit.html

Rogers, Carl (1969).
Freedom to Learn. Columbus, OH. Merrill

ITUE: http://www.udel.edu/inst/

Finkle S.I. & Torp L.L.
(1995) Introductory Documents, (Available from the Center for Problem Based Learning, Illinois Math & Science Academy, 1500 west Sullivan Road, Aurora, IL 60506-1000.

McCorkle, et.al (1999).
Undergraduate Marketing Students, Group Projects, and Teamwork: The Good, The Bad, and The Ugly? Journal of Marketing Education, 21, 2, 106-117