PROPOSING INNOVATIVE LEARNING WITH ACTIVE LEARNING

IN THE CLASSROOM

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Abstract: Research consistently has shown that traditional lecture methods, in which teachers/lecturers talk and students listen, dominate college and university classrooms. It is therefore important to know the nature of active learning, the empirical research on its use, the common obstacles and barriers that give rise to faculty members' resistance to interactive instructional techniques, and how faculty, faculty developers, administrators, and educational researchers can make real the promise of active learning. Instead of some examples of active learning are provided below, cooperative learning technique is the main focus as one of technique that the writers exposed. To conclude, the active learning is an alternative teaching to increase the quality of graduates. The use of active learning approach can increase the quality of teaching and learning.
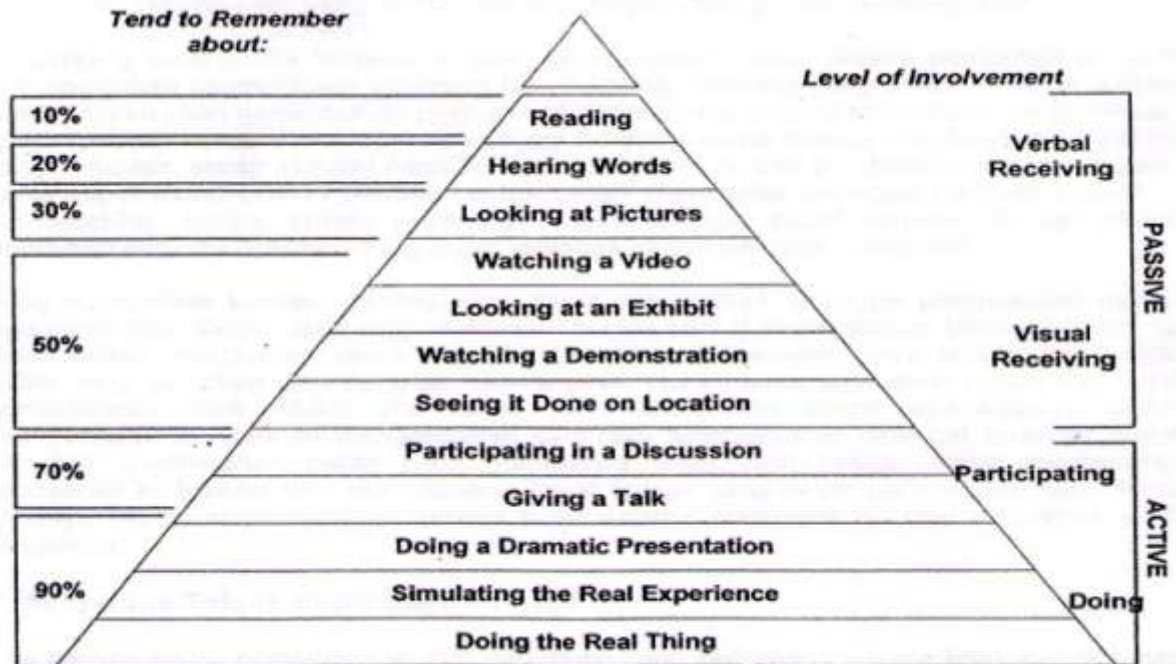
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I. INTRODUCTION

Teaching is not only about explaining which transferring the knowledge automatically to the students' brain, but teaching and learning needs the mental involvement and students' work themselves. Active learning can give good contribution in students' learning achievement. The question is "what makes the learning active?" to answer this question the students must do many assignments, they must use their brain, analyzing, solving problems, and applying what they learnt. Active learning must be joyful and exciting (Silberman, 2006).

There are numerous findings expose that the quality of language process will increase if the atmosphere of the class gives opportunities to the students in expressing their ideas, asking question, discussion, and using the knowledge they got actively. So, the students tend to understand more and remember the new knowledge.

Various approaches, methods, and techniques can be used in teaching and learning process, but generally those can be categorized in two models: Active and Passive learning. The description of two models is as follows

Tend to Remember about:

10%	Reading
20%	Hearing Words
30%	Looking at Pictures
	Watching a Video
	Looking at an Exhibit
50%	Watching a Demonstration
	Seeing it Done on Location
70%	Participating in a Discussion
	Giving a Talk
	Doing a Dramatic Presentation
90%	Simulating the Real Experience
	Doing the Real Thing

Level of Involvement

Verbal Receiving — Visual Receiving — PASSIVE

Participating — Doing — ACTIVE

The picture shows two models of learning: active and passive learning. It also shows that the active learning model tends to make students remember more (retention rate of knowledge) the course. Therefore, the active learning model is an alternative approach to increase the quality of graduates. The use of active learning techniques can increase the quality of teaching and learning.

II. DISCUSSION

2.1. What is Active Learning?

Active learning happens when learners are given the opportunity to take a more interactive relationship with the subject matter of a course, encouraging them to generate rather than simply to receive knowledge. In an active learning environment, trainers facilitate rather than dictate the trainees' learning.

Surprisingly, educators' use of the term "active learning" has relied more on intuitive understanding than a common definition. Consequently, many faculties assert that all learning is inherently active and that students are therefore actively involved while listening to formal presentations in the classroom. Analysis of the research literature (Chickering and Gamson, 1987), however, suggests that students must do more than just listen. They must read, write, discuss, or be engaged in solving problems. Most important, to be actively involved, students must engage in such higher-order thinking tasks as analysis, synthesis, and evaluation. Within this context, it is proposed

that strategies promoting active learning be defined as instructional activities involving students in doing things and thinking about what they are doing.

2.2. Characteristics of Active Learning

According to Bonwell (1995), active learning has some characteristics as follows:
- Learning process emphasis is not focusing on delivering information, but developing students' critical thinking and analysis.
- Students do not only listen the lecturing passively, but also do something related to their course actively.
- The stressing in teaching and learning is in values exploration and attitudes related to the course.
- The students must think aloud, analyze, and evaluate their learning.
- Feedback will be given directly and faster to the students in the teaching and learning process.

Beside those characteristics, generally active learning can be described as follow, (1) the interaction in teaching and learning process can increase positive interdependence of students, in which the students learn together to consolidate the knowledge through active exploration in learning; (2) each student must involve actively in teaching and learning process, and the teacher assesses each student for individual accountability; (3) the active learning process needs high cooperation teacher-students and among students to increase social skills.

While quality of learning is increasing, the mastery of the course is increasing too. Thomas' study (1972) shows that after 10 minutes lecturing, the students tent to lose their concentration to listen the lecturing. Of course, it is ineffective to continue the teaching and learning process without effort to solve it. By using techniques in active learning, the teacher can avoid the problem. The students' participation in teaching and learning process can decrease the students' boring and increase their motivation to learn. Finally, the teaching and learning process can achieve high learning outcomes.

2.3. How can Active Learning be Incorporated in the Classroom

The modification of conventional lectures is one way to incorporate active learning in the classroom (Penner, 1984). Research has demonstrated, for example, that if a faculty member allows students to consolidate their notes by pausing three times for two minutes each during a lecture, students will learn significantly more information (Ruhl, Hughes, and Schloss, 1987). Two other simple yet effective ways to involve students during a lecture are to insert brief demonstrations or short, ungraded writing exercises followed by class discussion. Certain alternatives to the lecture format further increase student level of engagement are (1) the feedback lecture, which consists of two mini-lectures separated by a small group study session built around a study guide, and (2) the guided lecture, in which students listen to a 20-to-30-minutes presentation

without taking notes, followed by their writing or five minutes what they remember and spending the remainder of the class period in small groups clarifying and elaborating the material.

Discussion in class is one of the most common techniques promoting active learning. If the objectives of a course are to promote long-term retention of information, to motivate students toward further learning, to allow students to apply information in new settings, or to develop students' thinking skill, then discussion is preferable to lecture. Research has suggested, however, that to achieve these goals faculty must be knowledgeable of alternative techniques and strategies for questioning and discussion (Hyman, 1980) and must create a supportive intellectual and emotional environment that encourages students to take risks (Lowman, 1984).

Several additional techniques promoting active learning have been similarly shown to influence favorably students' attitudes and achievement. Visual-based instruction, for example, can provide a helpful focal point for other interactive techniques. Other active learning techniques worthy of instructors' use include think-pair-share, case studies, students' debate, minute papers, brainstorming, and cooperative learning. The more explanation will be presented in the following sub-chapter.

2.4. Some Techniques of Active Learning

This paper discussed some techniques of active learning, but the writers are more focusing on cooperative learning technique as an example.

2.4.1 Think-Pair-Share

Think-pair-share is a simple activity you can use in any classroom format. Give the learner time to think about a topic, turn to their neighbor for a short discussion, and then share the results with the rest of the learners.

2.4.2 Case Studies

Case studies use real-life stories that describe what happened to a community, family, work, or individual to prompt learners to integrate their newly-learned knowledge with their knowledge of real-world situations, actions, and consequences.

2.4.3 Students Debate

Students debate give opportunity to the students to express their argument to the some controversial issues. Usually the activity is in the forms of grouping. Each groups should defends on the argument to defeat another group argument. The technique can make students to think effectively to many topics, so they have strongly understanding with many issues. The very important process is that students can do self explanation and students tutoring to each other.

2.4.4 Minute Papers

This technique gives opportunity to the students to express their understanding and also some problem that they don't understand yet. Students can synthesize the material provided before. In the end of the study, student should answer some questions to check their understanding about the lesson. Some example questions are:

1. What have you learnt today?
2. What material don't you understand yet?

2.4.5   Brainstorming

Brainstorming is another simple technique that can involve the whole class in a discussion. Introduce a topic or problem and then ask for the learners input, which you record on the board.

2.5.   Cooperative Learning as One of Active learning method

Many experts give variety definitions of cooperative learning but certain features are common for them. For language learning context, cooperative learning can be defined as a class grouping of students who learn to work together on specific tasks or projects in such a way that all students in the group benefit from the interactive experience. It offers to organize the group works to enhance learning and increase academic achievement (Olsen and Kagen in Kessler, 1992:1). Jacob (1999: 13) describes cooperative learning is a diverse group of instructional methods in which small groups of students work together and aid each other in completing academic tasks. It is carefully structured or organized so that each learner interacts with others and all learners are motivated to increase each other's learning.

According to Slavin (1995: 2), cooperative learning refers to a variety of teaching methods in which students work in small group to help one another learn academic content. In cooperative classrooms, students are expected to help each other, to discuss and argue with each other, to assess each other's current knowledge and fill in gaps in each other understands. Cooperative work rarely replaces teacher instruction, but rather replaces individual seatwork, individual study and individual drill. When properly organized, students in cooperative groups work with each other to make certain that everyone in the group has mastered the concepts being taught. In the cooperative classroom, the student-centered learning is stressed more rather than teacher-centered. So, students involve actively in the teaching and learning process.

Five principal Student Team Learning methods have been developed and extensively researched. Three are general cooperative learning methods adaptable to most subjects and grade levels, namely: Students Teams-Achievement Division (STAD), Teams-Games-Tournaments (TGT), and Jigsaw. The remaining two are comprehensive curricula designed for use in particular subjects, namely: Cooperative Integrated Reading and Composition (CIRC) for reading and writing instruction and Team Accelerated Instruction (TAI) for mathematics. All five methods incorporate team rewards, individual accountability, and equal opportunities for success, but in different ways.

Effective cooperative learning method has seven basic components, namely positive interdependence, individual accountability, promotive interaction, social skills, group processing, structures, and heterogeneous grouping. Many studies related to cooperative leaning have been conducted (Slavin, 1995). Overall finding suggests that across a wide range of subject areas and age group, cooperative methods produce superior results compared to other teaching methods on measurement of such variables as (1) achievement, (2) self-esteem, (3) liking for school, (4) intergroup relations, and (5) use of higher level of thinking.

Besides the strength, cooperative learning has also some weaknesses. Arends (1994) states that using cooperative learning models can be difficult for a beginning teacher because it requires the simultaneous coordination of a variety activities. He also says that cooperative learning lesson take more time than most other instructional models because they rely on small group instruction. Besides it takes much time to complete the tasks because some of the students are not active and there are many variations of activities.

2.6.   Why Active Learning is Important?

Research has shown that active learning is an exceptionally effective training technique. Regardless of the subject matter, when active learning is compared to traditional teaching methods (such as lecture), participants learn more material, retain the information longer, and enjoy the seminar more. Active learning allows adult learners to learn in the classroom with the help of the trainer and other participants, rather than on their own.

Use of 'active learning' in the classroom is vital because of their powerful impact upon students' learning. For example, several studies have shown that students prefer strategies promoting active learning to traditional lectures. Other research studies evaluating students' achievement have demonstrated that many strategies promoting active learning are comparable to lectures in promoting the mastery of content but superior to lectures in promoting the development of students' skills in thinking and writing. Further, some cognitive research has shown that a significant number of individuals have learning styles best served by pedagogical techniques other than lecturing. Therefore, a thoughtful and scholarly approach to skillful teaching requires that faculty become knowledgeable about the many ways strategies promoting active learning have been successfully used across the disciplines. Further, each faculty member should engage in self-reflection, exploring his or her personal willingness to experiment with alternative approaches to instruction.

2.7.   What are the Barriers?

To address adequately why most faculty have not embraced recent calls for educational reform, it is necessary first to identify and understand common barriers to instructional change, including the powerful influence of educational tradition; faculty self-perceptions and self-definition of roles; the discomfort and anxiety that change creates; and the limited incentives for faculty to change.

But certain specific obstacles are associated with the use of active learning including limited class time; a possible increase in preparation time; the potential difficulty of using active learning in large classes; and a lack of needed materials, equipment, or resources.

Perhaps the single greatest barrier of all, however, is the fact that faculty members' efforts to employ active learning involve risk--the risks that students will not participate, use higher-order thinking, or learn sufficient content, that faculty members will feel a loss of control, lack necessary skills, or be criticized for teaching in unorthodox ways. Each obstacle or barrier and type of risk, however, can be successfully overcome through careful, thoughtful planning.

III.   CONCLUSIONS AND SUGGESTIONS

The reform of instructional practice in higher education must begin with faculty members' efforts. An excellent first step is to select strategies promoting active learning that one can feel comfortable with. Such low-risk strategies are typically of short duration, structured and planned focused on subject matter that is neither too abstract nor too controversial, and familiar to both the faculty member and the students.

Faculty developers can help stimulate and support faculty members' efforts to change by highlighting the instructional importance of active learning in the newsletters and publications they distribute. Further, the use of active learning should become both the subject matter of faculty development workshops and the instructional method used to facilitate such programs. And it is important that faculty developers recognize the need to provide follow-up to, and support for, faculty members' efforts to change.

Academic administrators can help these initiatives by recognizing and rewarding excellent teaching in general and the adoption of instructional innovations in particular. Comprehensive programs to demonstrate this type of administrative commitment should address institutional employment policies and practices, the allocation of adequate resources for instructional development, and the development of strategic administrative action plans.

Equally important is the need for more rigorous research to provide a scientific foundation to guide future practices in the classroom. Currently, most published articles on active learning have been descriptive accounts rather than empirical investigations, many are out of date, either chronologically or methodologically, and a large number of important conceptual issues have never been explored. New qualitative and quantitative research should examine strategies that enhance students' learning from presentations; explore the impact of previously overlooked, yet educationally significant, characteristics of students, such as gender, different learning styles, or stage of intellectual development; and be disseminated in journals widely read by faculty.

In retrospect, it appears that previous classroom initiatives and written materials about active learning have all too often been isolated and fragmented. The resulting pedagogical efforts have therefore lacked coherence, and the goal of interactive classrooms has remained unfulfilled. Through the coordinated efforts of individual faculty, faculty developers, academic administrators, and educational researchers, however, higher education in the coming decade can make real the promise of active learning. Cooperative learning – as a one of the examples of active learning – is highly recommended to practice in classroom.

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