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The concept of Active learning in the 21st Century: Who is active and what is considered as ''active'' in Active learning?

Anchunda Henry Yuh*
Wichian Thamrongsotthisakul**

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ABSTRACT

Active learning is an unavoidable approach to teaching and learning in the 21st century. It gives learners an opportunity to actively participate in the learning process in order to attain the stated learning objectives. The purpose of teaching and learning is to enable the learners to understand the concepts and subject matter as well as develop specifically required skills. Effective understanding and development of skills will come from active participation as well as collaboration of learners in planning and participating in the learning process. Learners understand better when they actively and collaboratively participate in planning and developing their own knowledge. During active learning, the teachers is actively active as a facilitator, coacher, and scaffolder as well as bringing in different and new methods that will maximize learning in learners. Learners must be active at all levels and in all spheres; that is; physically active, intellectually active, socially as well as emotionally active.

Keywords : Active Learning / Teachers / Learners / Physically Active / Intellectually Active / Socially Active / Emotionally Active

*Student, Faculty of Education, Naresuan University
**Lecturer, Faculty of Education, Naresuan University

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Introduction

Some scholars see active learning as writing instead of listening, others see it as speaking instead of listening or engaging students in the learning process. The problem here is that they do not state the extent to which the teachers and students should be involved in active learning as well as show clearly what is involved in active learning. Therefore, a series of questions come to mind. What if the students write without contributing? What if the students speak without thinking? What if the students are forced by the teachers to get involved in the learning process or if not, they will be punished? and what if the students get involve because they see their friends getting involved and they don't want to stay alone? What if the students' engagement in the learning process is not directed towards attaining the learning objectives? Are all the above mentioned activities considered to be active learning? How do we measure the students' level of activeness in active learning? Most definitions of active learning by different scholars do not mention teachers as an active member in the active learning process. Are teachers active during the learning or only the students are active?

The concept of active learning

The term active learning "was introduced by the English scholar R. W. Revans (1907–2003)." Bonwell (1991) "states that in active learning, students participate in the process and students participate when they are doing something besides passively listening. Many educators today agree that students learn more in an active learning environment than they do in a passive learning environment. Some scholars refer to this term as student-centered, or learner-centered learning, where students play an active role in their learning, with the teacher as a facilitator in the learning process, rather than an instructor.

Active learning has been identified as one of the seven principles of good practice in education (Chickering & Gamson, 1987). For learning to be active, students must do more than 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." Students must be doing things, and then thinking about why they are doing them. These kinds of activities can include case study, "cooperative learning, debates, drama, role playing and simulation, and peer teaching (Bonwell & Eison, 1991). According to Felder and Brent, as little as five minutes of active learning activities per fifty-minute class session can boost learning significantly. The benefits can be as simple as waking students up after a dry or heavily technical lecture.

According to Bonwell and Eison, (1991), active learning refers to instructional activities involving students in doing things and thinking about what they are doing. According to them, active learning as 'anything that involves students in doing things and thinking about the things they are doing' Active learning involves providing opportunities for students to meaningfully talk and listen, write, read, and reflect on the content, ideas, issues, and

ปีที่ 26 ฉบับที่ 2 เมษายน - มิถุนายน 2563 ISSN 2408-0845 (Print) ISSN 2651-1487 (Online)

concerns of an academic subject. (Meyers & Jones, 1993, p. 6). Approaches that promote active learning focus more on developing students' skills than on transmitting information and require that students do something such as reading, discussing and writing that requires higher-order thinking. They also tend to place some emphasis on students' explorations of their own attitudes and values.

According to Freeman et al., (2014), active learning emphasizes students' use of higher order thinking to complete activities or participate in discussion in class. The core elements of active learning are student activity and engagement in the learning process. 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. Active learning coordinates with the principles of constructivism which are, cognitive, meta-cognitive, evolving and affective in nature. Constructivist learning theory emphasizes that individuals learn through building their own knowledge, connecting new ideas and experiences to existing knowledge and experiences to form new or enhanced understanding (Bransford, et al., 1999). The theory, developed by Piaget and others, posits that learners can either assimilate new information into an existing framework, or can modify that framework to accommodate new information that contradicts prior understanding. Approaches that promote active learning often explicitly ask students to make connections between new information and their current mental models, extending their understanding. Active learning helps create an excitement and engagement during the learning process, which helps build a desire to gain more knowledge. In some cases, teachers may design learning activities that allow students to confront misconceptions, helping students reconstruct their mental models based on more accurate understanding.

Active learning approaches also often embrace the use of collaborative and cooperative learning groups, a constructivist-based practice that places particular emphasis on the contribution that social interaction can make. Lev Vygotsky's work elucidated the relationship between cognitive processes and social activities and led to the sociocultural theory of development, which suggests that learning takes place when students solve problems beyond their current developmental level with the support of their instructor or their peers (Vygotsky 1978). Thus active learning approaches that rely on group work rest on this sociocultural branch of constructivist learning theory, leveraging peer-peer interaction to promote students' development of extended and accurate mental models. According to him, active learning approaches help students learn more effectively than transmissionist approaches in which instructors rely on "teaching by telling." Haak, et al., (2011), explained the importance of active learning approaches as an effective tool in making classrooms more inclusive. During active learning, the learners actively participate physically, intellectually, socially and emotionally. Several studies show that students' achievement have demonstrated

Vol.26 No.2 April - June 2020 ISSN 2408-0845 (Print) ISSN 2651-1487 (Online)

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. Active learning activities can include case study, cooperative learning, debates, drama, role playing and simulation, and peer teaching (Bonwell & Eison, 1991). Therefore, active leaning simply means any instructional method that engages students in the learning process. The students are not only physically active but they are physically active, intellectually active, socially active and emotionally active. Active learning shifts the focus from the teacher and delivery of course content to the student and active engagement with the material. Through active learning techniques and facilitation by the teacher, students shed the traditional role as passive receptors and practice how to apprehend knowledge and skills as well as use them meaningfully. This can be done through activities such as class discussion, small group discussion, debate, posing questions to the class, think-pair-share activities and short written exercises and polling the class. In other words, for learning to be considered active, learners not only need to do something but also need to reflect on what they are doing. Active learning is learner-centered “Involving students in doing things and thinking about what they are doing. Active learning coordinates with the principles of constructivism which are, cognitive, meta-cognitive, evolving and affective in nature. Active learning helps create an excitement and engagement in the classroom, which helps build a desire to gain more knowledge. Therefore, in active learning, the learners actively participate physically, intellectually, socially and emotionally. Physically, the learners should be present during the learning process in order to work with peers to attain the learning objectives. Intellectually, the learners should be able to think critically and share new and educative ideas to friends. Socially and emotionally the learners should be able to develop the skill for collaborative and cooperative team work as well as be able to work together with their friends. Finally, learning should be emotionally. That is; the students should work based on their area of interest, what they love to do and what the wish to know and not because they are forced to work. During active leaning the teachers doesn’t force the students to work but the students force the teachers to give them guiding ideas on what the feel interesting to learn. The core elements of active learning are students’ activity and engagement in the learning process. They must be completely involved at levels in the learning process. Most important, to be actively involved, students must engage in such higher-order thinking tasks as analysis, synthesis, and evaluation. Active learning coordinates with the principles of constructivism which are, cognitive, meta-cognitive, evolving and affective in nature. Constructivist learning theory emphasizes that individuals learn through building their own knowledge, connecting new ideas and experiences to existing knowledge and experiences to form new or enhanced understanding (Bransford, et al., 1999). The theory, developed by Piaget and others, posits that learners can either assimilate new information into an existing

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framework, or can modify that framework to accommodate new information that contradicts prior understanding.

Who is active in active learning?

The definition of active learning by most scholars focus on the engagement of students during the learning process without taking into consideration the role of the teachers in the learning process. Active learning or student-centered instruction is an instructional approach in which students influence the content, activities, materials, and pace of learning. This learning model places the student (learner) at the center of the learning process. During the learner-centered classroom situation, students are actively learning and they have greater input into what they learn, how they learn it, and when they learn it. This means that students take responsibility of their own learning and are directly involved in the learning process. Learner-centered teaching style focuses on how students learn instead of how teachers teach. The teachers therefore have an active role to play during active learning as they provide students with opportunities to learn independently and from one another and coaches the students in the skills they need to do so effectively**.** This simply implies that the more active the students become during the learning process, the more active the teachers become.

Both the teachers and the students are actively involved during the teaching-learning process. The teachers search to discover much more different and easy ways of coaching, facilitating, and encouraging the learners to attain the stated objective.

Roles of teachers and learners in active learning

In regard to learning management enabling learners to attain the quality as prescribed in the curriculum goals, teachers and learners should play the following active roles.

Roles of teachers

During active learning, the teachers should:

1) Study and analyze learners individually, and then use the data obtained to plan the learning management in order to stimulate and challenge the learners' capacities;

2) Set the targets for the learners in regard to knowledge, skills, process of conceptualization, principles, relationships as well as desired characteristics;

3) Design and organize learning processes to serve individual differences and intellectual development, so as to enable the learners to attain the goals of learning;

4) Provide an ambience and necessary care to enable effective and meaningful learning;

5) Prepare and utilize media that are suitable to the activities organized, and use local wisdom and appropriate technologies for teaching-learning activities;

6) Assess the learners' progress through a variety of methods suitable to the intrinsic nature of the subjects and the learners' development levels.

Vol.26 No.2 April - June 2020 ISSN 2408-0845 (Print) ISSN 2651-1487 (Online)

7) Analyze assessment results for remedial and development actions as well as improve their own teaching-learning methods and activities.

Roles of learners

Learners are also a critical element in curriculum implementation. While teachers are the arbiters of the classroom practice, the learners hold the key to what is actually transmitted and adopted from the official curriculum. They should do the following:

1) Set the goals of learning, make plans and take responsibility for their own learning;

2) Seek knowledge, make serious efforts to access learning resources, analyze and synthesize bodies of knowledge, raise questions and search for answers or problem solutions through various methods;

3) Take action, draw conclusions regarding what has been learnt, and apply the knowledge gained to various situations;

4) Interact, work and join in activities organized by their peers and their teachers.

5) Continuously assess and improve their own learning process.

What is meant active in active learning?

For learning to be termed active, certain considerations must be made. The students and the teachers must jointly participate in the process of teaching and learning. The more active the students become, the more active the teachers become as well. In active learning, the following four considerations must be made.

1. Both the students and teachers are physically present and active in the teaching learning process.

2. They must be intellectually active

3. They must be socially active

4. They must be emotionally active.

Physically, the learners should be present during the learning process in order to work with peers to fulfill the learning objectives. In some cases, learning can be undertaken in a classroom situation or in an online setting. If in a classroom setting, the learners should be present in class and on time in order to participated and jointly attain the goals of learning. In an online situation**,** the learners should be online, ready to start the class on time. Physical activities in active learning may include thinking and asking questions, presentations, role play, etc. In the case of skill development, the students carry out the activities themselves with the help of the teachers.

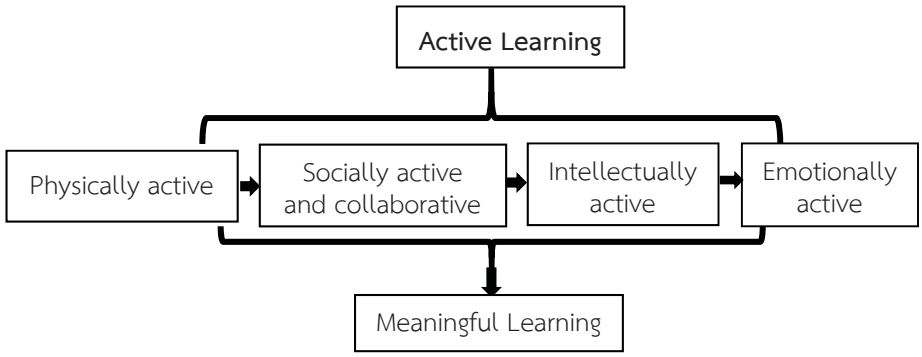
Intellectually, the learners should be able to think and share new, educative and intellectual ideas with their friends in classroom context. Learning is an active process whereby students assimilate information and relate this new knowledge to a framework of prior knowledge. During active learning, physical presence alone is not enough. The learners

ปีที่ 26 ฉบับที่ 2 เมษายน - มิถุนายน 2563 ISSN 2408-0845 (Print) ISSN 2651-1487 (Online)

with the facilitation from the teacher should be able to use his brain. The learner should be able to think, analyze situations, engage in a class discussion, synthesize data and make contributions during the learning process. This means that the learners must prepare (read to grasp the concept under discussion) before coming to class. This will enable them to participate actively during the learning process.

Socially, the learners should be able to develop the skill for team work as well as be able to work together with their peers. From the social point of view, learning is a naturally social act in which the participants talk among themselves (Gerlach, 1994). In social interaction learning environment, the learners are challenged both socially and emotionally as they listen to different perspectives, and are required to articulate and defend their ideas. In so doing, the learners begin to create their own unique conceptual frameworks and not rely solely on an expert's or a text's framework. Thus, in a collaborative learning setting, learners have the opportunity to converse with peers, present and defend ideas, exchange diverse beliefs, question other conceptual frameworks, and be actively engaged. For active learning to be considered effective, the learners should have the attitude of collaboration, cooperation and togetherness. Being socially active refers to students working in teams on an assignment or project under conditions in which certain criteria are satisfied, including that the team members be held individually accountable for the complete content of the assignment or project. Students achieve a great deal when they work in team.

In active learning, learning should be done emotionally. That is; the students should work based on their area of interest and they should work on what they love to do. During active leaning the teachers doesn’t force the students to work but the student force the teachers to give them guiding ideas on what they wish to learn and understand best. The core elements of active learning are student activity and engagement in the learning process. The learners should love what they do during the learning process.



Active learning framework

Vol.26 No.2 April - June 2020 ISSN 2408-0845 (Print) ISSN 2651-1487 (Online)

Conclusion

Active learning is a teaching approach that enhances academic performance as well as the development of skills in learners. It should be noted that in active learning, not only the students are active in the active learning situation and that active learning is not just engaging in the learning process by writing or reading, but the teachers are as well very active in active learning as they need to do much through coaching, scaffolding, motivating and searching for new methods that will enhance students learning and skill development. However, for students to be considered as learning actively, they should be active physically, intellectually, socially as well as emotionally. If learning takes place with these four aspects, then, it referred to as active learning. Whatever the case maybe, all the learning engagement (physically, intellectually, socially as well as emotionally) must be directed towards attaining the stated objectives.

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ปีที่ 26 ฉบับที่ 2 เมษายน - มิถุนายน 2563 ISSN 2408-0845 (Print) ISSN 2651-1487 (Online)

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