

## COOPERATIVE LEARNING APPROACH IN AN OUTCOMES-BASED ENVIRONMENT

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### ABSTRACT

Student-centered teaching and learning is the recommended approach to modern day pedagogy especially in the Outcomes-based Education where the teachers served as the facilitator of learning activities rather than performing the traditional lecture method. This article aims to discuss the option of utilizing the cooperative learning approach as teaching and learning strategy in the classroom to encourage learners' active participation. Academic performance as an important measure of students' learning experience should require evidence as output of the teaching and learning process. Students are guided with the clear objectives on how to accomplish group goals and everyone is encouraged to take part in bringing about the required output of the assigned task. Cooperation is an important aspect of unity, collaboration and social obligation that creates an environment for better learning experience.

**Keywords:** Student-centered, Outcomes-based, Learning Strategy, Cooperative Learning.

### INTRODUCTION

The active participation of the students in the classroom discussion is always being encouraged to strengthen not only the cognitive ability of the learners but also the affective and psychomotor domains. Students are involved in solving problems, brain storming, formulating questions on their own, discussing ideas and expressing opinion on debates. Giving them the chance to take part in team exercises enhances their capacity to become leaders and be responsible in performing their assigned tasks. Therefore, cooperative learning approach may provide better opportunity for learners to grow and achieve the course objectives as well as the student-outcomes.

The term cooperative learning (CL) 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 (Felder & Brent, 2007).

Collaboration among the group members improves the skills of the students to communicate in social discussion and participate in the accomplishment of their common goal. Low performing students may tend to give up on performing his activity alone but with the help of high performing students. The exercise would be significant for both of them where strong students can still enhance his capability to explain the procedure to the weak students and the process would keep them socially matured with concern for one another.

Cooperative learning offers a pleasant learning situation for all students, all students have equal opportunity, competition is amended as friendship, the spirit of cooperation and participation is reinforced, and all students are entitled to be thoughtful and creative

(Keramati, 2001; Lavasani & Khandan, 2011). Teacher can encourage students to ask for help to better understanding of the difficult subjects through forming cooperative groups; on the other hand, students will learn to ask for help in different occasion whenever help seeking transpires (Lavasani & Khandan, 2011).

Learning in various ways through self-discovery or with the help of their peers strengthen the foundation of knowledge which is built from a shared environment. Metzler (2011) defines cooperative learning as a methodology in which “students learn with, from and for their peers”. It is an educational methodology based on working in small and usually heterogeneous groups, in which students work together to expand or hone their own skills and those of other group members (Johnson, Johnson & Holubec, 1999; Velázquez, 2010; Velázquez-Callado, 2012).

In order to address the need of the cooperative learning approach, planning is one of the key success factors to achieve the appropriate outcome from the students. Preparation of group activities would require ample time due to various considerations that need to address in the planning stage including the objectives, materials, instruction or procedure of the activity and the class management during the execution of group work. Making this as teaching strategy expands cooperative relationships among students in academic tasks in the classroom. In these cooperative strategies there are three strategies of learning management aspects that must be considered: that is, structured tasks where learners should be doing in collaboration with others; the structure of goals and reward structures that depend on the performance of both products; and other student’s achievement displayed by each learner in the learning process (Slameto, 2013).

Race (2005) emphasized that cooperative learning might have affected the ‘doing’ without affecting the ‘wanting’. Students may have appeared to engage more actively in discussion, still, this does not necessarily imply that cooperative learning increased their cognitive activity (Meyer, 2009). The extent of learning can be best measured and described through assessing the quality of their products or outputs. It is still a challenge for the teachers to observe properly the behaviour of the students that would somehow affect their academic performance.

## **Instruction**

The role of academic institutions is to hone the competencies of the students in order for them to achieve the personal and professional growth through continuing education after college and let them be glaring symbols and icons of integrity, leadership and nationalism with enormous faith and service for God and country (Dotong, 2014).

Teaching remains as the noblest profession, not only because it was introduced by Jesus Christ through His way of life, but also because man himself serves as the ultimate beneficiary and output of the said profession (Fajardo, 2014). Instruction is one of the major concerns of the academic institutions on how to get it excellently delivered to the students and how could it really define their quality and reputation in terms of outcomes-based education. Teachers are always in the forefront of the most important and key services rendered by the university. Keeping them abreast with the latest innovations and pedagogies in teaching would provide better learning atmosphere in classroom setting. Morales (2014) emphasized the integration of technology in the curriculum and instruction which would bring about significant student achievement leading to deep understanding of concepts for

probable positive impact on student learning and achievement. Applying educational technology in the delivery of instruction would provide interactive better understanding of abstract concepts and simulation of processes which cannot be demonstrated through pure lectures without an aid of electronic devices or equipment. On this way, students' participation would be encouraged to assist them in stimulating their knowledge and skills to produce specific outcome.

With an increasing awareness that many undergraduates are passive during teaching sessions, calls for instructional methods that allow students to become actively engaged have increased. Cooperative learning has long been popular at the primary and secondary level and, within recent years, higher education (Herrmann, 2013). Changing the instructional method is in itself not enough to discourage a surface approach and promote a deep approach to learning (Herrmann, 2013) in an outcomes-based environment.

Every teaching personnel must be very particular and sensitive to the needs of the students, because outcomes-based as a system needs the support of everyone in the academic community. Through making the students feel satisfied to all the services being given to them especially in the delivery of instruction is something enormous achievement for the university because it is a remark of commitment to quality education (Laguador, 2013).

The changes in the educational programs' goals, educational materials and contents, the methods and means used in education, and generally the changes in teaching and learning and their coincidence with the recent innovations is an absolute and undeniable fact (Lavasani, Afzali & Afzali, 2011). One of the most important strategies for activating the students in the learning process is employing the "study groups" in the class and also providing an opportunity for discussion, exchange of views, and question and answer (Payne & Whittaker, 2000; Lavasani, Afzali & Afzali, 2011).

As in almost all societal spheres, the teaching methods are also exposed to dramatic changes due to the technological developments imposed in the recent decades. The conventional teaching methods are recently witnessed to experience a great change and as a consequence, new paradigms in teaching methods are aroused. As a social being, the education of human beings in a cooperative environment is seemed to be a natural approach and have been somehow in use for decades. However, due to recent technological developments, "learning in group" is conceptualized as a new learning approach. In this process of the change, the new approach is called as the cooperative learning and in the knowledge based society; the new opportunities, rules and principles have recently been advised for the cooperative learning. In this context, the modern cooperative learning is considered as the most original instance of the "learning in group" (Korkmaz, 2012; Altun & Korkmaz, 2012).

For the fresh graduate teachers who are new to the teaching profession, cooperative learning would be a challenge for them to master the art of providing stimulating activities that would enhance the creativity and the ability of the students to be expressive, participative and cooperative. Guided by the principles of teaching, new teachers especially those non-education graduates may be given appropriate training on classroom management with different teaching strategies. However, those teachers who stayed almost in the teaching profession for many years and if some of them are already contented to lecture-discussion method may somehow resist on the nature of cooperative learning approach. They might also produce the same outputs from the traditional approach but the process on how the learners

achieve their tasks would not be enjoyable or memorable compared to the student-centered approach.

Universities and colleges in the Philippines are now starting to implement the outcomes-based education (OBE) as part of the educational reform to meet the challenges of ASEAN integration. Several accrediting bodies for quality assurance in education are now revising their instrument to measure the capability of the academic institutions in OBE.

### **Elements of Cooperative Learning**

Several definitions of cooperative learning have been formulated. The one most widely used in higher education is probably that of David and Roger Johnson of the University of Minnesota. According to the Johnson & Johnson (1998) model, cooperative learning is instruction that involves students working in teams to accomplish a common goal, under conditions that include the following elements: positive interdependence wherein team members are obliged to rely on one another to achieve the goal, if any team members fail to do their part, everyone suffers consequences; individual accountability where all students in a group are held accountable for doing their share of the work and for mastery of all of the material to be learned; face-to-face promotive interaction wherein although some of the group work may be parcelled out and done individually, some must be done interactively, with group members providing one another with feedback, challenging reasoning and conclusions, and perhaps most importantly, teaching and encouraging one another; appropriate use of collaborative skills where the students are encouraged and helped to develop and practice trust-building, leadership, decision-making, communication, and conflict management skills and group processing where the team members set group goals, periodically assess what they are doing well as a team, and identify changes they will make to function more effectively in the future (Felder & Brent, 2007).

It is an organized group learning activity so that learning is dependent on the socially constructed exchange of information between learners in groups and in which each learner is held accountable for his or her own learning and is motivated to increase the learning of others (Ghorbani & Nezamoshari'e, 2012).

In cooperative learning approach, the students obtain social skills through participating in group activities. Group is where the students learn how to listen when the others are speaking. Also, in group they practice self-control. They learn when to start talking and not to interrupt the others. They learn to speak slowly and make eye contacts with the others. They learn to listen to the others' views and respect them. They are taught to criticize the opinions and not those who develop them. They learn to view the problems from the others' viewpoints. They are taught to accept the criticisms and tolerate the opponents' views. All of the afore-mentioned skills are taught practiced in groups and are gradually internalized in the individuals (Lavasani, Afzali & Afzali, 2011).

A large body of research has demonstrated the benefits of collaborative learning strategies (Schroeder et al, 2007). These benefits include student reports that team work is beneficial, motivating (Bartle, Dook, & Mocerino, 2011), and confidence- and responsibility-building (Caulfield & Persell, 2006; Dingel et. al, 2013).

While reinforcing the cooperative morale and friendship among the students as well as their social growth have been discussed, but in effect there has been done not only any effective

step towards achieving that but often cooperation and friendship have been replaced by competition resulting the increase of jealousy, grudge, and enmity among the students (Keramati,2005; Lavasani, Afzali & Afzali, 2011).

This cooperation promotes and enhances learning, however, it cannot be forgotten that the implementation of cooperative learning and development requires a complex and slow process that requires a lot of activities by the teacher (guide students, forming groups, structuring the learning task, evaluating collaborative learning, etc..) and a series of specific resources. To help teachers in the structuring of the activities required to perform the set of skills involved in cooperative learning in the university these techniques have been used by various disciplines (Gil & Jurado, 2011).

Cooperative learning may be especially effective with students from diverse cultural backgrounds, students with limited English proficiency, and students with disabilities (Cartledge & Kourea, 2008), because it makes instruction relevant and responsive to students' experiences, cultural perspectives, language backgrounds, and developmental levels (Diaz-Rico & Weed, 2010; Gollnick & Chinn, 2009; Nunnery, Chappell, Arnold, 2013).

A cooperative classroom should not be teacher-centered and “Ideally, teachers are trained to take their existing lessons and restructure them to be cooperative as cooperative learning is the instructional use of small groups so that students work together to maximize their own and each other's learning” (Johnson & Johnson, 2008; Marashi & Dibah, 2013).

Cooperative learning methods engage teachers in structuring their math classrooms to provide a learning context that is social, interactive, and highly engaging. These structures have been proven effective in enhancing important cognitive and affective constructs that contribute to learning and motivation for a range of diverse students (e.g., Barbato, 2000; Johnson & Johnson, 2009; Reid, 1992; Slavin & Karweit, 1985; Slavin, Lake & Groff, 2009; Slavin, Madden, & Leavey, 1984; Suyanto, 1998; Zakaria, Lu Chung & Daud, 2010; Nunnery, Chappell, Arnold, 2013).

Kagan cooperative learning structures enable students to work as teams, partner, and classmate. These structures empower learners to work together for learning language. The students learn multiple ways to solve language problem and learn to tackle a language challenge as a group. These structures prepare happy place for learners and students so they don't feel tired (Mohammad davoudi & Mahinpo, 2012).

Learning could be best acquired in a situation where students can easily adapt to the atmosphere that encourages active participation and cooperation among members of the class. Mauladin (2013) stated that it is important to provide a method of learning about the good and the bad, what should and what should not be done when one is in a shared living environment. Learning method provides not only moral ethics against fellow human beings, but also knowledge of the ethics of the environment.

Stability of utilizing and bringing advances to classroom instruction involves facilities and infrastructures that would support the maintenance of any computer-based teaching. Acquiring software application for laboratory courses of the students would provide hands-on experience for them to learn directly certain skills. Teachers are required to attend training and workshop to maximize fully the features of educational technology. Learning to adapt the environment and operations of a certain computer application would be somehow difficult



especially to those baby boomers who are not really inclined with the new trends of digital natives.

Problems occurred in the inconsistency of integrating technology-driven teaching strategies which become the major issue which was confronted by underlying concerns under the institutional, departmental and student factors (Bay, 2013) in keeping the delivery of instruction interactive. Sustaining the learning environment with appropriate application of technology is necessary to promote innovation in bringing real life scenarios into classroom setting. Recent developments in instructional technology and multimedia learning environments indicate the need for new requirements or strategies for designers and developers who are responsible for developing project management and the planning of learning processes in education and industry (Ipek & Sözcü, 2014). Making it consistent would provide better knowledge and understanding on the discipline and better satisfaction on the delivery of instruction with student outputs as evidence of learning experience. Students would realize the benefit of utilizing technology as major instrument to the development of their skills and competencies. Mauladin (2013) stressed the selection of appropriate learning methods where teachers can develop young naturalist intelligence and knowledge that foster the children to about their environment.

Individual student performance was superior when cooperative methods were used as compared with competitive or individualistic methods. The performance outcomes measured include knowledge acquisition, retention, accuracy, creativity in problem solving, and higher-level reasoning. Other studies show that cooperative learning is superior for promoting metacognitive thought, persistence in working toward a goal, transfer of learning from one setting to another, time on task, and intrinsic motivation (Felder & Brent, 2007).

Teachers can control the environment during the learning process through observation and maintaining the active involvement and enthusiasm of the learners is important consideration to sustain the cooperative learning approach and attain necessary course outcomes. Everyone is being held accountable and socially responsible to any consequence that would occur in the team. Making them aware of their contribution to the attainment of the goal would provide better understanding of what to accomplish.

### **Academic Performance**

The degree programs integrate the core values of the university, as well as puts a premium on the seven learning outcomes that include communication skills, computer literacy creative & analytical thinking information retrieval - and evaluation teamwork & leadership entrepreneurial skills proactive and spiritual values aside from the competencies that meet local and international standards in the various tourism and hospitality sectors (Mejia et al., 2014). The industry-partners have very high regards in the competencies of the graduates in terms of the relevance of their knowledge and skills in research and work discipline, communication skills, computer skills while entrepreneurial skills obtained the least (Laguador& Ramos, 2014). These are being measured as important characteristics of graduates that the students need to possess through assessing their academic performance based on outcomes.

In cooperative leaning approach, it is very important to inform the students of the criteria on how they would be rated by the teachers, therefore, rubric should be formulated so that the

learners are guided of their participation and the expectation on their academic performance would also be enhanced.

Student's achievement are also often called a specific statement of what will be known and can be done by the students, as a result of learning, which is usually in the form of knowledge, skills, or attitudes (Louis, 1994; Slameto, 2013). Those students learn through an active learning approach not only learn better but also enjoy much more from the learning experience (Lavasani, Afzali & Afzali, 2011).

The students are reluctant in cooperating effectively into group works; which is a matter of rising concerns in the success of the cooperative learning. In such circumstances some students are compelled to take all the responsibilities, while the others are avoiding any engagement due to group works (Nam & Zellner, 2011; Korkmaz & Yesil, 2011; Altun & Korkmaz, 2012 ).

The attitude level of the computer and electrical-electronics engineering are found to be high. The main reason behind this finding is believed to be the positive attitude acquired by the students in cooperative working environment which is usually common in engineering faculties. On the other hand, the attitude of the 4th year students towards cooperative learning is found to be meaningfully different compared to the attitude of the 1st year students (Altun & Korkmaz, 2012).

Many teachers and scholars emphasize the importance of collaborative learning. However, it is a challenge to assess team work in an effective and equitable way (Dingel et. al, 2013). Collaborative educational work can be conceptualized along a continuum from casual classroom use, to intentional and structured activities, to those designed to support "high performance" teams that "engage in significant learning tasks" (Fink, 2002; Dingel et. al, 2013). Collaborative learning includes a variety of activities spanning from instructors pairing up students and having them share with one another or complete simple cooperative exercises (Rao & DiCarlo, 2000) to creating "learning teams" that work together for an extended time to complete more complex learning activities (Dingel et. al, 2013).

Cooperative learning promotes thought provoking and interactive environment for the students. The instruction and activities based on cooperative learning are creative, thought provoking and interactive and offer ideas for how the children can live the value in practice and find the answers from within themselves. Cooperative learning can be utilized to enhance and promote higher student achievement. The purpose of this article is to analyze the effects of cooperative learning in a classroom to see its impact on student learning. Also, elements of cooperative learning are discussed and its influence on student achievement (Iyer, 2013).

### **Relation of Cooperative Learning and Academic Performance**

One fear many instructors have about cooperative learning is that when students' grades are affected by the achievement of their group-mates, the students will believe that the grading practices are unfair. When positive outcome interdependence is structured within learning groups, achievement is greater than when students work individualistically on their own. In addition, cooperative experiences resulted in more positive attitudes toward classical music and own musical skills and no change in desire to teach music to elementary school students (Hwong et al., 1993; Iyer, 2013).

Cooperative learning, when instituted and successfully practiced, creates a microcosm of equity in a group. When striving to teach students to create, monitor, and evaluate the equity in their cooperative group, teachers teach them how to begin to create a just society. Cooperation thus is humanity's strongest asset and hope (Cohen et al., 2004; Iyer, 2013). Cooperative learning has been widely embraced by mathematics teachers as well as for literacy learning. Cooperative learning is a great tool that can be used to improve student achievement in any classroom. It also fosters tolerance and acceptance in the community, which improves quality of everybody's life. Multiple researches have shown that cooperative learning strategies can be utilized to promote deeper understanding. Educators can use various strategies of cooperative learning along with their instructional techniques to enhance learning in a classroom. This will result in higher student achievement.

## CONCLUSION

Cooperative learning is an approach to the aim of student-centered classroom activities towards the attainment of the outcomes-based environment as required by accrediting and certifying bodies and agencies of higher education. The teacher should prepare the activities appropriately to obtain remarkable learning experience on the part of the learners. Providing clear objectives of the classroom activities gives the learners a sense of direction towards the attainment of the group goals. Everyone is an important composition of the team and each member should actively participate. The teachers should set the environment conducive for learning including the materials to be used, safety of the students during the activity, motivation to participate, and encouragement to obtain high academic performance. Cooperative learning also creates and hones future leaders where dedication and commitment to serve the group is an experience that would cultivate their leadership skills.

It is also a responsibility of everyone in the academic community to provide an outcomes-based environment that would help shape the character and values of the learners. The support of the management in providing resources to sustain the implementation of Outcomes-based education is an important aspect of success. The learning outcomes of the students gained from the cooperative learning serve as an essential product in an effort to provide quality education for the future leaders of the world.

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