

USE OF TECHNOLOGIES IN THE FIELD OF CO-OPERATIVE LEARNING TO DESIGN LEARNING SITUATIONS: A COMPREHENSIVE STUDY

Dr. UPENDRA ABHIMANYU PATHADE

Assistant Professor

Department of Geography

G.M.D ARTS, B.W. COMMERCE AND SCIENCE COLLEGE SINNAR DIST. NASHIK (M.S)

Email - upendrapathade907@gmail.com

Abstract: Co-operative learning is a knowledge enhancement process teaching strategy that can benefit students in many ways. At the stage of cooperative learning, students can work together in order to maximize their learning and each other's learning. Its awareness is so helpful student's academic achievement for increases while they develop their social skills and confidence. Learning situation is an environment of learning present situation. Students are an active process, which have adequate rest, health and physical ability. Learning is depends on the pedagogical approaches teachers use in the classroom. Students are works together. The teacher can organize interaction with students in the context of tasks on academic and preparation works to learners collaborative with each others. This strategy increases student's retention and self esteem responsibility for understanding diverse perspectives. It consist the students achievement goals. It inspires collective knowledge, resources and skills. Co-operative learning gives variety of learning activities to improve self understanding towards the subject. Present study carried out use of technologies in the field of co-operative learning to design learning situation by observing different modern tools for effective learning.

Key Words: Co-operative Learning, Academic achievement, Social Skills, Learning Situation, Collective Knowledge, Learning activities.

1. INTRODUCTION:

The Concept of Cooperative learning involves the utilization of small groups in an educational setting in order to foster interpersonal communication skills amongst students in the classroom. It introduced in the 1920's, cooperative learning has become a staple of many modern classrooms for its ability to aid in the student's development of critical thinking abilities diversify situation interacting with their peers (Loeser, J. W, 2008). In Modern technology teacher centric learning process, needs to be as a facilitator of children's learning activities. Mainly they are to raise logical questions, discuss on the content with each peer group, and imitate higher order thinking, critical evaluation of idea, etc. in team work towards the groups. Contribution to the understanding of technological aspects in support of collaborative learning.

The set up of goal by using this strategy is for students to work together to achieve a common goal in academic development. There are benefits of the cooperative learning in terms of increasing the students' academic success and gaining social skills. Because the students are actively involved in the learning environment, direct their own learning, combine the new information with the previous ones, their academic success improves, their ability to manage information resources development, attitudes are affected in a positive way, self confidence fosters, communicative and writing skills improve, they gain cognitive and social skills. This research study will help to researcher and academician for their knowledge enhancement.

2. HYPOTHESIS:

The objectives of the present study are design to address following hypothesis.

- The study of Co-operative learning strategies for learning situations has good potentials of subject resources but students are not fully utilised in the present situation.
- The technological tools for effective learning have helpful for individual assessment.
- Group processing identifies the successful incorporation of co-operative learning in the classroom.
- Group conflict is the major challenge in the co-operative learning to diversify the learning process.

3. OBJECTIVES:

The main objectives of this paper is to find out importance of Learning situations and its perspectives for education to creating new innovative ideas and effective strengths for establishing quality in academic life. Also this research paper avails to concentrate on following objectives –

- i. To know different characteristics and elements of co-operative learning and the use of technological tools.
- ii. To know modern methods of co-operative learning strategies for effective learning.
- iii. To know the informal co-operative learning activities.
- iv. To evaluate the impact of JIGSAW, STAD and Group Investigations for learning situation.

4. LITERATURE REVIEW:

Ronnie Vernoy (2008), in his book ‘Collaborative Learning in Practice: Examples from Natural Resource Management in Asia’ said about collaborative learning is for participatory rural development with a focus on community-based natural resource management approaches in different levels of society. He may address capacity development and learning theory, also focuses on real-life, complex learning situations concerning natural resource management dilemmas. In his book Ronnie Vernoy complied examples of novel communities and practice for capacity development; and demonstrates both the process and outcome merits of using a variety of learning methods which facilitates an integral part of the learning process in the study.

Therese Laferriere and Paul Resta (2007), the article on ‘Technology in support of Collaborative Learning’ focuses on the ways computer-mediated network support social interaction. Co-operation and collaboration for learning and knowledge building. Current practices include technology rich learning environments; network enhanced learning environments, blended / hybrid learning environments etc. In the conclusion part they state that, collaborative learning is its theoretical empirical basis and growing number of researchers need to know possibilities and challenges to its continuing development.

Paul Light and Karen Littleton (2000), in their book ‘Social process in Children Learning’, this book is about children's learning and problem-solving behaviour. Theoretical and empirical terms, which interact between children influence learning outcomes. Also they describe a series of their own experiments conducted with groups of school children. More studies are involved in computer-based learning and problem-solving, but the findings are of more general significance. Students have their implications both for classroom practice and the understanding of the learning process.

Susan S. Ellis and Susan F. Whalen (1996), in their book ‘Co-operative Learning : Getting Started (Teaching Strategies) said that, children’s leisure time today seldom involves the kind of co-operation that the old neighbourhood gaming tools provided earlier which having given way to television computer games and supervised sports. ‘Kagan’ stress the need for teaching social skills and co-operation within the classroom. He suggested Basic Group Skills, Function Skills, higher Order thinking skills etc.

Elizabeth G. Cohen (1994), in her book ‘Designing Group Work – Strategies for the Heterogeneous Classroom’ she suggested easy to follow theory with examples and teaching strategies that are adaptable to any situation. The book allows good advice about how to work with groups, could be described clearer.

5. METHODOLOGY:

The data and information have been collected from different source such as published and unpublished work. Secondary data reviews of for different period. In order to assess educational performance to effective planning and designing for decision makers were collected and processed to summarize succeeding pages.

6. DESCRIPTION OF STUDY:

Now in the era, several new learning tools help students in cooperative learning, mainly they are the use of social media in classroom discussion by interaction, and the use of video-modeling for learning impaired students for making interesting class.

6.1. Cooperative Learning and Social Media:

Social media such as Facebook have been shown to be increasingly popular in aiding the cooperative learning experiences towards to interaction. Uses of closed-groups, students are able to communicate in a consistent and relatable setting where they may contribute to discussion or seek clarification for their own assignments.

6.2. Video Modeling:

Cooperative learning proved to be most difficult for students with special needs, studies have shown that the use of video modeling can help students better understand to making participation (O'Brien & Wood, 2011). Different academic videos which created by teachers, students can be presented with examples of how to, and how not to interact with each other in order to directly correlate appropriate social skills.

The social media and video modeling compiling, we can begin to level the playing field amongst students of various levels of social ability so that every student can begin technological proficiency. As per the constructivist approach, students' may learn or depends on their previous information, cognitive ability and environment. Learning situation is depends on the environment because according to the constructivist approach learning consists of our experience in the real world (Duffy & Jonassen, 1992).

▪ **Different characteristics and elements of Cooperative Learning and the use of Technological Tools**

1. *Positive interdependence:* In collaborative environments that technological tools are used, tasks interdependence can be provided by differentiating each member's task into researching, making presentation, creating the final report and so on.
2. *Face-to-face Promotive Interaction:* In this technique different elements are used with the help of technological tools they are video conferencing, e-mail, blogs, and social media will enable students to communicate synchronous and asynchronous and so on.
3. *Individual and Group Accountability:* The purpose of cooperative learning is making each individual in the group progress by allowing them to teach each other.
4. *Social Skill:* Students should be made aware of about social skills such as leadership, decision making, building trust, communication and conflict management and provided to use these skills, recordings of the communications with interaction between the students depends on providing technological tools.
5. *Group Processing:* In collaborative learning environments that technological tools are used, it is easier to examine and indicates what behaviors are effective or not due to the fact that the students' group process is recorded.

❖ **Modern Methods of Cooperative Learning developed by (Johnson, Johnson & Stanne, 2000) i.e.**

- Learning Together & Alone
- Teams-Games-Tournaments (TGT)
- Group Investigation
- Constructive Controversy
- Jigsaw Procedure
- Student Teams Achievement Divisions (STAD)
- Team Accelerated Instruction (TAI)
- Cooperative Learning Structures
- Cooperative Integrated Reading & Composition (CIRC)

▪ **Examples of informal co-operative learning activities :-**

1. **Think pair share -**

In these techniques the instructor asks a discussion question. Basically, most of the students are instructed by the instructor for to think or write about an answer to the question before turning to a peer to discuss their responses. Groups then share their responses with the class.

2. **Peer Instruction –**

It involves personal responses devices. Student can change their answer after discussion and 'Sharing' is accomplished by the instructor raveling the graph of student's responses and using this is a stimulus for large class discussion.

3. **Jigsaw –**

This approach creates group of students work in a team become experts on any one segments of by using new material, while other "experts' teams" in the class work on other segments of new materials.

▪ **Plan by using Jigsaw, STAD, Group investigation for Learning situation**

I. **Jigsaw :**

1. Majority diverse strategies are commonly used in the sense of Cooperative learning. Similarly, different form of expert groups to learn about the Teacher Evaluation criteria for the classroom environment portion by using "Danielson" model.
2. Return to home base group to explain the criteria and present your teaching strategies.
3. It may be concern all group members should be able to explain each aspect and give a teaching strategy for each.

II. **STAD (Student Teams Achievement Division) :**

1. Mixed ability groups of 4 students
2. Teacher presents a lesson
3. The systems should be compare different or even groups work to make sure every member understands the lesson and can complete a demonstration activity.
4. After the evaluation students are able to complete an independent practices activities or quizzes for individual accountability.
5. Evaluate the scores are averaged for each group and compared to a class average.
6. By using evaluation method those teams are awarded to getting points for behavior/cooperation and individual are awarded their grades. Winner will get chances for improvement.

III. **Group Investigation :**

- 1) Most of the students are assigned or decide on the topic for investigation.
- 2) Students divide the investigation into smaller parts.
- 3) Group wise each student is responsible for researching one of the subtopics.
- 4) Strategies are making groups wise learner's come together as a group and share their information.
- 5) After the evaluation strategies students may synthesize information to produce an end product.
- 6) Participants of the group members may participate in the class presentation.

7. CONCLUSION:

The frequency of technologies to support collaborative learning in higher education has attracted a rapidly growing number of research studies focused on some aspect of technology-supported collaborative learning examined from different theoretical perspectives. This research expand the confluence of the trends suggest a movement towards the understanding of technology in support of collaborative learning as an emerging field of study. When we analyze learning situation process students become more effective as learners. Advancement in the field of learning results improve the student's academic ability also provides experiences that develop both good learning skills and social skills to increase in understanding of divers perspectives. By imparting knowledge to design learning situation by using co-operative technologies students can learn effectively for found new research. By using co-operative learning technologies students able to extend their education in another way. JIGSAW, a STAD and Group Investigation technique makes easier the students involvement and evaluation.

REFERENCES:

1. McManus, M., & Aiken, R. (1995). Monitoring computer-based problem solving. *Journal of Artificial Intelligence in Education*, 6(4), 307–336.
2. Hiltz, S. R., Dufner, D., Holmes, (1991). Distributed group support systems: Social dynamics and design dilemmas, *Journal of Organizational Computing*, 2(1), 135-159.
3. Wilson, E. (2000). Student characteristics and computer-mediated communication, *Computers and Education*, 34(2), 67–76.
4. Loeser, J. W. (2008). A novice teacher fosters social competence with cooperative learning, *childhood education*, 2nd Ed. Vol. (86), 123-142.
5. Kate Exley (2004). *Small group teaching*, Routledge Falmer, 19-23.
6. Dillenbourg, P. (Ed.), (1999). *Collaborative learning. Cognitive and computational approaches*. Oxford: Elsevier.
7. Bernard, R. M., Abrami, P. C., Lou, Y., Borokhovski, E., Wade, A., Wozney, L., et al. (2004). How does distance education compare with classroom instruction? A meta-analysis of the empirical literature. *Review of Educational Research*, 74(3), 379–439.
8. Alquraini, T., & Gut, D. (2012). Critical components of successful inclusion of students with severe disabilities: Literature review. *International Journal of Special Education*, 27(1), 42-59.
9. Alavi, M. (1994). Computer-mediated collaborative learning: An empirical evaluation. *MIS Quarterly*, 18(2), 59–174.
10. Daniels, K. N., & Billingsley, K. Y. (2014). Facebook- It's not just for pictures anymore: The impact of social media on cooperative learning. *Journal of Educational Technology*, 11(3), 34-44.