EFFECT OF COMPUTER SUPPORTED CO-OPERATIVE LEARNING IN AN INCLUSIVE CLASSROOM

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ABSTRACT

This study used a computer supported co-operative learning method to teach English grammar especially tenses to 20 high school students in 8th standard whom were classified as IED students (inclusive education for differently Able) . The co-operative learning strategies are used to variety group students for instruction in to four student team. Within the team, students were paired. Each team worked at a computer in pairs. A weekly quiz was taken. Three co-operative methods were covering English grammar and its application in tenses at the 8th standard students was used. The activities were planned and implemented through four steps which involved introducing co-operative learning having students work at the computer with a partner. It's a pair work. Outcome measures indicated an improvement in English grammar achievement of 23% for normal children and 38% for especially IED students. Students were reported they were enjoyed those ways of activities and developed positive attitude towards English Grammar.

Key Word: *Computer Supported Instruction, Co-operative Learning Strategy, Inclusive Education.*

INTRODUCTION

Inclusive education is one of the key factors in modern education field. The students are exposed to the field of education regardless of their differences. The education system should emphasis on the key factor that none of the students should be deprived of education because of their caste, religion, gender, language etc.

Inclusive education is a boom in modern education. It's a very approachable system for differently abled students. They are equally valued and considered. According to the new estimates carried out by the UNESCO, the number of drop outs of student's numbers decreased over a period from 1990 to 2010. According to the MHRD (2009) report a huge number of

students are deprived of their primary education because of no provisions for inclusive education. In recent years inclusive education has been called upon by many educators and parents by assimilating students with different abilities into general education classroom (Haring, McCormick& Haring, 1994). Slavin (1990) indicated that cooperative learning could be an effective strategy to provide learning opportunities for students with and without disabilities in an integrated class and helped all students improve positive social interaction. According to Light and Blaye (1990) the co-operative learning integrated with computer assisted instruction (CAI) reflects better learning outcomes mathematics.

Co-operative learning is a kind if teaching method that involves "students to work together to learn and are responsible for their teammates learning as well as their own" (Jacobs, et al, 1997). In this case, co-operative learning encourages students to learn with and from friends and the teacher acts as the facilitator. In co-operative learning, each student does not only learn for him/herself but also makes sure that his/her friends in the team also learn. In this study computer assisted co-operative learning strategy were used with 20, 8th standard students. Among 20 students 4 were classified as learning disabled (IED). These students received English Grammar guidance from their teachers in a differentiated classroom before they were brought in the 8th standard class. Their average English grammar level for class was at the 6th standard.

SELECTION OF CO-OPERATIVE LEARNING METHOD

Jigsaw puzzle was used for the research. Jigsaw is one of the most popular techniques. In the case of teaching grammar, we can use it to teach tenses. Tenses are the difficult grammar lessons for students. The use of jigsaw method will be good alternative variation from the usual lectures or explanation and exercises. Following the jigsaw activities students were divided into groups of 4 during the instruction. Each group were a mix of students with different levels of abilities and a frequent shuffle of students were done. A team lead and master were selected from within the team. All members in a team were seated as groups. In computer exercises the pairs are done. After the team members completed their works, they exchange the completed works to other groups to check the difficulties and to help the one who had difficulty. At the end of the 3 days in each team took a quiz.

INSTRUCTIONAL MATERIALS

The following materials used in this study:

● **Jigsaw Puzzles**

Jigsaw is one of the most popular techniques among the students. Most of the teachers used this technique to teach reading. Some of them apply this technique to teach different areas like grammar. In this study we used it to teach tenses. Tenses are among the most difficult grammar lesson for children. The use of jigsaw technique will be a good alternative variation from the normal lecture or explanation exercises.

- **Instructional Sheet**

The instructional sheet is given to individual student. The sheet contains explanation on how to go with the process while working at the computer and the methods to be followed during the application of English grammar exercises.

- **Worksheet**

Worksheet comprises of 10 questions in resemblance with the questions in each computer practice session in the text book. The worksheets are created for the daily practice by students.

TEACHER'S CO-OPERATIVE TASK

To apply the co-operative learning perspective in the classroom, the special educator and counsellor can cooperate among them with a group of excited activities in teaching learning process. Planning was organised weekly twice according to teaching manual, worksheets and computer assisted teaching materials. The special education teachers discussed the goals and the objectives with the general teachers. The normal teachers designed the techniques, assignments and worksheets with the input from the special education teachers. These teachers feel that the inclusive education classroom is not only for students working together but also for teachers.

ORGANIZATION OF COMPUTER SUPPORTED CO-OPERATIVE LEARNING

This system was processed in four steps. The steps are as follows:

- Awakening co-operative study strategies

Firstly, an awareness on team-teaching co-operation to the class. The pupils are divided as 4 groups and within the group again divided into pairs to play a game. So,the children aware about the team members and functions of the groups. Teacher introduced the rules and regulations of the topics and computer related programmes. Each session consists computer related applications, worksheets and instructional sheet for class practice.

Practice at system as pairs.

Each group performed the assigned computer activity. Students were requested to read the instructional sheets. After reading these instructions the partners were discussed with each other. A pair of students worked to complete the activities as per the guidelines, each one complete 5 questions of the session. They evaluated themselves and all corrected ones got recorded accordingly in the worksheet. The pupil will go with remedial measures in case of wrong answers. Subsequently, previous associate continued to solve the next questions.

- **Operation as a group**

The leader evaluates the answers. If the companion mark different answers the team would work together and fixed the correct answers. A helping hand will be offered to team facing hurdles. After all procedures the leader collected the worksheets and keeps it in a binder for the teacher.

- **Competition among pairs.**

A quiz will be conducted on completion. The quiz chooses their own proper criteria. The quiz will be evaluated based on marking scheme prepared by the teacher. Teacher collected all the points and at the end of the week pairs are named Excellent, very well, good based on performance, and awarded with a team certificate. These certificates were displayed on the class handouts.

EVALUATION OF COMPUTER SUPPORTED CO-OPERATIVE LEARNING

To evaluate the effectiveness of the computer supported co-operative learning included
a) Scores attained on English grammar achievement test
b) Students rating on four-point scale (strongly agree, agree, disagree, strongly disagree) on the attitude towards English grammar learning
c) An interview with individual IED students on their satisfaction with co-operative learning and inclusive classroom with normal children.

FINDINGS ON COMPUTER SUPPORTED CO-OPERATIVE LEARNING
IN AN INCLUSIVE CLASSROOM

The results indicated that during these two weeks co-operative learning, students gained more in their English grammar achievement test. This represents an improvement of 24% for normal students and 39% for IED students compared with the pre-test scores at the beginning of the class.
93% of the pupil come forward to work in pairs at the computer. Students responded over 3.4 out of 4.0. student's responses decreased from 2.2 to 1.8 compared with pre-survey completed prior to implementing the co-operative learning approach.

CONCLUSION

The system served as a tutor teaching aids a guidance tool. So, the children are very excitement. Computer assisted co-operative learning in English grammar instruction provided students at different levels an opportunity to work together. In an inclusive classroom how to meet a wide range of students needs in a concern for many teachers. Computer assisted co-operative learning may create a way to facilitate inclusion and assist teachers to meet different needs of students at different levels. In our experience if implementing the process of co-operative learning in the inclusive classroom, we found that when in a structured education system generally IED group work is implemented. Students help and encourages themselves to fulfil their learning activities.

Develop acceptance of opinions and attitude from their group mates. The learning background may inspire students in spite of difficulties in their scholastic accomplishment in schools.

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