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# THE IMPACT OF COLLABORATIVE LEARNING TO CRITICALLY THINKING

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### **ABSTRACT**

Active learning and teaching today aim to actively involve all participants in the colaborative interaction. So far, the students were passive listeners who are just absorbing information from teaching materials and teachers. They were not included in collection of information, commenting and analysis. In active learning, the role of students is significantly changed because they need to take responsibility for their learning. Active learning is learning that encourages and stimulates the development of thinking by adopting reallife situations, as well as imaginary situation in simulated area. Baseline information is a goal that needs to be analyzed and solved by students critical thinking. Students develop personal skills and positive attitude towards learning. One of the concepts of active learning is collaborative learning. In today's modern way of teaching, teachers and students are combine intellectual efforts to explore, understand and solve the problem. They generate ideas, and finally create a product. Collaborative learning has a strong influence on critical thinking through discussion, debate and assessment of different conclusions. In collaborative learning it is very important to set terms. For example; forming an ideal group of students, selecting members according to mutual interests and viewpoints. At each stage of learning and common interaction the teacher must give students right to opinion. Each member of the group must be responsible for their own work (Individual responsibility, Slavin, 1980). On the other hand group is responsible for each member. Collaborative learning has a role to reduce the feeling of individual loneliness. When a group of students are working together they develop a sense of belonging. The aim of this paper is to indicate the advantages and disadvantages of collaborative learning and specify a need to make this type of learning with maximum results and the development of specific skills. A comparison of collaborative learning with passive learning is in order to prove that the learning in groups give much better results. Students are more independent, happier, less lonely, have sense of belonging and thus enhance learning and encourage personal development.

**Key words**:collaborative learning, active learning

### **INTRODUCTION**

Today's modern methods of learning are trying to encourage teachers and students to combine their intellectual efforts through interaction, in order to try to explore, understand and solve the problems, generate ideas, and finally create a product.

The tendency of modern learning is that students are involved in all activities related to the process of making teaching materials. Collaborative learning has a strong influence on critical thinking through discussion, clarification of ideas, and an assessment of others' ideas. To achieve this goal, the teacher

\*Correspondence to: Department of Information Science and Mathematics, Faculty of Agriculture, University of Zagreb, Republic of Croatia; email:simunovic@agr.hr should observe the development process of students in terms of developing skills of learning. The role of teachers in collaborative learning is significantly changed.

The aim of this paper is to indicate the advantages of collaborative learning and to develop certain skills like critical thinking.

According to many authors, when we compare the collaborative learning with passive teaching; group work is giving much better results.

## **COLLABORATIVE LEARNING**

Collaborative learning is known by many names: cooperative learning, learning in the community, team learning and others. But all of these types have in common working in group. Cooperation is more than just teamwork. It covers the whole process of

learning. All the students are responsible for them selves and for the group. Achieving the goal means that all the students help each other in finding, synthesis and analysis of information and the evaluation and acceptance of the final decision.

In collaborative learning the problems are solved in groups and knowledge is a side effect of it. It is important to form ideal groups of students, to carefully select the members of the group by common points of interests. Every student in group has a role and access to variety of dana. At each stage of learning and collaborative interaction students should be free to express their opinions. In collaborative learning the teacher has a role of moderator. A teacher only direct group work, giving advices to students and not interfere. Each member of the group must be responsible for their own work (Individual responsibility, Slavin, 1989). Students are more independent, happier, less lonely, have developed a sense of belonging and encouraged their personal development. The role of entire group is to support and encourage each member in order to achieve the objective of the group. Collaborative learning has a role to reduce the loneliness of the individual. The group develop a sense of belonging and that is the factor that positively affect the emotional development of students. Laister and Kober in a study (2005.) observe the effectiveness of collaborative learning models, and lists the elements which are necessary for long-term successful learning such as cognitive skills and self-esteem. The authors also state that collaborative learning ensures higher level of achievement, increases problem-solving skills and encourages a positive impact on the strengthening of the personality that which is useful for future learning.

# ADVANTAGES OF COLLLABORATIVE LEARNING

Proponents of collaborative learning point out that students actively share, discuss and negotiate ideas in their groups and thus increase interest in learning. It is important that they take responsibility for their own learning. Collaborative learning should have a "group goal" and "individual responsibility" to be effective (Slavin, 1989.).

This explains the fact that each participant in the group has something to learn in the task. Each individual is responsible for a concept that is required to complete the part of the task. This means that each team member has to learn the assigned concept and present it to the rest of the group.

There are three approaches to collaborative learning which are closely related to information processing and require modern technology:

- Project beased leearning
- Request based learning
- Problem based learning

**Project based learning** is an approach that is based on the fact that you develop a specific product during learning. The teacher sets a problem and each student in the group gets task. Then the students decide about time. place and way of solving the given problem. Each individual solves a given problem independently and at the end they present it to the group. This type of collaborative learning requires small but heterogeneous group, so that advanced The group does the field researches, literature studying, create surveys, independent analysis and other work. The teacher has a role of consultant. The purpose of this kind of learning is: students learn to independently use the sources, learn to use the acquired knowledge in solving practical problems and learn to use the acquired skills. The students in the group are focused and active and they present to entire group their skills, creativity and commitment. After collection data, the student presents his concept to the group. The group can comment, suggest ideas and set the task. An individual monitor his own work and progress. The teacher proposes changes and the task continues to achieve the objective while the relationship between teachers and students is not superior / subordinate.

**Problem based learning** is learning based on problem. The learning is focused on the process of solving problems. Instead of classic lectures and grading, the teacher monitors the work, the way of students thinking and creativity. Students are managing the process of learning by them selves and they work in small groups. In this process it is important that the students and teacher discuss about the problem. Both teacher and students have to be enough interested in solving the problem. During the student solving problem process, the teacher doesn't have to offes solutions or directly affect on process. The teacher is here to guide the students in how to organize the process.

Request based learning is learning based on request. It is focused on asking questions, developing critical thinking and solving problems. In this type of active learning the students have to know how to ask the proper question, respectively they have to try to

convert informations and data into useful knowledge.

All those types of collaborative learning puts the student in focus of teaching process, while the teacher coordinate the course and conduct the researches. The teacher leads the process leading to a final solution.

### CRITICAL THINKING

Thinking is very structured process. It has several functions such as explanation, forming concepts, critical and creative nature, decision making and problem solving.

Critical thinking is a term that should be used not only in learning, but in many other situations that involve information processing, problem solving, decision making and learning. It allows ourselves to make a distance from some of our beliefs and prejudices and to realize our own logical conclusions about what we do. (Bjelanovic Dijanic, 2011.):

Critical thinking is a complex concept which is difficult to define but it is briefly defined as (Bjelanovic Dijanic, 2011.):

- Independent thinking (either it is your own thinking or accepting someone elses),
- ➤ It is based on information which presents the starting point of thinking,
- ➤ It starts with questions and problems and comparison with different points of view
- It requires submissions on four elements: the claim, reasons, evidence and guarantee

Critical thinking is a self-governing, self-disciplined, self controlled and self correcting opinion that requires strict standards of prudential procedures and impose effective communication and problem-solving skills and a commitment to overcome our innate egocentrism and sociocentrizam (Paul i Elder, 2004).

# COLLABORATIVE LEARNING AND CRITICAL THINKING

Development and improvement of critical thinking through collaborative learning is one of the primary goals of education. Critical thinking is important for quality work in todays life. Consciously and reasonable learning in interactive teaching with a focus on critical thinking, helps the student achieve positive results in any area. Critical thinking is, therefore, an opinion of a higher order because it involves a process of assessment, analysis

and synthesis and has no mechanical application.

### **CONCLUSION**

According to many studies we can conclude that collaborative learning promotes the development of critical thinking through discussion, clarification of ideas and evaluation of others' ideas. The classical teaching and collaborative learning are in most cases, effective in obtaining factual knowledge. However, if the purpose of teaching is to enhance critical thinking and problem solving, then the collaborative learning is much more useful.

Collaborative learning is effective when the teacher sees learning as a process of development of student ability. The role of teachers is not in "pouring" knowledge but to be a "consultant" in the learning process. This includes creating and managing meaningful learning content and encouragement of students to think through the real problems.

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