

2<sup>nd</sup> World Conference on Educational Technology Researches – WCETR2012

## Collaborative learning; elements

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### Abstract

This article reviews the essential elements of a collaborative practice. Collaborative learning refers to an instruction method in which learners at various performance levels work together in small groups toward a common goal. Some basic elements should be met to qualify a learning process as collaborative learning, including; positive interdependence: an obligation to rely on one another to achieve the common goal; considerable interaction: members help and encourage each other to learn; individual accountability: members are held accountable for doing their share of the work; social skills: members are encouraged to develop and practice trust-building, leadership, decision-making and communication; and group self-evaluating.

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Selection and/or peer-review under responsibility of Prof. Dr. Hafize Keser Ankara University, Turkey

*Keywords: Collaborative learning, elements, essential, basic;*

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### 1.1. Introduction

Collaboration is a philosophy of interaction and personal lifestyle where individuals are responsible for their actions, including learning and respect the abilities and contributions of their peers. In all situations where people come together in groups, it suggests a way of dealing with people which respects and highlights individual group members' abilities and contributions. There is a sharing of authority and acceptance of responsibility among group members for the groups' actions. The underlying premise of collaborative learning (CL) is based upon consensus building through cooperation by group members, in contrast to competition in which individuals best other group members. CL practitioners apply this philosophy in the classroom, at committee meetings, with community groups, within their families and generally as a way of living with and dealing with other people (Panitz, T., 1996).

Collaboration is a promising mode of human engagement that has become a 21st century trend. The need for think together and work together on critical issues has increased (Austin, J. E., 2000; Welch, M., 1998), causing to stress on from individual attempts to team work and from autonomy to community (Leonard, P. E. & Leonard, L. J., 2001).

CL occurs when small groups of members help each other to learn. CL is sometimes misunderstood. It is not having members talk to each other, either face-to-face or in a computer conference, while they do their individual assignments. It is not having them do the task individually and then have those who finish first help those who have

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not yet finished. And it is certainly not having one or a few members do all the work, while the others append their names to the report (Klemm, W.R., 1994). This article attempts to characterise the essential elements of CL, while presenting the basic concept of the term.

### *1.2. Material and method*

This article reviews the key elements for learning in collaboration. This paper starts with the definition of CL and continues with the basic elements necessary to qualify the practice of learning as a collaborative one. Key issues were identified through review of literature on CL and through review of literature on key elements thereof.

### *1.3. Results*

There are three ways when individuals take action in relation to the actions of the others; Brown and Lara (2011) cited Johnsons (2009). One's actions may promote the success of others, obstruct the success of others, or not have any effect at all on the success or failure of others. In other words, individuals may be:

- E Working together cooperatively to accomplish shared learning goals;
- E Working against each other (competitively) to achieve a goal that only one or a few can attain;
- E Working by oneself (individualistically) to accomplish goals unrelated to the goals of others.

CL is an educational approach to teaching and learning that involves groups of learners working together to solve a problem, complete a task, or create a product. In the CL 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. In a CL setting, learners have the opportunity to converse with peers, present and defend ideas, exchange diverse beliefs, question other conceptual frameworks, and are actively engaged (Srinivas, H., 2011).

Johnson and colleagues (1990) pointed out 5 basic elements in CL. CL is not simply a synonym for members working in groups. A learning exercise only qualifies as CL to the extent that the following elements are present:

- E Clearly perceived positive interdependence;
- E Considerable interaction;
- E Individual accountability and personal responsibility;
- E Social skills, and;
- E Group self-evaluating.

Clearly perceived positive interdependence; 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. Members need to believe that they are linked with others in a way that ensures that they all succeed together. Positive interdependence is the belief by each individual that there is value in working with other members and that both individual learning and work products will be better as a result of collaboration.

Considerable interaction; Members help and encourage each other to learn. They do this by explaining what they understand and by gathering and sharing knowledge. Group members must be done interactively providing one another with feedback, challenging one another's conclusions and reasoning, and perhaps most importantly, teaching and encouraging one another.

Individual accountability and personal responsibility; All members in a group are held accountable for doing their share of the work and for mastery of all of the material to be learned.

Social skills; Members are encouraged and helped to develop and practice trust-building, leadership, decision-making, communication, and conflict management skills.

Group self-evaluating; 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.

#### 1.4. Discussion

Over 2400 years ago, Confucius declared:

- E Tell me and I will forget,
- E Show me and I may remember,
- E Involve me and I will understand.

Involving or actively engaging learners was viewed by Confucius (some thousands of years ago) as a means of most effectively and appropriately assisting our learners in retaining the presented information. The involvement Confucius calls for is the same cry 21st century members are expressing in their desire to be involved and engaged in their learning process (Hsu, A. & Malkin, F., 2011). Learning unfortunately is not an automatic consequence of pouring information into another person's head. It requires the person's own mental processing. Therefore, lecturing by itself will never lead to real learning (Silberman, M., 1996). Silberman modified Confucius saying from above, and made it into, what he called, The Active Learning Credo, which develops the idea of how people learn further:

- E What I hear, I forget
- E What I hear and see, I remember a little
- E What I hear, see, and ask questions about or discuss with someone else, I begin to understand
- E What I hear see, discuss and do, I acquire knowledge and skills
- E What I teach to another, I master.

The concept of CL, the grouping and pairing of learners for the purpose of achieving a learning goal, has been widely researched and advocated; the term CL refers to an instruction method in which learners at various performance levels work together in small groups toward a common goal. The learners are responsible for one another's learning as well as their own. Thus, the success of one learner helps other members to be successful (Gokhale, A.A., 1995). The basic elements of CL are discussed in the following:

Positive interdependence is successfully structured when group members perceive that they are linked with each other in a way that one cannot succeed unless everyone succeeds. Group goals and tasks, therefore, must be designed and communicated to members in ways that make them believe they sink or swim together. When positive interdependence is solidly structured, it highlights that:

- E Each group member's efforts are required and indispensable for group success, and;
- E Each group member has a unique contribution to make to the joint effort because of his or her resources and/or role and task responsibilities.

Doing so creates a commitment to the success of group members as well as one's own and is the heart of CL. If there is no positive interdependence, there is no collaboration. When members clearly understand positive interdependence, they understand that each group member's efforts are required and indispensable for group success and each group member has a unique contribution to make to the joint effort because of his or her resources and/or role and task responsibilities [Johnson, R.T., Johnson, D.W. & Holubec, E.J., 1998].

Positive interdependence, despite of its importance in collaborative practice, alone does not generate the degree and intensity of interaction required in CL activities, because:

- E Team members need to think that success of the team depends on the contributions by each member.
- E They need to think that ongoing interactions, particularly face-to-face interactions, are required for success.

Some tasks are positively interdependent, such as report preparation or programming assignments, because they result in a single team product, but they may not require ongoing interactions. The key to positive interdependence is having commitments made to personal success as well as the success of every member of the group (istudy, 2004).

Promotive interaction is set of characteristics in the task or learning activity that requires ongoing conversation, dialogue, exchange, and support. Members need to do real work together in which they promote each other's success by sharing resources and helping, supporting, encouraging, and applauding each other's efforts to achieve. There are important cognitive activities and interpersonal dynamics that can only occur when members promote each other's learning. This includes orally explaining how to solve problems, teaching one's knowledge to others, checking for understanding, discussing concepts being learned, and connecting present with past learning. Each of those activities can be structured into group task directions and procedures. Doing so helps ensure that CL groups are both an academic support system (every member has someone who is committed to helping him or her learn) and a personal support system (every member has someone who is committed to him or her as a person). It is through promoting each other's learning face-to-face that members become personally committed to each other as well as to their mutual goals (Foundation coalition, 2004).

Individual accountability is the structural element required to discourage and lower the likelihood of free riders or social loafing. Individual accountability is the belief by each individual that she/he will be accountable for her/his performance and learning. Individual accountability exists when the performance of each individual is assessed and the results are given back to the group and the individual in order to ascertain who needs more assistance, support, and encouragement in learning. When it is difficult to identify members' contributions, when members' contributions are redundant, and when members are not responsible for the final group outcome, they may be seeking a free ride (Harkins, S.G. & Petty, R. E., 1982; Kerr, N.L. & Bruun, S.E., 1981; Williams, K., Harkins, S.G., & Latane, B., 1981). The purpose of CL groups is to make each member a stronger individual in his or her right. Members learn together so that they subsequently can gain greater individual competency. In a CL setting, members learn to do something together so that they can do it more easily when they are alone. Individual accountability is the structural element required to discourage and lower the likelihood of free riders or social loafing.

The fourth essential element of CL is the appropriate use of interpersonal and small-group skills. In order to coordinate efforts to achieve mutual goals, members must:

- E Get to know and trust each other,
- E Communicate accurately and unambiguously,
- E Accept and support each other, and ;
- E Resolve conflict constructively (Johnson, D.W., 2005, Johnson, D.W., 1991; Johnson, D.W. & Johnson, F.P., 2008).

Members must be taught the social skills required for high quality collaboration and be motivated to use them if cooperative groups are to be productive. The whole field of group dynamics is based on the premise that social skills are the key to group productivity (Johnson, D.W. & Johnson, F. P., 2008).

The fifth essential component of CL is group processing. Effective group work is influenced by whether or not groups reflect on (i.e., process) how well they are functioning. A process is an identifiable sequence of events taking place over time, and process goals refer to the sequence of events instrumental in achieving outcome goals. Group processing may be defined as reflecting on a group session to:

- E Describe what member actions were helpful and unhelpful, and;
- E Make decisions about what actions to continue or change.

The purpose of group processing is to clarify and improve the effectiveness of the members in contributing to the collaborative efforts to achieve the group's goals (Johnson, D.W. & Johnson, F.P., 2008).

### 1.5. Conclusion

CL is an umbrella term for a variety of educational approaches involving joint intellectual effort by members. In the CL 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 a CL setting, learners have the opportunity to converse with peers, present and defend ideas, exchange diverse beliefs, question other conceptual frameworks, and are actively engaged. Positive interdependence that means members are obliged to rely on one another to achieve the goal. If any team members fail to do their part, everyone suffers consequence. They should believe that they swim or sink together; promotive interaction which means members actively teach one another to solve problems and understand concepts. They assist and support one another's efforts to learn; individual accountability to prevent a member from getting a free ride on the work of others and to prevent low quality of work being accepted from an individual by peers in the group; social skills that members learn leadership, decision-making, trust-building, communication and conflict-management skills, and; group self-evaluating which group members discuss how well they are achieving their goals and maintaining effective working relationships, describe what member actions are helpful and not helpful and make decisions about what behaviours to continue or change, are essential elements that qualify a learning practice as CL.

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