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## 21st century learning; learning in collaboration

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### Abstract

Collaboration has become a 21st century trend. The need in society to think and work together on issues of critical concern has increased, shifting the emphasis from individual efforts to group work, from independence to community. This review article attempts to give a clear concept of the collaborative learning, considering the main elements in a collaborative setting and looks on the benefits follow learning in collaboration. 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.

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### 1. Introduction

Learning in collaboration 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 collaborative learning (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).

Brown and Lara (2011) cite Johnsons (2009) that say; there are three ways when individuals take action in relation to the actions of the others. 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:

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

There is persuasive evidence that cooperative teams achieve at higher levels of thought and retain information longer than learners who work quietly as individuals (Johnson, R.T. & Johnson, D.W., 1986). Further evidence comes from Samuel Totten (1991), who claims: The shared learning gives learners an opportunity to engage in discussion, take responsibility for their own learning, and thus become critical thinkers. Proponents of CL claim that the active

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exchange of ideas within small groups not only increases interest among the participants but also promotes critical thinking (Gokhale, A.A., 1995).

This paper attempts to give a concept of CL, to bring the fundamental elements of a learning in collaboration setting while describes the benefits which follow this mode of learning.

### 1.2. Material and method

This article begins with a summary of CL emergence, continues with fundamental elements that a learning in collaboration encompasses and presents what achieved following CL. Key issues for this review article are identified through review of literature on the CL, review of literature on the elements that their presence qualifies learning as a collaborative one and review of literature on the benefits of learning in a collaboration.

### 1.3. Results

Kenneth Bruffee (1996) claims the idea of CL came into being thanks to the efforts of British teachers and researchers in the 1950s and 1960s. After studying the interaction of medical students with their teaching physician, M.L.J. Abercrombie concluded that the medical students who learned to make a diagnosis as a group reached to a good medical judgment, faster than individuals working alone. Bruffee also states that his first encounter with the belief of CL was when he encountered the findings of a group of researchers who thought that CL stemmed from an attack against authoritarian teaching styles (p. 85). During the 1970s, college professors became increasingly alarmed that students seemed to be having difficulty with the transition into writing at the college-level. Researchers looking into this problem decided that the help being offered to students was too similar to classroom learning. They needed not an extension of but an alternative to traditional classroom teaching (p. 86).

CL occurs when small groups of students help each other to learn. CL is sometimes misunderstood. It is not having students 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 not yet finished. And it is certainly not having one or a few students do all the work, while the others append their names to the report (Klemm, W.R., 1994). Woods and Chen (2010) cited Johnsons (1994) that; in order for a CL effort to be more productive than competitive or individualistic methods, five conditions must be met, as:

- Positive interdependence;
- Promotive interaction;
- Individual and group accountability;
- Social skills, and;
- Group processing.

Johnsons (1989) and Pantiz (1999) list over 50 benefits for CL. The list below sets out the advantages to four major categories as in following:

- Social benefits;
  - CL helps to develop a social support system for learners;
  - CL leads to build diversity understanding among students and staff;
  - CL establishes a positive atmosphere for modelling and practicing cooperation, and;
  - CL develops learning communities.
- Psychological benefits;
  - Student-centered instruction increases students' self esteem;
  - Cooperation reduces anxiety, and;
  - CL develops positive attitudes towards teachers.
- Academic benefits;
  - CL Promotes critical thinking skills
  - Involves students actively in the learning process

- Classroom results are improved
- Models appropriate student problem solving techniques
- Large lectures can be personalized
- CL is especially helpful in motivating students in specific curriculum
- Alternate student and teacher assessment techniques;
  - Collaborative teaching techniques utilize a variety of assessments.

In current educational framework, competition is valued over cooperation. By asking group members to identify what behaviours help them work together and by asking individuals to reflect on their contribution to the group's success or failure, students are made aware of the need for healthy, positive, helping interactions (Panitz; T., 1996; Cohen B.P. & Cohen, E.G., 1991).

#### *1.4. Discussion*

Over 2400 years ago, Confucius declared:

- Tell me and I will forget,
- Show me and I may remember,
- 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 students 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:

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

The traditional concept of CL as a group meeting regularly to work together highlights only one type of collaboration between students regarding their learning. 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 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). CL represents a significant shift away from the typical teacher-centered or lecture-centered milieu in college classrooms. In collaborative classrooms, the lecturing/ listening/ note-taking process may not disappear entirely, but it lives alongside other processes that are based in students' discussion and active work with the course material. Teachers who use CL approaches tend to think of themselves less as expert transmitters of knowledge to students, and more as expert designers of intellectual experiences for students-as coaches or midwives of a more emergent learning process (Smith, B. L. & MacGregor, J. T., 1992).

Learning should have these five elements to qualify as CL, including: 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. There are important cognitive activities and interpersonal dynamics that can only occur when students promote each other's learning. Individual students are encouraged to assist others in the group to complete tasks in order to reach the group's goals. In other words there is an expectation that students will help each other so that common goals can be achieved. The third basic element is individual and group accountability. The group must be accountable for achieving its goals and each member must be accountable for contributing his or her share of the work. Social skills must be taught to students just as purposefully and precisely as academic skills. Leadership, decision-making, trust-building, communication, and conflict-management skills empower students to manage both teamwork and task work successfully. Group processing exists when group members discuss how well they are achieving their goals and maintaining effective working relationships. Group work is effective when group participants reflect on how well they function as a group (Johnson, D.W., Johnson, R.T. & Smith, K.A., 1991; Green, K. 2010). In education, collaboration is intended to promote the most effective teaching possible for the greatest number of students (Pugach, M. & Johnson, L. J., 1995). Collaboration has become a 21st century trend. The need in society to think and work together on issues of critical concern has increased (Austin, J. E., 2000; Welch, M., 1998) shifting the emphasis from individual efforts to group work, from independence to community (Leonard, P. E. & Leonard, L. J., 2001).

Many benefits have been ascribed to CL. Some of the advantages that are achieved through CL include:

As students are actively involved in interacting with each other on a regular basis in an instructed mode, they are able to understand their differences and learn how to resolve social problems which may arise (Johnson, R.T. & Johnson, D.W., 1985). CL develops social interaction skills (Cohen, B.P. & Cohen, E.G., 1991). CL builds more positive heterogeneous relationships (Webb, N.M., 1980) and encourages diversity understanding (Swing, S.R. & Peterson, P.L., 1982). Higher level thinking skills are developed by CL (Webb, N.M., 1982). Students are committed in the learning process. When students work together the learning process becomes interesting and fun despite the repetitive nature of the learning process (Panitz, T., 1999). CL develops students' oral communication skills (Yager, S., Johnson, D.W. & Johnson, R.T., 1985). CL involves students actively in the process of learning (Slavin, R.E., 1980). CL is student centered, leading to an emphasis on learning as well as teaching and to more student ownership of responsibility for that learning (Lowman, J., 1987). CL leads to self-management by students (Resnick, L.B., 1987). Students are trained to be ready to complete the tasks and work together within their groups and they must understand the subject that they plan to contribute to their group. CL provides many opportunities for alternate forms of student assessment (Panitz, T. & Panitz, P., 1996). CL reduces classroom anxiety created by new and unfamiliar situations faced by students (Kessler, R., Price, R. & Wortman, C., 1985).

### 1.5. Conclusion

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 students to be successful. There are 5 basic elements characterize CL, that are: Clearly perceived positive interdependence, Considerable interaction, Individual accountability and personal responsibility to achieve group goals, Use of the relevant interpersonal and small group skills and, Frequent and regular group processing of current functioning to improve the group's future effectiveness. Many benefits have been described for CL, which are categorized in this article to 4 main groups of: social, psychological, academic and assessment.

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