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COOPERATIVE LEARNING A CURRENT SNAPSHOT: BEFORE, DURING AND AFTER IMPLEMENTATION

ABSTRACT

Cooperative Learning's (CL) implementation has received an incredible amount of research attention from academics held in high esteem. However, the researcher claims that it is up to every new generation of educators to formulate their conclusions regarding CL's effectiveness in a contemporary classroom. Although the author begins by situating CL as a pedagogical tool that goes back nearly fifty years and insinuates a progression in use, he also claims CL should not only be compared to itself for scrutiny but it should be compared with the current generation's academic needs. Later Baby Boomers that graduated high school in the 1980's experienced a radically different academia than Generation X, Y, or Gen Z'ers, consequently a valid comparative analysis must see CL through present day lens. The author further claims, with the exception of references to CL's beginnings, the date parameter for findings are limited to the last fifteen months which includes all of 2017 and half of 2016. The document continues by contextualizing CL's precursors along with its distinctive historical genesis. Furthermore, the objective of this paper is not only to take a snapshot of the current CL literature based on the iconic five elements of CL formulated by David W. Johnson, Roger T. Johnson, and Edythe Johnson Holubec (1989), but to also provide a litmus test on the current relevancy of CL in thepost-millennial age.The author claims his theoretical framework centers on several factors composed of cognitive, behavioral, and social interdependence. The conclusions are based on three tendencies or categories in the literature that point to a) pre-implementation, b) implementation and c) post-implementation. These three tendencies are also described as the rationalization for implementation, context of the implementation, and the effects of CL's outcomes. Furthermore, the results chronical the importance of CL in maintaining a student's social presence in light of current social or anti-social trends.

Keywords: cooperative learning, social learning, positive interdependence, individual accountability, interpersonal skills.

INTRODUCTION

The death of the "era of competitive and individualistic learning" was pronounced in the 1980's. An era marked by teachers that rarely asked students to do group assignments much less rely on someone else for a grade regardless of how often Big Bird sang cooperation's praises on Sesame Street (Johnson, Johnson & Holubec, 1986). That period saw grades coveted much like first place medals at a UIL competition. The drawback was that everyone knew only one winner would rise to the top to set the bar and that everyone else would follow. Ultimately, preferred pedagogies underscored the traditional form of instruction that promoted competitive learning through individual merit (Slavin, 1995).

However, the overall issue was not with the overachievers as contenders that nipped at each other's feet for competition but with everyone further below, the low performing students that seemed to know they would never be considered for the laurels and thus performed mediocre at best (Deutsch, 1962; Johnson & Johnson, 1989). Consequently, the idea of studying together was only used as an excuse by jocks and cheerleaders when wanting to escape their parent's watchful eyes to sneak out on a date. Needless to say, academics was not a team or contact sport even though some pedagogues often used a firm tap on the head or a swift paddle on the other end.

THE AIM OF THE STUDY

Fast forward three decades and one would think the current curricular trend would de-emphasize competition for the high grades that only benefitted the top performers at the cost of the rest of the students and for the elusive ranking. It stands to reason that Cooperative Learning (CL) would be the law of the land and end rivalries, but is it, or does it? And, if not, then what is the relevancy of CL in the contemporary classroom? Does it continue to get acceptance or is it losing steam? For that matter, what is Cooperative Learning and how is it doing today? Therefore, this paper intends to answer these questions by highlighting a snapshot of the current research on Cooperative Learning.

While the intention to either reject or validate CL is a clear goal, the methodology to take on the task was not a clear-cut path, however, merely mentioning it's historical context, categorizes into a chronologically comparative effort. This effort was further molded by CL's organization which is distinctively marked by its processes. From there it is a simple jump to categorize this comparative review of CL's current literature into the three tendencies of its implementation: before, during, and after implementation. Conversely, it is also beyond the scope of this paper to chronicle the history of Cooperative Learning (CL), even though a brief review of its contextual antecedents seems necessary.

THEORETICAL FRAMEWORK AND RESEARCH METHODS

Group work within education evolved from several well-known theories, chief among them cognitive-developmental theory (Piaget, 1950), the theory of cognitive development (Vygotsky, 1978), social-cognitive theory (Bandura, 1977) which emphasized learning, through discursive processes such as debate or social interaction and confrontation. Behavioral-learning theory emphasized the debate process by stating that learning takes place through the interaction with others which was a direct contrast to the old pedagogue style that pushed the idea that learning was to be done passively by listening to lectures and regurgitating ideas (Johnson & Johnson, 2015; Duhigg, 2016; Baloche & Brady, 2017).

While the use of Cooperative Learning (CL) as a pedagogical skill enjoyed quite a bit of limelight within academia, and its foundation traced back to such icons as J. Dewey (1916), L. Vygotsky (1926), M. Deutsch (1949), R. E. Slavin (1980), it is D. Johnson, R.Johnson, & E. J. Holubec (2008) who introduced the five elements that are now regarded as defining CL. In their version of cooperative learning which not only included the "face-to-face" interaction along with "positive interdependence, individual accountability" as well as "group process" which included a metacognitive wrap up or knowing why and how the group is to proceed, these innovators undergirded CL with the idea of social or "interpersonal skills" that comes with interacting in a cooperative learning environment and is crucial in this day and age (Johnson, Johnson & Holubec, 2008; Johnson & Johnson, 2015; Johnson & Johnson, 2017).Consequently, as a theoretical framework, this paper also advocates what Bandura (1982) termed social cognitive theory and its reciprocity of behaviors, environmental factors and personal cognition as well as social interdependence.

RESULTS

The ensuing literature review, as three research inclinations, separates CL scholarship into the following three tendencies: the rationalization for CL, CL's five elements as organizational cohesiveness, and CL's effective outcomes. However, the intent to capture the latest scholarship discourse is by no means exhaustive or to be seen as complete but rather as a barometer or indicator of the status quo. For a complete meta-analysis refer to Johnson, Johnson, & Stanne (2000) or for a much more recent and more thorough analysis see David R. Arendale's 488-page annotated bibliography titled: Postsecondary Peer Cooperative Learning Programs: Annotated Bibliography which not only enumerates an exhaustive amount of literature on CL but also branches out to collaborative learning groups (CLG) and learning communities (Arendale, 2017).

A further simplification of the previously mentioned tendencies in CL research would be to situate the text as occurring before, such as in promoting and convincing for the use of CL, during or recounting the strategy as it has been used, and after the implementation to highlight the results. Nonetheless, it is important to note that these tendencies are not exclusive of each other. Granted that some researchers such as David and Roger Johnson along with Edythe Johnson Holubec speak to more than one or all of these tendencies. The majority touch on them or tend to either enumerate the justification or the reasons for CL, explain its implementation process, recount how the content works in relation to the five elements established by Johnson, Johnson, & Holubec, or point out the positive or negative results of CL.

Rationalization (Before)

The first tendency promotes by rationalizing. The tendency attempts to sell CL includes literature that supports CL as vital to new or aspiring teachers. As previously mentioned CL has a great lineage, however, the defense for its contemporary use falls on every new generation of teachers and researchers. And, even though referencing precursing research is a time-honored tradition, new generations of teachers should seek validation on the grounds of assuring that they are ethically doing the right thing by their students. The tendency starts with the icons who continue to expand their expertise; they are David W. Johnson and Roger T. Johnson. Their recent 2017 article titled, *The use of the cooperative procedure in teacher education and professional development* takes their concept formulated in the early 1980's and applies it to the current classroom. Similarly, Cooperative learning and teaching citizenship in democracies by the same researchers who seem to model their ware by innovatively producing a masterful lesson plan disguised as an "instruction" based on the CL process (Johnson & Johnson, 2016). This effort, promoting confidence, in CL is often reiterated in current literature (Baloche& Brody, 2017; Bell & Hernandez, 2017; Buchs, Filippou, Pulfre, & Volpe, 2017; Gillies, 2016).

Continuing the underlying notion of teacher training in need of CL training has become so prominent that the literature points out that CL should be inculcated at its inception or part of the curricula for new teachers. CL takes on the challenge and attempts to become part of the framework for educator development. The tendency in literature now turns to a call to arms for teacher educators to incorporate CL in teacher training especially since Higher Education who leads the research on CL seldom uses it in the tertiary classroom. Since teachers, as students, value what is important to their teachers, then CL should be modeled as part of in-service and professional development (Baloche & Brody, 2017; Buchs, Filippou, Pulfre & Volpe, 2017; Johnson & Johnson, 2017: Jollife & Snaith, 2017; Miquel & Duran, 2017; Slavin, 2014; Tombak & Altun, 2016).

Cohesion (During)

The second tendency is to see CL for its content. This second tendency leaves behind the context of CL for the content. To this picture comes a set of Spanish researchers with their project from the University of Oviedo (Spain) which they describe in their article, Design,and validation of a questionnaire to assess cooperative learning in educational contexts (2017). Furthermore, Javier Fernández-Rio, Jose A. Cecchini, Antonio Méndez-Giménez, David Méndez-Alonso, and Jose A. Prieto have formulated the "Cuestionario de AprendizajeCooperativo (CAC)" or Cooperative Learning Questionnaire (CLQ) that is so promising that it should be in any good review (Fernández-Rio et al., 2017). These researchers take a set of questions that have been intentionally vetted and categorized by the five basic elements that currently serve as the litmus test for Cooperative Learning (Johnson et al., 1984). Although most of the article has been translated and published in English, as of this writing, an English translation of the CLQ had not been found; the following is offered as a possible translation that categorizes the questions by CL's basic elements. The numbers refer to the original lineup.

Positive Interdependence

3. My colleagues help is important in completing the tasks

8. We cannot finish an activity without the contributions of our colleagues

13. It is important to share materials, information to do the tasks

18. The better each member of the group does their homework, the better results the group gets.

Individual and group accountability

5. Each member of the group relates and interacts in group tasks.

10. Each group member strives to partake in the activities of the group.

15. Each group member should try to participate, even if they do not like the task.

20. Each member of the group must do their part of the group's work to complete the task.

Promotive interaction

4. Groupmates relate and interact during tasks.

9. Interaction among classmates is necessary to do the task.

14. We get to know each other to do the activities.

19. We work directly with each other.

Interpersonal skills

l. We work on dialogue, listening skills and/or debate.

6. We propose and defend ideas, knowledge, and points of view with our colleagues.

11. We listen to the opinions and points of view of colleagues.

l6. We reconcile different opinions or conflicts.

Group processing

2. We work in common so that the whole group knows what is being done.

7. We make decisions in a consensual way among the classmates of the group.

12. We discuss the ideas among the members of the group.

17. We reflect individually and jointly within the group (Fernandez-Rio, Cecchini, Méndez-Giménez, Méndez-Alonso & Prieto, 2017).

In short, Fernández-Rios et. al. set out "to design and validate an easy-to-use questionnaire to assess the use of the five basic elements" as well as formulate a "global cooperation factor" which may be used to validate any CL course and thus prove to any sceptics that CL is a valid and worthwhile pedagogical tool (Fernandez-Rio, Cecchini, Méndez-Giménez, Méndez-Alonso & Prieto, 2017).

Comparably, Javier Fernandez-Rio'sindividual work also centered on the context of CL as a "proposal" that combines CL with the adventure education model to produce a "cooperative learning cycle" that focuses on interaction and also serves as an explanation as instruction (Fernandez-Rio, 2016). This innovative "cooperative learning cycle" incorporates three phases, "building group cohesion, CL as the content, and CL as the framework" (Fernandez-Rio, 2016). Upon deeper analysis Fernandez-Rio's short but loaded article supplies insights that go far beyond the school gym or playground for it allows the student to examine CL's five elements as they are deployed, ultimately resulting in a thorough immersion in the CL methodology.

Outcomes (After)

The third tendency deals with the effects of CL. This section contains the proven results of CL and includes the outcomes as social benefits (Johnson & Johnson, 2016; Bowman-Perrott, DeMarin, Mahadevan, & Etchells, 2016). However, literature about the societal benefits is outflanked by information about student engagement and motivation which are by far the best-known outcomes resulting in student's better quality assignments (Chen & Chuang, 2016; Eymur & Geban, 2017; Serrano & Pons, 2014; Gull & Shehzad, 2015). Tombak & Altun state that "CL affects the academic success of the students at university level" (2016). The authors justify their honing in on CL as the preferred pedagogical style based on the notions that CL increases motivation in five areas: "a motivating program, enjoyable and different activities for students, defining a goal, peer motivation, and encouraging parents to learn" and are based on V. Thompson's Methodologies to motivate students (as cited in Thompson, 1987).

While the literature regarding before, during, and after implementations of CL methods seem purely positive the only hint at negative aspects points to either lack of teacher preparation or mandates toward standardized testing (Dyson, Colby & Barrat, 2016). And, as a mere hint, the current literature seems to have avoided any adverse suggestions. As such the Dyson, Colby, & Barrat article relates to teachers in a physical education course. While most students are rarely predisposed to cooperation regardless of how many times they heard Big Bird or Oscar the Grouch stressed it. Students that do not actively participate according to Joyce (1999) do nothing within the group and expect those that participate will do all the work, thus rendering the cooperative process null. Similarly, the over-aggressive student that cannot settle for the low grade will take over and do all the work. In essence, the cooperative learning disappears. Consequently, the opportunity for research and literature on the subject should address the issue.

CONCLUSIONS

However, these negative aspects can be resolved through professional development which analyzes Johnson and Johnson's cooperative learning structure as well as advanced planning and student practice. Students require modeled lessons in which they see and understand what a cooperative learning environment requires. Interdependence, as well as individual accountability, requires that all members be involved in the lesson and group talk involves that the whole group participate in goal setting and throughout the complete process.

Based on the three tendencies, current literature holds Cooperative Learning in high esteem; it commands a prominent status in any contemporary teacher's pedagogy. CL's credentials, as reasons for implementation, go back to theories and theorists similarly

held in high esteem. CL's tried and proven processes of implementation stand on their own merit. CL's effects equate to social etiquette training and are based on tried and proven social learning methods that hold their own.

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