

# Collaborative Learning: The Importance of Teacher's Knowledge of Group Dynamics

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**ABSTRACT:** The paradigm change which occurred as a result of the introduction of constructivism as the prevailing theory of learning resulted in education focusing on the learner. The emphasis is not only of one learner but groups of learners working in small groups, generating their own knowledge and helping each other to learn. One of the learning strategies resulting from this development is Collaborative learning. It is the temptation to leave learners alone to seek necessary knowledge alone. A good teacher knows, however, that the success of collaboration as a learning technique rest to a large extent on his knowledge of how groups work. This work looked at the importance of the teacher's knowledge of group dynamics contributes to making collaborative learning effective.

**KEYWORD:** Collaborative learning. Group dynamics.

## Introduction

Quality is important in education and there is a lot of emphasis on it. It is the yardstick with which the success of the education of a country is measured (UNESCO, 2015). It influences the decision of parents to send their children to school and keep them there. It also influences what students learn, how they learn, how long they stay in school, how regularly they attend school and what they draw from their education. In spite of the importance, however, there has been no consensus of what constitutes quality in education (UNESCO, 2004). Quality is relative (Manilla, 2005; Robert-Okah, 2003). What constitutes quality to one person and in one situation might not be seen in the same light by another person and in another situation. A good example of this is the view of quality education by the ancient Greek states of Sparta and Athens. While Sparta saw quality education as developing citizens that were physically able and military inclined, her sister state, Athens saw quality education as providing education that enabled the individual to participate in the Athenian Assembly and providing education that fit the intellectual capacity of the individuals (Manilla, 2005; Robert-Okah, 2003).

Quality is progressive, temporal and continuously evolving with time and environment (UNESCO, 2015). The concept of quality is always changing. What is seen as quality education today might not be seen as quality in ten years' time. Modern educational theorists like the Behaviourists, Cognitivists and Constructivists have had different views of what constitutes quality education. The Behaviourists' determination of quality education is that which a teacher uses a lot of resources to manipulate the learning environment by reinforcing and rewarding desired responses. By doing this, learners acquire knowledge

through conditioning. For the Cognitivists the quality of education is determined by how well the teacher is at finding situations for the learner to make use of knowledge acquired by constantly practicing this knowledge and applying it in daily life situations (Slavin, 2000). The Constructivists see quality of education as knowledge gained through a process of learners actively constructing or building new knowledge by engaging in meaningful experiences. To do this the learners have to be actively involved in the learning process, collaborate with other learners and teach each other in a rich learning environment using a variety of media and technology (Heinich et al, 2002). For the constructivists quality education is not about the teacher teaching but the learners learning on their own, and teaching and learning from one another.

Although there has been no consensus of what constitutes quality education over time, there are views of quality education that prevail at certain times, and at the present time, quality education is based on the Constructivists' view (Heinich et al, 2002; Kretchmar, 2019). Constructivism is the prevailing theory of learning amongst education planners and philosophers in the 21<sup>st</sup> century. Quality in constructivists' learning involves the following:

- a. Active participation of learners
- b. Collaboration among learners
- c. Peer teaching
- d. Providing a rich learning environment
- e. Motivation that is dependent on learners' confidence.

### **Collaborative Learning**

The shift from the teacher teaching to the learner learning for himself and collaborating with other learners has also caused a shift from the traditional methods of teaching to new methods that actively involve the learners. There are several of these innovations in the educational system. One of such methods is Collaborative learning. Collaborative learning is an umbrella term for a variety of educational approaches involving joint intellectual effort by students or students with teachers together (Smith and MacGregor, 1992; Samsivero, 2016). Collaborative learning involves students of various performance levels working together in small groups towards a common academic goal. The students work mutually to search for information, meaning and understanding, explore a significant question, find solution to a problem or create a meaningful product. They participate in small-group activities in which they not only generate knowledge but share this knowledge and their expertise (Kirshner, 2001; Scager et al, 2011). It is a student-driven activity in which students are responsible for their own learning as well as one another's learning. Students work independently on their specific task within the group to achieve the group's common objective (MasterClass, 2021). They take responsibility for their team group learning and succeeding, but the role of each individual, resources and organisation is left for the team to decide and direct (Knowledge Hub, 2022). Thus, the success of one student helps other students to be successful (Gokhale, 1995). In collaborative learning the teacher usually acts as a facilitator (Scager et al, 2011).

### **Features of Collaborative Learning**

Collaborative learning has the following features:

- a. Students work in small groups to understand a concept, solve a problem or create a product.
- b. Students engage one another to ask for information, evaluate their ideas and monitor the work together.
- c. In spite of working together, each student is responsible for and accountable to each other.

- d. It can take the form of face-to-face communication like a group of students discussing a lecture or computer platform like students working together over the internet in a shared assignment at a chat room or online forum.
- e. It creates an environment where members co-operate by sharing experiences and take different roles (Omieibi-Davids, 2021; MasterClass, 2021).

### Principles of Collaborative Learning

Collaborative learning is built on the following principles:

- a. The learner is the primary focus of instruction
- b. Learners do not just receive knowledge, they contribute to the common trove of knowledge
- c. Interaction and active participation is very important
- d. Working in groups is an important mode of learning
- e. Learning should be related to developing solutions to real life problems and situations (Centre for Teaching Innovation, 2022; Mercedal, 2018).

### Collaborative Learning Task

Some collaborative tasks used in the teaching-learning process are as follows:

- a. Co-operative learning: Co-operative learning, also known as Student Team Teaching (Slavin, 1995) is an instructional strategy that involves a small heterogeneous group of learners working together to master an academic content while working together to learn collaboration and social skills. It is a type of collaborative learning (Gillies and Ashman, 2003; Knowledge Hub, 2022).
- b. Collaborative writing: This is a written work that is created by multiple people working together (Kollar et al, 2006).
- c. Problem-solving: This is a process through which an individual or group of people attempt to identify discover or invent effective means of coping with problems encountered in everyday living. Groups set up for this are known as Problem solving or Puzzle groups (Amsel, Langer and Loutzenhiser, 1991; Knowledge Hub, 2022).
- d. Discussion: Discussion is a free guided and purposeful examination, argument or expression of views and ideas on a given issue, problem or situation. It is usually between 2 or more person interacting verbally with each other. The use of this method is based on the assumption that every individual can make meaningful contributions to a topic. The essence of any discussion is usually the collective and public evaluation of ideas (Omieibi-Davids, 2017).
- e. Study Group: A small group of people who meet regularly to discuss shared field of study. They draw on the background and abilities of the members to determine the material to be covered in test or examinations of an educational programme (Herrity, 2022).
- f. Peer tutoring: Also known as peer teaching, peer editing, peer mediated learning and student' team teaching, it is an instructional strategy that involves students serving as academic tutors and trainees. It is a learning strategy in which high performing students are peered with low performing students to practice academic skills and master content. It can be done on one-on-one basis by two learners or in small groups (Brittany and Walker, 2013; Sturdivant, 2021; Okoroma, 2013; Cook, 2022).
- g. Microteaching: Microteaching is a scaled down teaching encounter in class size, time, objectives and content carried out among peers whose purpose is to enable trainee teachers learn teaching skills from

each other. This is done by viewing the training of one's peers and analysing and making inputs on whether it is good or not so good (Omieibi-Davids, 2021).

### **Factors That Affect Collaborative Learning**

The factors that determine the effectiveness of collaborative learning are the following:

- a. Group Composition
- b. Group size
- c. Teacher's intervention
- d. Differences in learning style
- e. Consideration for gender and ethnicity
- f. Clearly defined task
- g. Safety of students (Gokhale, 1995; Johnson and Johnson, 1986; Totten et al, 1991; Thirteen, 2004).

### **Need For Collaborative Learning in Nigerian Education**

There is a need for collaborative learning in the Nigerian school system. Some of the reasons for this need are the following:

- a. The advances in technology and changes in organisational infrastructure has put an increased emphasis on teamwork within the workforce of many organisations. This awareness that for work to be efficient in modern time people need to rely more on other people has made it necessary for students to imbibe the spirit of collaboration from a young age (Gokhale, 1995).
- b. There is a shift in paradigm from the teacher teaching to the learner learning in the school system. This has brought about a shift from behaviourism and cognitivism where the emphasis is on helping the learner learn to Constructivism which emphasises the learner actively participating, generating knowledge for himself and sharing his knowledge and expertise with others (Heinich et al, 2002).
- c. The high failure rate that has persisted in the Nigerian educational system in the past few years requires that there is a shift in the traditional way of teaching and learning (WAEC Chief Examiner's Report, 2020).
- d. The prevailing religious and ethnic intolerance all over the world and in Nigeria in particular requires that learners collaborate and learn to appreciate the worth of other people instead of being in the same classroom without any kind of intellectual or social interaction (Oise-Oghaede, 2022; Sulaiman, 2016).
- e. Collaborative learning reduces competition in the classroom and encourages learning from each other.

### **Benefits Of Collaborative Learning**

Collaborative learning has a lot of benefits in the educational system. Some of these are as follows:

- a. It engages students in active participation in the learning situation
- b. The active exchange of ideas within small groups increases interest among participants and promotes critical thinking
- c. Co-operative teams achieve higher levels of thought and retain information longer than students who work quietly as individuals.

- d. The shared learning gives students the opportunity to engage in discussion and take responsibility for their own learning
- e. It encourages learners to work together rather than compete as is the emphasis in traditional classrooms.
- f. It encourages exposure and increase in understanding of diverse perspectives of a particular subject matter.
- g. It promotes a positive attitude towards the subject matter and self-esteem in students
- h. It strengthens the community bond, socialisation and communication skills (Sansivero, 2016; Centre for Teaching Innovation, 2022; Herrity, 2022; Johnson and Johnson, 1986; Totten et al, 1991; GDRC, 2022).

### **Challenges to Collaborative Learning**

The challenges of using collaborative learning in the school system are the following:

- a. Students are hesitant about group work because of the occurrence of interpersonal conflicts, logistical issues and ‘free-riders’. The personality conflicts concern the presence of withdrawn, quiet or passive students who have to be coaxed to participate and domineering, overbearing and loquacious students who believe their way is the only way. Free-riders or free-loaders are students who do not contribute anything to the group work but benefit from whatever reward the group attains. Such students cause anger and poison the group process (Smith and MacGregor, 1992; Middlecamp, 2022).
- b. Pseudo learning groups occur. This occurs when students divide the group work, do it individual and submit the different part together without the group sitting together to discuss it or study it together. In doing this no group member knows what the other members have done and so do not learn from the process or the submitted work (Volet, 2009).
- c. Collaborative learning is rarely successful without group reward. There has to be a reward for collaboration for the members. This should be a strong incentive such as grades (Slavin, 1995; Serrano and Pons, 2007).
- d. Group Hijack is a problem. Some students may take over the activities of the group and impose their views on other members (Middlecamp, 2022).

### **Groups**

A group is any number of 2 or more people with similar norms, values and expectations who interact with one another on regular basis (Shaefer, 2002). A group is two or more persons who interact in such a way that each person influences and is influenced by each other (Chand, 2018). A group is not just any collection of people who are gathered together at a particular place. For instance, a stadium may be full of people seated closely together, but it does not mean they are a group. To be a group the members need to have similar norms, values, characteristics and interact regularly with each other, communicate with each other, are dependent on each other and affect each other (Gencer, 2019).

### **Group Dynamics**

There are several types of groups. While each type of group is relevant for different purposes, teachers, educational planners and modern educational trends particularly favour small groups (Slavin, 2000). This is also the concern of the field of group dynamics. The field of group dynamics is primarily concerned with small group behaviour. Group dynamics is the study of the nature and development of small groups (Chand, 2018). This relates to how they are formed, interact and influence each other. The emphasis on small groups came about as a result of its effect on learning. Some of the reasons are the following (Schaefer, 2003; Gencer, 2019; Thirteen, 2004).

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- a. Learners actively participate in class work.
- b. It ensures interaction in a direct and intimate manner.
- c. There are more opportunities for individuals in a small group to contribute in the activities of the group.
- d. It is more difficult to ignore certain members or viewpoints in a small group. Thus, there is the tendency for every viewpoint to be heard because each member has more time to speak or participate.
- e. It is easier and more appropriate to practice in small groups in a laboratory environment
- f. Identity of individuals and their effect on society is better revealed in small groups

### Formation Of Groups

Small group formation is a predictable flow of behaviour that occurs when a collection of people or strangers are put together in a restricted space or environment (Andersen and Taylor, 2010). The tendency is that when this is done, like in a classroom or work place, people will naturally tend to interact with other people. At the beginning people will gather in twos and threes to discuss the purpose of the gathering. Gradually these groups break up and reassemble with other people until people with similar characteristics, norms, values and expectations find themselves together on regular basis. As they interact they tend to pass on their way of thinking and acting to each other. This could be language, values, dressing and leisure activities (Shaefer, 2002). They influence each other and help each other overcome problems and weaknesses.

The process of formation of groups is not usually a smooth process. This is so irrespective of whether the groups are formed by the members themselves or by the teacher. It is not a process that is undergone without conflict. Some of these conflicts or disagreements are as a result of norms and values, differences in sub-goals and the means of achieving them, differences in choice and allocation of resources to achieve goals, fights over rewards, punishment and roles in the group (Pauli et al, 2008).

There are several stages of group formation. Some of these are the following (Tuckman, 1965; West Chester University, 2022; Upwork, 2021):

- a. Forming: This is the first stage of forming groups. At this stage members of the group are cautious in their speech, actions and attitude towards each other. At this stage they pretend to get along with each other and so ignore or accept the behaviour of the others.
- b. Storming: At this stage of the process members are less cautious of their speech and attitude towards each other because each member is trying to assert himself as a bonafide member of the group. At this stage members let down their cautiousness and politeness barriers and try to get down to the real issues of the group. This usually results in tempers flaring up and shouting bouts as each person tries to assert his view or decision.
- c. Norming: At this stage the members of a group start to develop respect for each other. They reach a stage where they begin to get used to working with each other. It gets to such a level that they are actually concerned about the absence of each other from a class or activity. This leads to trust and productivity because they have an understanding of the values or attitudes of each person and can accommodate such.
- d. Performing: At this stage the members of the group work together to achieve a common goal on a highly efficient and co-operative basis. Instead of quarrelling about roles and so on, they are aware of their roles in the group and how best to go about it in order to achieve set objectives.
- e. Adjourning/Mourning: At the end of the activity which brought the group together, the group is dissolved. The mourning stage, which is also known as the adjourning stage, is the end of the group. In groups that have worked well together to achieve their set goals, this is a difficult stage. This is because

they have actually gotten used to working together, and sometimes, actually miss the faults and weaknesses of the other members that have caused irritation at the beginning. A group that does not achieve its objectives does not get to this stage because they are happy to end the alliance (Scully, 2020).

### **Managing Groups in the Classroom**

Managing learners is a difficult task in any situation. This is even more difficult when these learners are in groups and are required to participate actively rather than passively in the learning situation. Some ways of managing groups are the following:

- a. Divide the class into smaller group of between 3 and 8. Ensure that the groups are heterogeneous in performance levels, gender, interest groups, ethnic groups, religious groups, and so on.
- b. Provide opportunity for students to develop rapport and group cohesion.
- c. Introduce the task. Give the group clearly defined objectives they are to achieve.
- d. Explain how the groups will work and how students will be graded.
- e. Give students enough time to carry out the activity. This will enable them create work plan, plan for deadlines and divvy up responsibilities.
- f. Establish rules for participation and contributions. Have the students establish these rules. Examples of such rules are penalties of those who fail to carry out their tasks or responsibilities.
- g. Openly discuss in class ways to respond effectively to conflicts that jeopardise group learning (GDRC, 2022).
- h. Assign roles to group members and rotate roles around the group from time to time (Smith and MacGregor, 1992). One student can be group leader/coordinator whose role is to set and keep discussion or activities going, pose relevant questions and is motivating; another note-taker, another summarizer, another time keeper, another planner of next step.
- i. Incorporate self and peer assessment for group members to evaluate their own and each other's quality and quantity of contribution.
- j. Check on groups intermittently but encourage students to handle their own issues before coming to you for assistance. Intervene only when absolutely necessary.
- k. At the end of the group work, call on a few students to share a summary of their conclusion and experiences working in the groups. Address any misconceptions and clarify any confusing points. Allow students' questions, comments and contributions (Centre for Teaching Innovation, 2022).

### **Implication of the Teacher's Knowledge of Group Dynamics for Collaborative Learning**

Collaborative learning focuses on the learner's active participation and interaction with other learners and the learning environment. As a technique to using constructivism in the learning situation it focuses on the learner constructing his own learning while working with his fellow learners. The teacher does not have a very active role to play in the actual classroom instruction and learning. His role is that of a facilitator of learning who intervenes when it is absolutely necessary. However, the teacher has a huge role to play in collaborative learning. Collaborative learning has working in small groups as its mode of learning to enable the students interact with one another. The teacher has a lot to do in ensuring that the students work in small groups and that these groups are effective.

The teacher's knowledge of Group Dynamics is important for the use of collaborative learning in the classroom because it enlightens him on the workings of a small group. This is important because

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collaborative learning deals with people learning in small groups, which is also the concern of group dynamics.

a. **Leadership:** Leadership plays an important part in collaboration. Collaboration occurs because members of the group work together to achieve a common educational goal. For collaboration to occur there has to be an effective leadership. Leadership is known to affect group behaviour by influencing innovation and helping to generate resourceful ideas. The capacity and ability of a resourceful leader can make a group that does not have enough motivation become engaged in creative activities, just as an unimaginative leader can kill the progress and creativity of his group. Thus, the classroom teacher needs to know his own strength and how he can affect the working of his collaborative groups positively or negatively (Peralta et al, 2021).

b. **Group Size:** The knowledge of group dynamics is important because it informs the teacher on the number of people to allow to work as a group in order for the collaborative lesson to be effective. The size of students is one of the major factors that affect collaborative learning (Johnson and Johnson, 1986; Totten et al, 1991). This is because if the size is too big then every member of the group cannot contribute effectively. A too large group is also likely to have a lot 'free loaders'. Free loaders are people in a group who do not contribute anything to the achievement of the group (Sansivero, 2016). A collaborative learning group should not be more than 15 at any particular time (Andersen and Taylor, 2010) In most cases the number of people in a small group should be between 3 and 8 (Slavin, 2000). This is necessary if the teacher wants members to interact properly in group activities. Modern designs of instruction and instructional packages emphasise small group so most recent innovative techniques in classrooms, like collaborative learning are based on small group teaching and learning (Penuel, 2007).

c. **Group Composition:** Group composition is one of the factors that affect the effectiveness of collaborative learning. The composition of collaborative groups is very important because the purpose of collaborative learning is for people to generate knowledge and to help each other learn. To be able to do this effectively it is necessary that the group be made up of people of various performing levels and interest groups. The teacher's knowledge of group dynamics would make him include the right people in the collaborative groups (Pham & Gillies, 2010; Gokhale, 1995; Kirshner, 2001).

d. **Time:** The teacher's knowledge of group dynamics would enable him give the right amount of time for collaborative groups to do their work. If an individual is carrying out a project by himself he does not have to consider the interest of any other person besides himself. This is not the case when working in a group like with collaborative learning groups. Collaborative learning groups have from between 3 to 15 persons (Heinich et al, 2002). These persons represent various performance and ability levels, social, ethnic and religious groups so there are bound to be conflicts. The teacher's knowledge of group dynamics will inform him that these individuals would have to resolve their issues before they work together as a group so the need a little more time than an individual carrying out the same project or assignment on his own (Centre for Teaching Innovation, 2022).

e. **Interaction:** The purpose of collaboration in learning is to enable members of the group to interact with each other to learn an academic content and achieve results. Interaction of team members is important. According to Wang (2018) the more effective the interaction of a group the better the performance and outcome of their interaction. In collaborative learning the teacher does not function as the reservoir of knowledge as in convention teaching. He serves as the facilitator of learning, and initiating various patterns of interaction is one of the things he can do to ensure positive group dynamics. It is the work of the teacher as team leader to enhance a collaborative class environment where every learner can willingly contribute and participate effectively (Oyefusi, 2022).



f. **Teacher's Intervention:** It is necessary for the teacher to intervene in group activities from time to time to ensure that the groups work smoothly. The level of intervention and frequency can determine if it is effective or not. In group instruction, the teacher does not belong to any one group. He is expected to walk around to see how the groups are performing. In doing this he is likely to come across groups whose members are clashing and have arguments over the given task. It is the duty of the teacher to ensure that his class is not in chaos. The knowledge of group dynamics tell the teacher, however, that when groups begin to work together this stage which in group formation is called 'storming' is very likely to occur. The group has to successfully go through this phase before they work effectively as a group (Tuckman, 1965). Also, the knowledge of group dynamics informs the teacher to let groups resolve their own issues and only intervene when it is absolutely necessary (Centre for Teaching Innovation, 2022). So, the teacher will knowledge of group dynamics will know what to do and not intervene at any sign of disagreement (Peralta et al, 2021).

g. **Group Management:** When a group does not function properly together there is likely to be very little work that can be done in order to achieve desired objectives. There is likely to be a lot of distrust and confrontation (Awotua-Efebo, 1999; Macionis and Gerber, 2011). This knowledge is important to the teacher to maintain discipline in classroom situation that make use of collaborative learning. To prevent feuding and disruptive learners from disturbing activities the teacher can draw on his knowledge of dealing with unequal participation of groups members by intervening by assigning and rotating groups around the group. This will check the disruption of domineering or overbearing members especially group leaders.

h. **Reward:** Reward is very important in collaborative learning. This is the incentive for the collaboration of the members (Serrano and Pons, 2007). There is likely to be very little work done if there is no reward for working as a group. The knowledge of group dynamics enlightens the teacher on this aspect of working with groups. In managing groups the group members are meant to assess the quality and quantity of work done by each member of the group. While commending the students for working together and achieving their objectives as a group and awarding group praise and grades, the value of individual reward is exposed.

## Conclusion

Collaborative learning focuses primarily on the learner constructing knowledge, interacting with his environment and sharing this knowledge with his peers in the learning situation. It is an opportunity for the learner to be actively involved in the instructional process, and collaborate and cooperate with other learners. The teacher is not actively involved in the actual classroom instruction. He is a facilitator of learning who is supposed to quietly oversee things while working around the classroom. However, the teacher has a lot to contribute to this instructional technique. One of the ways he does it is by having a good knowledge of group dynamic.

## References

1. Amsel, Langer & Loutzenhiser (1991). Do lawyers reason differently from psychologists? A comparative design for studying expertise. In. R.J. Sternberg and P.A. Frensch (ed) *Complex problem-solving: Principles and mechanisms* p. 223-250. Lawrence Erlbaum Associates.
2. Andersen, M.L. and Taylor, H.F. (2008). *Sociology: Understanding a diverse society* (4<sup>th</sup> ed). Thomson Woodsworth.
3. Andersen, M.L. and Taylor, H.F. (2010). *Sociology: The Essentials*. Cengage Learning. P.129.
4. Appelbaum, R.P.; Carr, D.; Duneir, M. & Giddens, A. (2009). *Conformity, Deviance and Crime*. 'Introduction to Sociology. W. W. Norton. p.137.
5. Awotua-Efebo, E.B. (1999). *Effective Teaching: Principles and practice*. Paragraphics.

6. Brown, E. (2017). Advantages of collaborative learning. <http://www.eztalks.com>
7. Centre for Teaching Innovation (2022). Collaborative Learning: Group Work. <http://ctc.cornell.edu>.
8. Chand, S. (2022). *Group Dynamics: its characteristics, stages, types and other details*. <https://www.yourarticlelibrary.com>
9. Dillenbourg, P. & Tchounikine, P. (2007). Flexibility in macro-scripts for computer-supported collaboration learning. *Journal of Computer Assisted Learning* 23(1): 1-13. doi:10.1111/j.1365-2729.2007.0019.x
10. Gagne, R.M & Briggs, R. (1989). *Principles of Instructional Design*. Rine Hart and Winston.
11. GDRC (2022). 44 benefits of collaborative learning. <https://www.gdrc.com.c.learning>
12. Gencer, H. (2019). Group dynamics and behaviour. *Universal Journal of Educational Research*. 7(1): 223-229. 2019. DOI:10.13189/ujer.2019.070128.
13. Gillies, R.M. & Ashman, A.F. (2003). *Co-operative Learning: The Social and Intellectual Outcome of Learning in Groups*. Routledge Falmer.
14. Gokhale, A.A. (1995). Collaborative Learning Enhances Critical Thinking. *Journal of Technology Education*. 7(1), Fall 1995. P.22-30.
15. Heinich, R.; Molenda, M.; Russell, J.D. & Smaldino, S.E. (2002) *Instructional Media and Technologies of Learning* (7<sup>th</sup> ed). Prentice Hall.
16. Herrity, J. (2022). 11 benefits of collaborative learning and tips to use it. Indeed. <https://indeed.com>benefits>.
17. Johnson, R.T. & Johnson, D.W. (1986). Action research: Co-operative learning in the science classroom. *Science and Children*, 24, 31-32.
18. Kirshner, P.; Sweller, J. & Clark, R.E (2006). An Analysis of the failure of Constructivists, Discovery, Problem-Based, Experimental and Inquiry-Based Teaching. *Educational Psychologist*. 4(2) 75-86.
19. Kollar, I.; Fischer, F. & Hesse, F. (2006). Collaborative scripts: A conceptual analysis. *Educational Psychology Review*. 18(12): 159-185. doi:10.1007/s10648-006-900-2
20. Knowledge Hub (2022). What is collaborative learning. Valamis. <https://www.valamis.com>
21. Kretchmar, J. (2019). Constructivism. Salem press encyclopaedia. EBSCO.
22. Macionis, and Gerber (2011). *Sociology* (7<sup>th</sup> ed). Pearson.
23. Manilla, B.B. (2005). *History of world education*. Nissi
24. McMillan, A. (2022). Group dynamics. Reference for Business. <https://www.referenceforbusiness.com>
25. Mercadal, T. (2018). Social Constructivism. Salem press encyclopaedia.
26. Middlecamp, C. (2022). Teaching series: Disadvantages of collaborative learning. <https://achive.wceru.org>
27. Mind Tools Content Team (2022). Improving group dynamics – helping your team work more effectively. Mind Tools. <https://www.mindtools.com>
28. Okoroma, F.N. (2013). Impact of Peer Tutoring on Librarians in training at the University of Ibadan, Nigeria. *Educational Research and Review*. 8(21), p. 2059-2070, 10 November, 2013.

29. Omieibi-Davids, I. (2017). Skills in effective teaching. Noni.
30. Omieibi-Davids, I. (2021). Educational technology for trainee teachers. Noni.
31. Oise-Oghaede, R. (2022). Truth about religious intolerance in Nigeria The Guardian. 31 May, 2022.
32. Oyefusi, F. (2022). Team and group dynamics in organisations: Effect on productivity and performance. Journal of Human Resources and Sustainability. 10(1).
33. Pauli, R.; Mohiyeddini, C.; Bray, D.; Michie, F. & Street, B. (2008). Individual differences in negative group work experiences in collaborative student learning.
34. Pennel, W.R.; Boscandin, C.K.; Masyn, K. & Crawford, V.M. (2007). Teaching with students response system in elementary and secondary education: a survey research. ETR&D 55(4), August, 2007. p.315-345.
35. Peraltaa, A.J.; Kert'esza, J. & ñniguez, G. (2022). Opinion dynamics in social networks: From models to data. *Handbook of Computational Social Science 11*. European Association of Methodology Series.
36. Robert-Okah, J. (2003). *History of Nigerian and western education for colleges and university students*. Harey.
37. Sansivero, G. (2016). Challenges and Advantages of Collaboration Learning: *Workforce readiness in students*. www.seenmagazin.us
38. Scully, D. (2020). The 5 stages of team development. Teamwork. <https://teamwork.com>.
39. Serrano, J.M. & Pons, R.M. (2007) Co-operative Learning: we can do it without task structure. *Intellectual Educ.* 2007; 18: 215-230.
40. Shaefer, R.T. (2002). *Sociology* (5<sup>th</sup> ed). McGraw Hill.
41. Sidorenkov, A.V.; Borokhovski, E.F. & Kovalenko, V.P. (2018). Group size and composition of work group as precursors of intragroup conflicts. *Psychology Research and Behaviour Management*. 11: 511-523.
42. Slavin, R.E. (1995) *Co-operative Learning: Theory, Research and Practice*. Allyn Bacon.
43. Slavin, R.E (2000). *Educational Psychology*. Allyn Bacon.
44. Smith, B.L & MacGregor, J. (1992). What is Collaborative Learning? Pennsylvania State University: National Centre on Postsecondary Teaching, Learning and Assessment
45. Sturdivant, S. (2022). Peer Tutoring: Definition, pros and cons. Study.com. <https://study.com>
46. Sulaiman, K.O. (2016). Religious violence in contemporary Nigeria: Implications and option for peace and stability order. *Journal for the Study of Religion* 29(1). 85-103. <http://www.scielo.org.za>.
47. The Upwork Team (2021). The 5 stages of team development (including examples). Upwork. <https://upwork.com>.
48. Thirteen (2004). Co-operative and Collaborative learning. <https://www.thirteen.org>
49. Totten, S.; Sills, T.; Digby, A. & Russ, P. (1991). *Co-operation Learning: A guide to research*. Garland.
50. Tuckman, B. (1965). Developmental sequence in small groups. *Psychological bulletin*, 63. P. 384-399.
51. UNESCO (2004). *Education For All: The Quality Question*. UNESCO.
52. UNESCO (2015). *World Education Forum 2015 Final Report*. UNESCO.

53. Van-Boxtel, C.; Van Der Linden, J. & Kanselar, G. (2000). Collaborative learning tasks and the elaboration of conceptual knowledge. *Learn Instr.* 2000; 10. 311-330.
54. Volet, S.C.; Summers, M. & Thinkman, J. (2009). High-level co-regulation in collaborative learning: how does it emerge and how is it sustained. *Learn Instr.* 2009; 19: 128-143.
55. West Chester University (2022). Tuckman's stages of group development. <https://wcupa.edu>
56. Weimer, M. (2013). What group dynamics can teach us about classroom learning. Faculty Focus. <https://www.facultyfocus.com>