




**Bekithemba Dube**<sup>1</sup>   
**Jeannet M. Molopyane**<sup>2</sup>   
**Dina M. Mashiyane**<sup>3</sup> 

### AFFILIATIONS

<sup>1</sup> Central University of Technology, South Africa

<sup>2</sup> University of the Free State, South Africa

<sup>3</sup> North-West University

### Copyright:

© The Author(s) 2024.

Published by ERRCD Forum.

This is an open access book distributed under Creative Commons Attribution (CC BY 4.0) licence.

### REFERENCE

Dube, B., Molopyane, J. M. & Mashiyane, D. M. (2024). Cooperative Teaching and Learning in Classrooms. In E. O. Adu, B. I. Omodan, C. T. Tsotetsi, & B. Damoah (Eds.), *Pedagogical strategies for 21st-century classrooms* (pp. 9-14). ERRCD Forum. <https://doi.org/10.38140/obp1-2024-02>

## 2.1. Learning Outcomes

By the end of this chapter, you should be able to;

- Define cooperative teaching and learning.
- Identify the advantages and disadvantages of cooperative teaching and learning.
- Describe the dos and don'ts in cooperative teaching and learning.
- Discuss various case studies related to cooperative teaching and learning.

## 2.2. Introduction to Cooperative Teaching and Learning

In this section, we introduce cooperative teaching and learning. For effective learning to occur, cooperative teaching is essential, as it involves various educational stakeholders working together to achieve the best outcomes in teaching and learning. It acknowledges that an individual cannot effectively engage in learning and teaching alone; rather, stakeholders such as peers, parents, and teachers play significant roles. A pre-service teacher must understand that collaboration with various educational stakeholders is crucial for the academic performance and well-being of any society. In this chapter, we will guide you on how to manage a cooperative teaching and learning environment. We will also discuss the advantages and disadvantages of cooperative teaching and learning. Let us begin by helping you understand what cooperative teaching entails within the classroom.

## 2.3. Cooperative Teaching and Learning in Classrooms

Cooperative teaching and learning is defined by Birgili, Kiziltepe, and Seggie (2016) as involving collaboration with learners to achieve a particular purpose. It is further noted that cooperative teaching plays a significant role in a child's development, which includes fostering learning motivation. Additionally, it is stated that cooperative teaching aligns well with instructional theory. According to Birgili, Kiziltepe, and Seggie (2016), the Turkish government employs this approach due to the crowded nature of their classrooms. Fallah, Hafezi, Makvandi, and Bavi (2022) applied the cooperative teaching method while exploring creativity in students' learning, specifically in a flipped classroom setting. In this context, arranged resources, internet blogs, films, concepts, and virtual groups were utilised. To implement this cooperative teaching model, teachers involved in the project were provided with information on the most effective ways to apply it. Demonstration and role play were conducted

by the teachers to guide learners in identifying solutions to problems. Throughout this process, learners changed roles to ensure that everyone had a shared experience of cooperative learning

#### **2.4. Advantages of Cooperative Teaching and Learning**

- Assists learners with self-esteem by addressing difficult schoolwork as an aspect of learner subjective well-being in the quest for self-fulfilment (Holopainen, Waltzer, Hoang, Lappalainen, Nuutinen, and Pesonen 2023:1).
- It can be used as a framework for developing teacher programmes, improving content knowledge, pedagogical skills, and professional competencies (Fernandez-Rio, Rivera-Perez, & Iglesias, 2022:119).
- Cooperative teaching promotes an interdisciplinary approach that enables learners to effectively and efficiently tackle real-life problems.
- It allows learners to collaborate with educational stakeholders to address challenges in teaching and learning.
- Cooperative learning fosters creativity, flexibility, motivation, and change, resulting in academic growth among learners.
- One added advantage of cooperative learning is that it assists learners with interpersonal relations, as they must be sensitive to the needs of others (Gillies, 2016:178).

Despite the positives associated with cooperative teaching and learning, there are also disadvantages that you need to be aware of.

- a. A lack of strict discipline can lead to chaos in the classroom.
- b. Conflict between individuals can arise.
- c. Uneven distribution of workload can occur.
- d. Some learners might loaf around.
- e. Everyone might get blamed for a mistake.
- f. Different learners learn at different paces.
- g. Other learners might try to become leaders.
- h. Plenty of time could be wasted (Suyunova, 2023).

#### **2.5. Preparing a Cooperative Classroom**

For cooperative teaching and learning to be effective, preparation is essential. As a teacher, you have a responsibility to ensure proper planning that allows learners to benefit from cooperative teaching and learning. Central to this approach is the creation of a caring and safe atmosphere that characterises the learning environment. Learners are more likely to succeed academically when they feel safe within their learning environment; therefore, you should prepare your classroom for cooperative teaching and learning in a way that fosters this sense of safety. A well-prepared cooperative teaching and learning environment will assist in classroom management, promote learner discipline, and create a sense of belonging.

#### **2.7. Techniques in effective Cooperative classrooms**

Various techniques can be implemented to enhance cooperative teaching in the classroom. These techniques can include both traditional and technologically enabled practices, depending on the available resources and facilities, especially when embedding technology. Class size and learner demographics, such as age, learning needs, outcomes, and objectives, must also be considered. It is imperative to consistently ascertain that the integration of technology into educational settings yields advantageous outcomes for learning without compromising or impeding the cooperation process.

**Table 2.1: Cooperative classroom techniques**

Technique	Description	Advantage	Disadvantage	Founder
Jigsaw	Learners form smaller groups, with the goal of each member becoming an “expert” on a particular topic. In the end, one learner from each group of experts explains what they have learned to the class.	<ul style="list-style-type: none"> <li>• Promotes teamwork.</li> <li>• Enhances communication skills.</li> <li>• Enhances skills in working with diverse teams/ members</li> </ul>	<ul style="list-style-type: none"> <li>• Cause Conflict</li> <li>• Dependency of other team members</li> </ul>	Elliot Aronson (1971).
Carousel	Learners are divided into small groups and rotate through “stations” Each station covers a specific topic or activity.	<ul style="list-style-type: none"> <li>• Promotes active learning.</li> <li>• Enhances critical thinking.</li> <li>• Encourages engagement.</li> </ul>	<ul style="list-style-type: none"> <li>• Time-consuming</li> <li>• Unequal participation</li> </ul>	Unknown (originated in the 1970s).
Round Robin	This technique involves learners equally taking turns in a predefined order to participate on discussions and answering questions.	<ul style="list-style-type: none"> <li>• Equal participation</li> <li>• Promotes creativity.</li> <li>• Easy to implement</li> </ul>	<ul style="list-style-type: none"> <li>• May cause anxiety.</li> <li>• Not ideal for learners with a fear of public speaking (introverts)</li> <li>• Time-consuming</li> </ul>	Kagan, S.
Think-pair-share	Learners first think about an issue or topic on their own (Think), then discuss it with another person (Pair), and then express their thoughts with a group (Share) (Lyman, 2022).	<ul style="list-style-type: none"> <li>• Provides opportunities for reflection.</li> <li>• Reduces participation anxiety</li> </ul>	<ul style="list-style-type: none"> <li>• Time-consuming</li> <li>• Needs excessive monitoring</li> </ul>	Frank T. Lyman (1981).
Team pair-solo	This technique allows learners to be grouped in teams, then as pairs and later individually to work on solving problems of a similar nature.	<ul style="list-style-type: none"> <li>• Enhances self-motivation.</li> <li>• Boosts active learning.</li> <li>• Enhances problem-solving skills</li> </ul>	<ul style="list-style-type: none"> <li>• Time consuming</li> <li>• Unequal participation, particularly in the group (team) phase</li> </ul>	Kagan, S (1989).

## 2.8. Dos and don'ts in Cooperative teaching and learning

Implementing cooperative teaching, with careful consideration and attention to learners’ needs and classroom dynamics, can yield significant effectiveness. Adhering to recommended practices and avoiding discouraged actions can lead to heightened engagement and increased productivity within the learning environment.

Below are the do's and don'ts to consider when implementing cooperative teaching and learning.

**Table 2.2: Dos and Don'ts of cooperative teaching and learning (citations)**

Do's of cooperative teaching and learning	Don'ts of cooperative teaching and learning
Clarify goals and objectives for the activities. <ul style="list-style-type: none"> <li>Learners should have a clear understanding of what's expected of them and how their performance will be assessed.</li> </ul>	Total reliance on cooperative teaching <ul style="list-style-type: none"> <li>Avoid over-reliance on cooperative teaching. Integrate alternative teaching approaches that are in line with the learning outcomes.</li> </ul>
Ensure diversity when assigning groups or teams. <ul style="list-style-type: none"> <li>Group learners with various skills, backgrounds, and knowledge together to enhance innovation and creativity (varying ideas)</li> </ul>	Provide individual credit. <ul style="list-style-type: none"> <li>The success of a group is a result of a combined effort of all members. Giving credit to individual learners may adversely affect the self-esteem of others.</li> </ul>
Provide a safe and conducive environment. <ul style="list-style-type: none"> <li>The classroom atmosphere should be a safe space and conducive for learners to share ideas freely.</li> </ul>	Avoid competitiveness. <ul style="list-style-type: none"> <li>Groups should cooperate for the sake of learning rather than competing with one another. This can have an impact on morale and motivation.</li> </ul>
Provide opportunities for reflection. <ul style="list-style-type: none"> <li>After cooperative teaching has taken place, learners should have the opportunity to engage in and reflect on the activities. This will assist in identifying the strengths, weaknesses, opportunities, and threats of the cooperative techniques implemented.</li> </ul>	Refrain from micromanaging the groups. <ul style="list-style-type: none"> <li>Teachers should enable groups to work individually without constant supervision and meddling.</li> </ul>
Mediate conflict <ul style="list-style-type: none"> <li>Conflict may emerge during cooperative learning, and teachers should act as mediators while also providing resolutions.</li> </ul>	Limit feedback <ul style="list-style-type: none"> <li>Feedback is an important aspect of learning. Create an environment where learners may take input from peers and teachers.</li> </ul>

## 2.9. Case Studies in Cooperative Teaching and Learning

The case studies below reflect the successes of using cooperative teaching and learning techniques in the classroom. They also demonstrate the applicability of these techniques in various settings and contexts.

### Case study 2.1: Unleashing the power of cooperation: Science teaching and learning at Makubu Primary School

The low science pass rate at Makubu Primary School served as motivation to seek ways to enhance its science education programme and teaching practices. Two teachers, Mr. Nokwane and Mrs. Williams, aimed to implement cooperative teaching to improve engagement and foster a positive learning environment. The two teachers collaborated with Ms. Martinez to design science lessons that incorporated hands-on activities and group projects. Learners were asked to collect old cans and plastic bags for a group experimental project, allowing each group the opportunity to evaluate another group's project and provide suggestions and recommendations. They employed cooperative learning strategies such as Jigsaw, Carousel, and Round Robin to encourage learners to cooperate and share their knowledge. These cooperative teaching techniques yielded positive results. Learners demonstrated increased enthusiasm for science class, improved critical thinking skills, and better communication with their peers. Additionally, the teachers noticed decreased disruptive behaviour and increased classroom participation.

Now, try to answer the following question based on case study 2.1.

- What specific aspects of Jigsaw and carousel techniques do you think were most effective in enhancing engagement and learning outcomes?
- Implemented techniques in the case study reduced disruptive behaviour in the classroom; what could be causing these behavioural changes?

### Case Study 2.2: Breaking barriers: embracing inclusion in high school Mathematics

St Stevens Special School has learners from various backgrounds with differing teaching and learning needs. Individualised attention has been practised to ensure that each learner has an equal opportunity to enhance academic success. However, the teachers observed that this approach created a barrier to peer learning and efficacy, especially in mathematics classes. To create a cooperative environment, two teachers, Mrs. Van Tonder (a mathematics teacher) and Ms. Vilakazi (an experienced special needs teacher), worked together to enhance cooperative teaching, allowing learners to learn from one another. The teachers collaborated in teaching and designing lessons, incorporating their expertise to provide differentiated instruction. They divided the learners into heterogeneous groups, where those with strong mathematics skills could support and guide those who needed extra help. Assistive technologies were also utilised, and practical activities were implemented. The teachers incorporated gamification, escape rooms, and puzzles as additional fun elements to enhance content comprehension and engagement. This approach led to remarkable improvements for the learners. The learners were also involved in the design of gamified activities. Those who struggled with mathematics gained confidence and skills with the support of their peers and teachers. High-achieving learners benefited from reinforcing their knowledge by explaining concepts to others. The overall pass rate increased, and learners reported feeling more supported and valued in the mathematics classroom.

- Which cooperative classroom technique was used in Case Study 2.2, and what disadvantages can you identify, especially given the special needs of the learners?

### Case Study 2.3: RoundRobin approach to success: English language acquisition for international exchange learners

With English as their second language, international exchange learners experience difficulties in adequately articulating and communicating. Every year, the University of Walters welcomes 200 Chinese undergraduate medical students who receive instruction in English. To address the issue of language barriers, the university offers an English learning course for international learners who speak English as a foreign language. The course facilitators, Prof. Jones and Dr. Engela, constantly implement new pedagogical strategies to improve English language acquisition. One of their most recent techniques featured a round-robin approach, in which learners in a class were expected to cooperate to create an imaginative story. Each learner would contribute a sentence or paragraph, which would be passed on to the next student in a predefined order. This technique was repeated until the story was completed. This practice enhanced their critical thinking, communication, listening, and creativity skills, helping students step outside their comfort zones. The students also reported decreased anxiety about speaking a foreign language due to the friendly and supportive group environment, which encouraged them to share their ideas openly. Because of the open and accommodating classroom environment, students were less worried about expressing themselves in a foreign language.

- In light of the positive results reported in the case study above, which other cooperative classroom techniques can achieve the same results?

It is worth mentioning that libraries play a crucial role in cooperative education, particularly through information literacy programmes. The lack of these skills calls for pedagogical consideration, advocating for a collaborative teaching approach combined with project-based learning. Inquiry-based learning is defined as a teaching methodology where learning occurs through inquiry as a form of active learning. A typical example of cooperative classroom practice is provided by Chu, Tse, and Chow (2011:132), where General Studies, Chinese, and IT teachers collaborated with the teacher librarian in a Hong Kong primary school to complete two inquiry-based learning tasks. In this cooperative and collaborative project, three classes were involved: Class A consisted of 37 learners, Class B had 35, Class C had 36, and Class D had a total of 35 learners, making the overall total 143. Learners were not separated according to academic performance. To determine the effectiveness of this cooperation, parents and teachers were interviewed. A self-administered questionnaire developed by the teachers was given to the learners to complete. After the project, they were asked to evaluate their information literacy and



IT skills before and after the intervention. A 5-point Likert scale was used, where 1 indicated not familiar and 5 indicated very familiar. The teachers rated the intervention at 4, parents at 3.7, and learners at 3.6 respectively (Chu, Tse & Chow, 2011). The approach in this study is supported by Barlow (2023); however, it is slanted towards distant reading when engaging in difficult schoolwork.

## 2.10. Conclusion

In this chapter, we introduced cooperative teaching and learning. We defined the concept and discussed its advantages and disadvantages. The dos and don'ts of cooperative teaching and learning were also highlighted. Additionally, we provided various case studies to enhance your understanding of the topic. As you conclude this chapter, please respond to the following questions.

Reflective answers. Add one more question to align with four learning outcomes.

What are the advantages and disadvantages of cooperative teaching and learning?

What are the dos and don'ts of cooperative teaching and learning?

How do you prepare your classroom for cooperative teaching and learning?

## References

- Barlow, A. (2023). Distant reading as library pedagogy: Lessons for the literary studies classroom. Rhode Island College.
- Birgili, B., Kiziltepe, Z., & Seggie, F. N. (2016). Teaching method preferences of teachers: The cooperative teaching method. *World Studies in Education*, 17(2), 37-52.
- Chu, S. K. W., Tse, S. K., & Chow, K. (2011). Using collaborative teaching and inquiry project-based learning to help primary school students develop information literacy and information skills. *Library & Information Science Research*, 33(2), 132–143.
- Fallah, T., Hafezi, F., Makvandi, B., & Bavi, S. (2022). The effectiveness of flipped classrooms and cooperative teaching methods on the creativity of students. *Interdisciplinary Journal of Virtual Learning in Medical Sciences*, 13(1), 34-42.
- Fernandez-Rio, J., Rivera-Perez, S., & Iglesias, D. (2022). Cooperative learning interventions and associated outcomes in future teachers: A systematic review: Cooperative learning interventions and associated outcomes in future teachers: A systematic review. *Journal of Psychodidactics (English ed.)*, 27 (2), 118-131.
- Gillies, R. M. (2016). Dialogic interactions in the cooperative classroom. *International Journal of Educational Research*, 76, 178–189.
- Holopainen, L., Waltzer, K., Hoang, N., Lappalainen, K., Nuutinen, H., & Pesonen, H. (2023). The role of educational support in the development of subjective well-being in Finnish general upper secondary education. *Psychology in the Schools*, 60(8), 2795-2808.
- Kagan, S. (1989). The structural approach to cooperative learning. *Educational Leadership*, 47(4), 12–15.
- Lyman, F. T. (1981). The responsive classroom discussion: The inclusion of all students. *Mainstreaming Digest*, 109(1), 113.
- Lyman Jr, F. T. (2022). 100 teaching ideas that transfer and transform learning: Expanding your repertoire. Routledge.
- Suyunova, M. (2023). Advantages and disadvantages of group work in a classroom situation. "Finland" *Modern Scientific Research: Topical Issues, Achievements and Innovations*, 14(1), 1-3.

**Disclaimer:** The views, perspectives, information, and data contained within all publications are exclusively those of the respective author(s) and contributor(s) and do not represent or reflect the positions of ERRCD Forum and/or its editor(s). ERRCD Forum and its editor(s) expressly disclaim responsibility for any damages to persons or property arising from any ideas, methods, instructions, or products referenced in the content.