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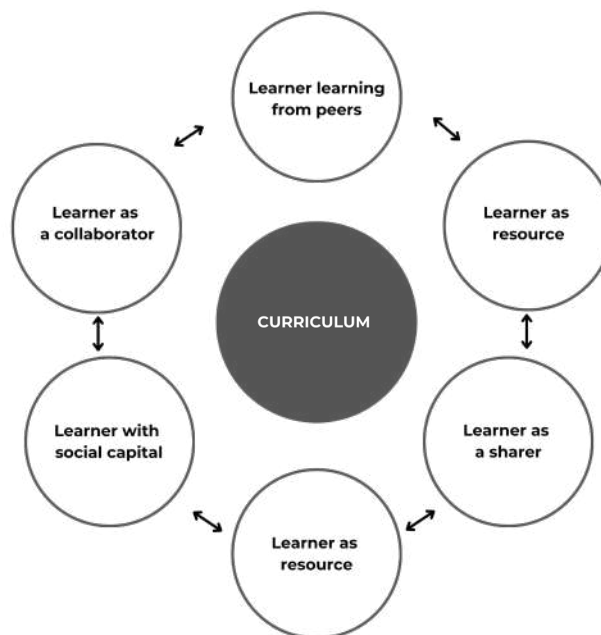
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11.1. Concept Map



11.2. Learning Outcomes

- After studying this chapter, you should be able to:
- Define the Collaborative Learning method of teaching and learning.
- Prepare a productive collaborative learning environment.
- Explain the benefits of collaborative learning.
- Employ effective techniques when applying the collaborative approach in the teaching and learning process.

11.3. Clarification of Key Term

Collaborative learning: In this instructional strategy, students in a team collaborate to resolve a dilemma, finish a project, or produce a final product (Paul & Kundu, 2021).

Community in teaching and learning: An attitude created in teaching and learning that promotes joint affiliation, cooperation, mutual dependence, and reliance on each other to attain common goals (Fisher & Fanyo, 2022)

Ubuntu Philosophy: The philosophy of togetherness that equips teachers with skills and attitudes that could empower them to deal with classroom challenges and produce citizens who would be able to solve societal problems (Sotuku & Duku, 2014).

Social capital: Value derived from positive relationships, social networks, shared purpose, culture, and attitudes (Daghar et al., 2021).

11.4. Introduction to Collaborative Learning

As a teaching strategy, collaborative learning involves groups of two or more learners working together to resolve issues, complete tasks, or comprehend new ideas. Rather than relying on rote memorisation of facts and statistics, this approach actively engages learners in the processing and synthesis of concepts. It is based on Vygotsky's (1920) philosophical idea of the Zone of Proximal Development, wherein learners collaborate to perform activities that they would otherwise be unable to do independently (Schneuwly & Leopoldoff Martin, 2022). The drive in education towards greater enthusiasm and engaged learners is reflected in the emergence of active learning classrooms. Active learning, or collaborative learning, results from a teacher's deliberate and focused effort to promote learner participation in a lesson. Collaborative learning is considered the most beneficial active learning strategy. Teachers often use collaborative learning to accelerate learners' understanding and enhance their performance. It improves learners' capacity for critical thought. Student participation and interaction in a group setting, relationship management, and content development are all aspects of collaborative learning (Qureshi et al., 2023). A rich cooperative environment has been suggested to enhance learners' metacognition, social relationships, and cognitive performance. In an interactive learning environment, learners function as resources for one another by talking to each other, observing the work of others, sharing ideas, and making collective decisions (Ibid).

This chapter covers the use of collaborative learning as a teaching and learning approach in the classroom. It argues for the relevance and applicability of collaborative learning as a teaching strategy. Collaborative learning is an approach that enhances collaboration, communality, and togetherness. It is therefore based on the founding principles of Ubuntu, which promote interdependence among learners (Sotuku & Duku, 2014). It is one of the most frequently recognised teaching approaches, as it fosters learner-centredness in the classroom. In this approach, a teacher serves as a facilitator of learners' learning, allowing learners the opportunity to lead their own learning (Keiler, 2018). The days when teachers were seen as imposers of knowledge on learners are gone; contemporary teaching and learning require that learners work collaboratively to discover knowledge independently. This chapter therefore discusses the collaborative learning approach, with specific emphasis on preparing a productive collaborative learning environment, techniques teachers should use for effective collaborative learning, and the advantages and disadvantages of collaborative learning. It will also elaborate on the dos and don'ts of collaborative learning, equipping student-teachers and in-service teachers with the necessary knowledge and skills to apply collaborative learning in their classrooms. Two case studies are used to illuminate the relevance and importance of collaborative learning.

11.5 Case studies in Collaborative learning

The case studies below demonstrate the dynamics in the collaborative classroom and how collaborative learning can be beneficial to teachers and students.

Case Study 1 on Collaborative Learning

In one of the provinces of Uganda, Bhungane High School is located in the affluent town of Loxton. Its students, who come from working-class and middle-class families, are relatively diverse. The diversity of the student population in terms of ethnicity, race, and culture adds to this richness. Therefore, on days designated as Cultural Days, the school is a vibrant display of colours. Learners proudly showcase their cultural heritage by dressing appropriately and bringing traditional dishes to class on these special days.

One of the more seasoned teachers, Mr. Brand, originally from the United Kingdom and in his mid-fifties, has been teaching Life Orientation for the past five years. On this particular day, he assigned the Grade 9 learners a group

project that required them to learn about the eradication and management of reptiles, particularly snakes, in the community. He thoroughly explained the goals of the exercise, the roles of individual learners within the groups, and the expectations for their presentations. More importantly, he emphasised the learners' crucial role in collecting and understanding the information and sharing it with other teams.

On the day of the presentations, the teams provided their findings along with explanations of their approaches, which appeared to be underpinned by research. The learners debated and identified four different tactics. While each group focused on one strategy, it became evident during their presentations that more than one strategy was discussed, with the groups having to agree on just one to present in class. It was also clear that significant development and learning occurred within those small research groups. One group spoke of using fire to capture the snake, which would then be killed by its deadly bite. Another group mentioned that they had interacted with Snake Catchers and visited the local snake park. They even claimed to know the phone numbers of the Snake Catchers, believing that every time they encountered a snake, they could call for assistance in removing it. The third group noted that some snakes held spiritual significance and were connected to their totems. Depending on the type of snake, individuals might feel pleased to find a totem and celebrate it if it aligned with their spiritual beliefs. The final group discussed the biblical parable of the snake and its antagonistic relationship with humans, concluding that they would kill the snake as it is perceived to be dangerous to people.

After the presentations, learners reflected on the new knowledge they had gained that day. Mr. Brand also acknowledged that he had learned new ideas and strategies from the groups. In conclusion, Mr. Brand encouraged learners to utilise their social capital, continue learning from one another, and respect each other's social backgrounds and cultures.

Activity:

- i. From the case study, what is your understanding of collaborative learning?
- ii. What are the benefits of collaborative learning?
- iii. Would you say Ubuntu principles are at play in the above case study? If so, how so?
- iv. How would you describe Mr Brant's role?

Case study 2

At Ndabezitha Senior Secondary School, Mr Lukho teaches history to Grade 11 learners. He appears to enjoy engaging with students and is very passionate about his work. His school is frequently praised for its success in History. In the same school district, I also teach history at Zeli Secondary School. We had a conversation when I met him one day in the district office. When I asked him which teaching method he preferred, he identified involving learners in collaborative learning. We continued our discussion until we reached a shared understanding of collaboration, which included visiting one another during history classes.

The following week, I paid him a two-day visit during his history lessons at his school. He engaged learners in group discussions, with five students in each group. First, he ensured that everyone comprehended the lesson. Different assignments were provided to each group, and they had two days to submit them. Each group member was given a specific task to focus on, which they were responsible for delivering to the other group members before presenting to the entire class. Each group member was required to have one question ready for each presenter. This compelled all group members to read and prepare thoroughly.

During the plenary sessions, all group members participated by presenting their assignments to the whole class. This led to a class discussion in which all the learners contributed. The groups took turns making presentations, and during each presentation, all group members had specific roles. After the presentations, the entire class engaged in the discussion.

Activity:

- i. Would you recommend the teaching approach Mr Lukho used in his history lesson? Why?
- ii. What do you think are the benefits of this teaching approach?
- iii. What values do you think this approach inculcates to the learners?
- iv. Would you try collaborative teaching as suggested in this case study?

11.6 Theories Guiding Collaborative Learning

A multitude of theories inform collaborative learning. Yet, when it comes to implementing collaborative learning in the classroom, four theories, Ubuntu theory, achievement goal theory, cognitive theory and sociocultural theory, occupy the forefront.

11.6.1 Ubuntu theory and collaborative learning

There are three categories into which Ubuntu theory falls. These are acknowledging others, being open and connected, and being human. Because of their interconnectedness, humans are free to share and should demonstrate a willingness to do so. Second, Ubuntu's notion is based on the strong pillars of generosity, hospitality, care, and compassion, all of which can increase human connectivity (Waghid, 2020). According to the third classification, a person who practises Ubuntu needs to be open, acknowledge others, and interact with them. When used in a collaborative learning environment, Ubuntu can create learners who recognise the advantages of cooperating to accomplish a common objective.

11.6.2 Applying Achievement Goal Theory in Collaborative Learning

Achievement Goal Theory is a guide for interpreting, understanding and responding to events (Hmelo-Silver & Chinn, 2015). When Achievement Goal Theory is considered in a collaborative classroom, learners are encouraged to work together and engage in achievement behaviour. This theory is relevant to applying collaborative learning as it provides a framework that helps learners develop a shared sense of task mastery and achievement. Achievement Goal Theory fosters learners who are goal-oriented and focused on a common objective.

11.6.3 Cognitive theory its relevance to collaborative learning

Cognitive theory is relevant for cooperative learning in that individuals' cognitive processes change when they engage in behaviours that appear to come naturally in cooperative learning environments, such as explaining concepts or posing questions (Stahl, 2013; Fischer et al., 2023). Collaborative learning, therefore, enables individuals to progressively internalise cooperative behaviours as cognitive strategies and collaboration skills that can be applied in various contexts. However, to participate in advanced collaborative processes, learners must be mentored in collaborative learning.

11.6.4 Using Sociocultural theory in collaborative learning

Applying collaborative learning through the framework of sociocultural theory assists learners in developing their psychological strength. The goal of sociocultural theory is to elucidate the relationship between cultural, institutional, and historical contexts and individual mental functioning. Accordingly, the sociocultural perspective focuses on how involvement in social interactions and culturally structured activities impacts psychological development.

11.7 Collaborative Learning in Classrooms

The focus in a collaborative classroom is on sharing information. Teachers continue to possess the appropriate subject matter expertise to convey it effectively to students (Darling-Hammond et al., 2020). However, there is tested evidence that equally important is a focus on fostering students' knowledge, experiences, and backgrounds, which are associated with learner achievement (Gamage et al., 2021). This perspective is linked to the democratic learning process known as Collaborative Learning (CL). Yang (2023) unpacks collaborative learning as an umbrella term for various instructional approaches to small group learning, including, but not limited to, cooperative learning, team-based learning, peer tutoring, study groups, project-based learning, problem-based learning, and learning communities. Learners are offered the opportunity to set their goals within the confines of what they are being taught using collaborative learning. Consequently, learners are empowered to utilise shared power for their learning and decision-making. This enables them to propose tasks or activities that reflect their interests and objectives while assessing their learning (Keiler, 2018). There is also a strong emphasis on appreciating and patiently listening to other people's viewpoints and claims rather than upholding a system of unequivocal reality and injustice.

The emphasis of collaborative learning lies in the processes through which learners negotiate knowledge and develop within a community of peers (Yang, 2023). Piaget believed that children construct knowledge as they develop and repeatedly interact with their physical, social, and intellectual surroundings (Stump et al., 2011). As learners develop and learn together, the process allows for and appreciates contributions from all, with every contribution working towards the achievement of the end goal (Ibid). It's crucial to understand that traditional "ability" segregation is deliberately opposed to collaborative learning, as every pupil deserves the chance to contribute and value the efforts of others. Accordingly, the very nature of collaboration means that everyone, regardless of presumed academic accomplishment, has much to learn from one another. Collaborative Learning, therefore, encourages learners of different abilities, social backgrounds, experiences, and knowledge to share their learning (Roldan et al., 2021). While learners in collaborative learning own and make decisions about their learning journey, the teacher's role remains key, increasingly functioning as a mediator rather than a dictator (Keiler, 2018). The mediator of learning includes the teacher's role as a promoter of activities that encourage participation and foster effective quality in interactions and social relationships (Liu & Gillies, 2021). In its capacity as a mediator, this role helps and encourages learners to relate new material to their personal experiences, offers assistance when a group encounters difficulties, and provides direction regarding how to acquire knowledge (Ibid).

11.8 Preparing a productive collaborative learning

This part covers the steps involved in creating a collaborative learning environment. A learner's ability to succeed or struggle may depend on the establishment of a secure and cooperative learning atmosphere in the classroom (Qureshi et al., 2023). Collaborative learning is a methodical strategy for promoting critical thinking and knowledge exchange among students. This approach is not only highly intriguing but also much easier to implement, thanks to the availability of reliable, portable technology for learning. Collaborative learning in the classroom marks a significant departure from the rote learning and narrowly prescribed solo activities typical of Victorian teaching. Instead, interacting with peers encourages learners to mentor one another and think critically about ideas (Yang, 2023). However, just because a teacher has assigned a group task does not guarantee a motivating outcome. It requires careful development and implementation. There are two critical steps involved in preparing a productive collaborative learning environment. These steps include designing an effective collaborative learning classroom and creating a safe and supportive learning atmosphere.

Flexibility is essential for effective teamwork. Working with others can necessitate a variety of resources, including access to information, privacy, and specialised equipment. However, static or formulaic classroom designs can hinder easy collaboration (Palmgren-Neuvonen et al., 2021). Such collaborative learning can be especially facilitated by the use of Information and Communication Technology (ICT) devices, which offer a wide range of flexible instructional applications. With the aid of technology, teachers can move among their students, projecting their displays while evaluating each student's performance. Every learner can access the necessary data on their own device from any location in the classroom. Feedback and conversation can occur naturally, as digital documents can be accessed, created, and annotated collectively (Nasir et al., 2021).

The process cannot occur in a single lesson or overnight, but a secure and collaborative classroom can be constantly cultivated and developed over time. Some learners feel immediately at ease participating in discussions and communicating with their peers, while others may require more time. The effort taken to overcome nervousness is well worth it once they feel comfortable engaging in class (Ibid). It is essential to ensure that learners understand the purpose and learning objectives of each project so that they feel safe and comfortable working together. To meet the diverse learning needs of students, it may be necessary to present these elements in various formats. This could involve distributing assignment guidelines verbally, in written form, and on a rubric during class time. When learners comprehend and consider the goals and purposes of activities, they may engage in their own unique ways (Curtis & Lawson, 2019).

Whether online or in-person, trust is one of the most crucial components in creating a positive environment. Learners are more eager to share knowledge and solutions when they have mutual trust. Collaborative teamwork will also enhance their level of engagement. Both the teacher and the learners must work together to build this trust. This involves eliminating assessment bias, valuing all comments, questions, and viewpoints, allowing learners to express their distinctive perspectives, and providing meaningful feedback that demonstrates concern for their academic success and personal well-being (Curtis & Lawson, 2019).

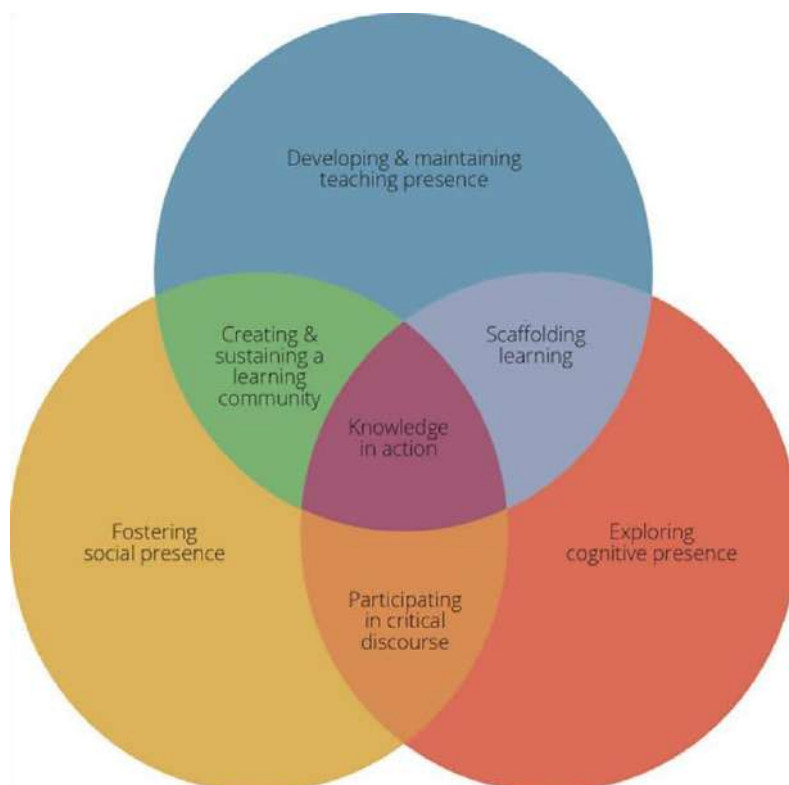
In a digital world, glitches are unavoidable. Few things are more annoying than having your Wi-Fi cut out in the middle of a lesson or group project. Hence, it is critical to approach the digital classroom with an understanding

of these challenges to prevent learners from experiencing additional stress due to circumstances beyond their control (Campo, 1993).

It is also important to acknowledge that learners have varying access to technology and workspaces. Early on, it is essential to address this in a supportive manner so that students understand that, rather than the brand of monitor or computer they are using, what matters most is the quality of their work and their participation in class (Dytham, 2017). For instance, some learners may struggle with intermittent connectivity, data availability, and appropriate ICT devices. Whatever the situation, these unique experiences offer a wonderful opportunity to incorporate a range of viewpoints into the course material.

Through digital learning, learners may often feel less connected to their peers and the course material, but there are solutions to address this. Early on, teachers should clearly communicate the level of participation and involvement they anticipate from their learners. In addition to outlining expectations, it is critical to discuss the value of involvement and engagement in activities in terms of improving conceptual understanding. Instead of focusing on the drawbacks of online education, consider the benefits of this virtual environment, such as establishing a skill set with virtual programmes and preparing learners for a workplace they may encounter in the future. Learning online offers learners autonomy and often brings together people from different parts of the world (Oliveira et al., 2019). Building trust in a secure and cooperative learning environment is made possible through the AI-driven Kritik platform's peer evaluation and peer learning features. To address these issues and assist in developing the essential soft skills and critical thinking abilities, Kritik employs features such as anonymous peer evaluation, team-based learning, and class debate (ibid).

Molina Roldán et al. (2021) developed a framework that identifies seven steps teachers must consider in designing an effective collaborative learning classroom. These steps are developing and maintaining teaching practice, creating and sustaining a learning community, scaffolding learning, knowledge in action, fostering social presence, exploring cognitive presence, and participating in critical discourse. Figure 2 below illustrates the framework as proposed by Molina Roldán et al. (2021).



Source: Redmond and Lock (2006)

11.9 The role of teacher/facilitator in the collaborative

The role of a teacher in facilitating collaborative learning in the classroom has not changed. In collaborative classrooms, teachers play a crucial role in ensuring that learners are meaningfully engaged in academic work and that lesson objectives are achieved through interactive participation.

Teachers, therefore, serve as task setters, classroom managers, group facilitators, and synthesizers.

The Teacher as Task Setter

How well the first activity that students must complete in groups is designed will determine the effectiveness of the collaborative model. For this reason, any observer must pay close attention to the teacher's position as the task-setter (Bower & Richards, 2006).

The Teacher as Classroom Manager

The teacher's role in classroom management is the second component of collaborative learning that assessors should consider. How does the teacher facilitate collaboration once the task is set? What social structure does the teacher create to enable learning? Are students able to form groups quickly and with ease? Are the chairs arranged in thoughtfully separated clusters to prevent group discussions from overpowering one another? Do group members demonstrate cooperation by allowing one person to speak at a time while the others listen? Are deadlines clear, typically met, yet accommodating? As the designated end point approaches, does the teacher check in with the groups to assess how much more time they might need, and does she/he encourage them to continue working on their tasks? If a reporter or recorder is needed—a member of each group who synthesises the discussion—are their roles evident? In a collaborative classroom, teachers must consider each of these questions (Bower & Richards, 2006).

The Teacher's Role During Group Work

It is imperative to scrutinise the behaviour of teachers during group work, which is the third component of collaborative learning. Teachers should be seen moving between groups to respond to questions, facilitate group discussions, guide responses, probe further, and maintain learners' attention on the topic at hand (Bower & Richards, 2006).

The Teacher as Synthesizer

The teacher's performance as a synthesiser following the conclusion of the group activity is the fourth facet of collaborative learning. After the groups have completed their work, it is crucial for the teacher to inform the class of the group's decision. Once this is done, the teacher must help the class sort through and make sense of the occasionally contradictory and conflicting opinions (Bower & Richards, 2006).

11.10 Benefits of collaborative learning

There are numerous benefits of collaborative learning, as suggested by Laal and Ghodsi (2012) and Yang (2023). These can be organised into social, psychological, academic and assessment benefits as follows:

i. Social benefits

- Helps to develop a social support system for learners;
- Leads to build diversity and tolerance among students and staff;
- Establishes a positive atmosphere for modelling and practising cooperation, and;
- Develop learning communities.

ii. Psychological benefits

- Student-centred instruction increases students' self-esteem;
- Cooperation reduces anxiety, and;
- CL develops positive attitudes towards teachers.

iii. Academic benefits

- Promotes critical thinking skills
- Involves students actively in the learning process
- Classroom results are improved
- Models appropriate student problem-solving techniques

iv. Assessment benefits

Collaborative learning:

- Large lectures can be personalised
- CL is especially helpful in motivating students in specific curriculum
- Alternate student and teacher assessment techniques;
- Collaborative teaching techniques utilise a variety of assessments.

In summary, collaborative learning helps learners develop critical thinking abilities, which are essential for success in the workplace and in life. The 'thinking curriculum' is said to incorporate the sharing of knowledge

(Laal & Ghodsi, 2012). This implies that it teaches students how to study independently and to think deeply and critically about ideas. When debate and discussion are included in the curriculum, students can analyse topics more thoroughly and see how they relate to other areas of study, thereby improving their problem-solving abilities. In a collaborative learning environment, learners are expected to take charge of their own education and work with their peers to resolve challenges. This shift away from passive knowledge consumption increases the need for collaborative problem-solving. As suggested by Chandra (2015), coming together is the beginning, and staying together is the goal.

11.11 Disadvantages of collaborative learning.

Despite the overwhelming body of research demonstrating its benefits as a social learning strategy, there are definite dangers and drawbacks to collaborative learning. In collaborative learning, for example, students might not engage in equitable participation as a community; instead, some might dominate the environment, potentially resulting in disputes (Forsell, Forslund & Hammar, 2020). Because of this, teachers must closely monitor the learning process. The ability for students to learn from one another is another advantage of collaborative learning. Hence, the team's strengths must be carefully considered, and the teacher must oversee the process (Rathner & Graeme, 2014). Similar skill levels within the team are likely to impede the learning curve, so teams should consist of a range of learners with different ability levels. A group of learners with similar learning abilities is more likely to inhibit learning and promote boredom rather than excitement and curiosity in the process. In addition to potentially discouraging team engagement and sociability, mismatched learning styles within the team may require the teacher to prepare extensively (Kraml, 2024). This outlines a few potential risks and disadvantages of collaborative learning that, if not planned and managed well, could outweigh its advantages.

11.12 Techniques in Effective Collaborative Learning

As much as cooperative learning positions learners at the core of their development and learning, this process is managed and mediated by the teacher. For instance, when forming groups, learners need to be purposefully and intentionally structured (Yang, 2023). Some techniques to ensure effective collaborative learning include:

- i. **Make goals and expectations clear:** It is important for the teacher, as the mediator of learning, to explain specific goals and expectations (Keiler, 2018). If learners are unclear about the goals they are expected to meet, group work can potentially devolve into socialisation or apathy. With mutual agreement, a clear division of labour is critical in collaborative learning (Yang, 2023). As collaborative learning is a democratic space, learners may negotiate and renegotiate boundaries among themselves (Ibid).
- ii. **Foster a culture of cooperation:** It's crucial to recognise that these abilities do not come naturally; anyone who has witnessed a group activity devolve into a fight will attest that this is often not the case. Cooperation skills require instruction, much like the majority of other competencies. This includes essential skills such as:
 - Listening: Effective teams need good listeners, a rare skill to find. This can be facilitated by establishing rules such as "three before me," which requires that at least three people share their thoughts before anyone speaks again.
 - Posing insightful inquiries: Investigation and critical thinking are built on compelling questions. Learners should be encouraged to consider what they need to know about a subject and how to formulate questions to elicit the best responses.
 - Conciliation: Occasionally, a group may struggle to reach a consensus, so it is vital that learners learn how to work towards agreement and compromise (Yang, 2023).
- iii. **Deliberately select which learners will work together:** If left to their own devices, learners will group themselves into friendship circles based on common connections. However, when a teacher sets up the groups, they can match students according to their strengths and limitations, purposefully blending abilities, variety, and social aptitude (Darling-Hammond et al., 2020).
- iv. **Size the groups for maximum effectiveness:** If a group is too small, the ideas and discussions may lack diversity and energy; if it is too large, some learners may not engage. The optimum group size tends to be four to five participants.
 - Teach your learners how to listen to one another.
 - Set the rules of language and collaboration.

There will always be one or two learners in each group who are more likely to take the lead—or take over. Take the time to teach these learners how to clarify issues, paraphrase, disagree constructively, and build on what others have contributed (Stump et al., 2011).

11.13 Conclusion

It can be concluded in this chapter that collaborative learning has social, psychological, academic, and assessment benefits, which also help learners develop certain values such as respect, selflessness, democracy, interdependence, and celebration of inclusivity. This means that collaborative learning subscribes to the Ubuntu philosophy, which advocates togetherness. In the collaborative classroom atmosphere, a teacher plays the role of a mediator by identifying, communicating the rules of engagement, and ensuring that these rules are understood by all learners. The goals of collaborative learning need to be explicitly outlined. As collaborative learning is a social space, the identification of the team members becomes paramount, as group members need to embrace each other's contributions rather than undermining and destroying one another. In line with Ubuntu principles, collaborative learning is about sharing ideas, collaboration, interaction, problem-solving, mutual engagement, and a sense of communality.

11.14 Reflective Questions

1. What are the characteristics of collaborative learning?
2. Explain the values that guide collaborative learning.
3. What are the benefits of collaborative learning?
4. Which steps are followed in creating an effective collaborative learning classroom?

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