### Is Co-teaching a Sustainable Practice in Teacher Education? Lecturers' Perception

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#### Abstract

The purpose of sustainability is to improve human well-being and quality of life, but the definition of sustainability may depend on context. The core of higher education is to enable academic staff to implement education that is sustainable. Therefore, ensuring sustainability in co-teaching may require providing each lecturer with the skills, knowledge, and attitudes needed to collaborate. Co-teaching is a teaching strategy in which lecturers collaborate to learn from one another's knowledge and expertise while influencing the education environment. The problem is that lecturers in higher education often collaborate in research but seldom collaborate in teaching and learning. This mixed method study investigated lecturers' experiences of co-teaching, and the strategies the lecturers have devised to promote and sustain co-teaching. The participants were 12 lecturers involved in the teaching of compulsory Educational Foundations modules at an institution of higher learning in South Africa. The findings reveal that sustainability of co-teaching at an institution of higher learning means empowering every lecturer involved in collaborative co-teaching through promoting social equity and democratic values. Although co-teaching is practiced at institutions of higher learning, it is suggested that more training on co-teaching is developed, to enable academic staff to build a sustainable future for collaborative learning settings.

Keywords: Co-teaching, Teacher Education, Sustainability, Collaborative Teaching

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## Introduction

The main goal of higher education is to empower academic staff to carry out sustainabilityfocused education. Lecturers in higher education are at the forefront in implementing sustainable, collaborative co-teaching practices in diverse cultural context (Toledo, 2020). Therefore, to ensure the sustainability of co-teaching, it might be necessary to equip each lecturer with the abilities, information, and attitudes necessary for cooperation. Lecturers are distinctive in that they have a variety of expertise and experience and are from different cultures. The paper investigates lecturers' experiences in co-teaching, as well as pedagogical strategies in the collaborative mindset of sustainability in diverse cultural contexts. The paper begins by discussing the context of co-teaching as a sustainable practice, learning experiences in co-teaching, the theoretical framework and research methodology used for this study, perspectives on the study's contribution, and recommendations for further study.

## Background

Recent debate has focused on how lecturers can be supported to make co-teaching sustainable in teacher education (Lock, Clancy, Lisella, Rosenau, Ferreira & Rainsbury, 2016, Härkki, Vartiainen, Seitamaa-Hakkarainen & Hakkarainen, 2021). The question is, how can coteaching be implemented as a sustainable practice in teacher education? Co-teaching is a teaching method in which lecturers work together to improve the educational environment while benefiting from one another's knowledge and experience. The general curriculum, which is deemed necessary for nearly all students, can be made accessible through coteaching (Rodriguez, 2022). Greater instructional intensity is achieved when the skills of the teachers are combined, which includes differentiating instruction for each student, and delivering instruction that is specifically tailored to their needs in different cultural enviroments (Celik, 2019). Sustainability is a fundamental aspect of collaborative coteaching that should be included as an indicator of good teaching practices. Regarding sustainable learning processes for making progress in co-teaching, it is important that lecturers work together effectively in planning, delivering instruction and assessing co-taught classes (Rodriguez, 2022). Although co-teaching has a solid research base, there is little information on how to make it a sustainable practice in teacher education in South Africa. The paper explores lecturers' experiences in co-teaching, as well as pedagogical strategies in the collaborative mindset of sustainability in diverse cultural contexts. To achieve the purpose of the study, the following question was pursued: What are lecturers' experiences in co-teaching practices in teacher education programmes, and how can co-teaching be implemented as a sustainable practice in teacher education?

#### **Co-teaching as a Sustainable Practice**

Co-teaching is a well-known education strategy that encourages socialization, collaboration and learning at various academic levels and in a variety of subject areas, and is founded in inclusive education (Hazelitt, 2022). Several definitions of co-teaching have been developed and elaborated over the years. Co-teaching was initially developed as a method of instruction to help students who have disabilities (Morelock, Lester, Klopfer, Jardon, Mullins, Nicholas, & Alfaydi, 2017). Two or more lecturers work side by side to deliver instruction, design student assessments, and do classroom management, therefore, sharing teaching (Chitiyo, 2017). Co-teaching is an instructional learning method, in which academic staff work together to acquire knowledge and skills to shape the environment of their institution in diverse cultural context (Rabin, 2020). Co-teaching can assume different approaches or models depending on students' education needs, and may be practiced in different contexts (Williams, 2023). The different co-teaching models are one teach, one assist; station teaching; alternative teaching; parallel teaching; and team teaching (Williams, 2023).

In order to learn more about co-teaching and the steps necessary to co-design, co-facilitate, and co-assess a graduate or doctoral-level course, Burns and Mintzberg (2019) carried out a study in Canada. They propose that co-teaching enables lecturers to experiment with various teaching pedagogies or pedagogical philosophies, create a more varied curriculum, build their confidence, and take greater risks in the classroom.

Roland and Jones (2020) used the theoretical and methodological intersection of critical performance pedagogy and critical autoethnography to analyse and contextualize classroom experiences. They found three pedagogical strategies that were effective when co-teaching challenging subjects: negotiating individual and collective space; navigating voice between collaboration and personal expression; and being aware of the role of affect in the learning environment. Collaborative co-teaching reduces lecturers' frustration, and its success is dependent on the professionalism and compatibility of those involved (Cook & Friend, 1995).

In teacher education programmes, lecturers need to provoke sustainable ways of thinking in student teachers. A modification of curricula and school programmes is crucial if student teachers are to be open-minded about participating in sustainable co-teaching practices. The traditional student teaching practicum is changed by co-teaching, into a paradigm of active collaboration, ongoing professional development, and shared leadership during teaching practice (Lenong, 2022). Therefore, developing effective, sustainable practices is crucial for student teachers who are beginning to work together in the classroom for the first time. Consequently, co-teaching practices should be sculpted for the professional development of student teachers. This suggests that effective co-teaching strategies in teacher education may entail providing lecturers and students with the abilities, drive, attitudes, and information necessary to carry out group tasks successfully.

## **Co-teaching and Learning Experiences**

There are several benefits and positive learning experiences of co-teaching in teacher preparation programmes - also for lecturers - such as enabling them to give each student more individual attention, and to exchange professional knowledge (Sundqvist, Björk-Åman & Ström, 2021). In addition, co-teaching addresses issues, illustrates instructional strategies, supports professionals in leading or participating in professional development initiatives, shares resources, shares authority, gains fluency and forges connections with other professionals from outside organizations (Thompson, & Schademan, 2019). Graziano and Navarrete (2012) explored their individual experiences of working together and co-teaching. Because of their co-teaching experiences, they were able to reflect on their instructional strategies and students' learning. They recommend that institutions support faculty collaboration in the classroom, especially in pre-service education courses. Furthermore, in South Africa it was discovered that co-teaching within mentorship in teacher preparation provides student teachers with learning opportunities and development. Lenong (2022) conducted a study to learn about pre-service teachers' experiences with co-teaching during mentoring teaching practicums via the lens of transformative learning. The outcomes of the focus group discussion of 24 pre-service teachers revealed that pre-service teachers recognize

the relevance of co-teaching in transforming their learning during teaching practicum while working with mentor teachers.

However, there have also been reports of negative experiences of co-teaching. In their 2008 study, Dugan and Letterman looked at students' self-reported evaluations of collaborative teaching in 11 team-taught courses at three New England state universities. They found that co-teaching hampered students' ability to understand expectations clearly and achieve high grades, because of organizational and communication problems. However, students favoured team-taught courses that used co-teaching strategies. When lecturers co-teach, they must share the classroom and transition from an individual to a collaborative model of accountability and sustainable practice, which can be difficult for those who are accustomed to working alone (O'Dwyer, Hamilton & Bowles, 2020). In reviewing 17 studies on the professional development of co-teaching teams, Fluijt, Bakker and Struyf (2016) found that the interpersonal and normative aspects of team development were the main barriers to co-teachers' professionalization. In many ways, co-teaching is dependent on lecturers fostering collegiate, compassionate, and cooperative relations in diverse cultural contexts (Conderman, Bresnahan, Teacher, & Pedersen, 2008; Rabin, 2020).

#### **Theoretical Framework**

Transformative learning theory was used as the primary analytical framework for this article. According to the transformative learning theory, learning modifies students' frames of reference and leads to behavioural change (Mezirow, 2003). Transformative learning transformative learning is reflective, critical, emotionally adaptable, open and produces a more substantial, significant, and long-lasting learning experience in a supportive social, cultural, and physical environment (Mezirow, 2009; Halupa, 2017). One of the goals of transformative learning is to bring about social change to alter oppressive customs, beliefs, institutions, and socioeconomic frameworks and make it possible for individuals to interact with one another in diverse cultural contexts (Mezirow, 2009). Since people's expectations are not always met and things do not always turn out as they are supposed to, transformative learning theory helps people to modify their mental models and to make sense of their experiences (Mezirow, 2012). Transformative learning theory is relevant to this study because it is emancipatory and liberating for the individual as well as the community (Fleming, 2018). Because it is reflective and critical, transformative learning results in a more substantial, significant, and lasting learning experience (Halupa, 2017). Co-teaching gives lecturers the chance to change their perspectives, so they can collaborate and share knowledge in diverse cultural environments to enhance their classroom management; as a result, it has the potential to be a sustainable practice.

## Methodology

The purpose of the article is to investigate lecturers' experiences of co-teaching practices in teacher education programmes and how co-teaching can be implemented as a sustainable practice. Thus, a mixed methods approach was employed to explore the lecturers' experiences of co-teaching and the pedagogical strategies used in a collaborative mindset of sustainability. To confirm findings, quantitative data was gathered first, then qualitative data was gathered that could both shed light on some of the quantitative findings and confirm the accuracy of the quantitative data. The purposive random sample comprised 12 lecturers at a university of technology in South Africa. All the lecturers were involved in co-teaching

teacher education students from first-year level to fourth-year level. Participants voluntarily completed an online questionnaire; confidentiality and anonymity were guaranteed. Ethics clearance and the required institutional authorization were obtained.

Data collection began with an initial survey that was sent to all participants. The questionnaire responses were collected and analysed using Question Pro, and the data was analysed using descriptive statistics. Frequencies were computed to ascertain participants' experiences of co-teaching. Thereafter, the participants were invited to participate in a follow-up interview. The semi- structured interviews were conducted virtually or face to face, one-on-one with each participant. The semi-structured interviews were recorded and transcribed, and the semi-structured interview data were subjected to thematic analysis. The themes were derived from the key research question.

## **Research Findings**

The analyses indicate that participants in this investigation experienced opportunities and challenges in their experiences of co-teaching, and that the lecturers devised strategies to promote and sustain co-teaching. The researcher will present both the discussion and implications of the research in accordance with transformative learning theory. Descriptive statistics were produced from the data in the first stage, which involved the quantitative approach. In the second stage, semi-structured interview data from the qualitative phase were analysed and interpreted using text analysis.

## **Quantitative Data Findings**

The composition of the sample of lecturers was that 70% of the respondents were women, whilst 30% were men. Only two (17%) of the participants had obtained Doctoral qualifications, while 4 (33%) had Master's degrees and 6 (50%) had Honours degrees in Education.

#### Summary of the Data From Questionnaire Survey

The data gathered by means of the questionnaire survey are presented below. Respondents selected their answers from a scale ranging from 1 to 4, ranging from Strongly agree, Agree, Strongly disagree to Disagree.

Statements per Category	Strongly Agree Diaggree Strongly			
Lecturers 'experience	agree %	Agree %	Disagree %	Disagree %
I did not have knowledge on how to co-teach	90	1	1	8
I was trained on co-teaching practices before	10	0	9	81
I was never involved in co-teaching before	89	9	1	1
I enjoyed collaborating with colleagues in teacher education	92	6	1	1
I managed to experiment with various co- teaching pedagogies	85	10	2	3
I have gained co-teaching skills during teacher education collaboration	88	16	3	3
I was able to share successfully good practices during teacher education collaboration	90	8	1	1
Challenges				
Lack of communication during teacher education collaboration	88	4	3	5
A lack of resources during teacher education collaboration	60	30	5	5
Lack of knowledge and skills to collaborate during teacher education collaboration	89	8	1	2
Inadequate time to collaborate during teacher education collaboration	78	10	6	6
Sustainability				
Co-teaching requires both time and effort	78	10	6	6
Lecturers must be trained before they collaborate	90	7	1	2
Sustainability in co-teaching means equipping staff with skills	80	16	3	1
Sustainability in co-teaching means equipping staff with motivation	89	8	1	2
Sustainability in co-teaching requires active participation	85	10	2	3
Sustainable co-teaching practices leads to social change	90	7	1	2

Table 1: Summary of responses to the questionnaire survey (N=12)

## Lecturers' Experience

It is apparent from Table 1 that lecturers' experience of co-teaching in the teacher education programme were positive. Regarding lecturers' knowledge of co-teaching practices, the majority of the respondents affirmed that they only came to know about co-teaching when they had to collaborate in the teacher education programme. The majority reported that they enjoyed collaborating, and that they shared co-teaching pedagogical practices. However, it is also apparent that few lecturers had had knowledge or skills relating to co-teaching before

embarking in collaborative co-teaching in teacher education. It is interesting that few lecturers had undergone training on collaborative co-teaching before starting to collaborate in teacher education.

#### Challenges

The participants agreed that lack of communication, lack of resources, lack of knowledge and skills and inadequate time are the barriers to sustainable co-teaching.

## Sustainability of Co-Teaching

The third part of the survey sought information on the sustainability of co-teaching in teacher education. Table 1 shows that the majority of the respondents believed that co-teaching may be a sustainable practice in teacher education. The participants alluded the following as prerequisites for co-teaching to be a sustainable practice: it requires both time and effort, lecturers must be trained, equipped with skills, lecturers be motivated, needs active participation, and co-teaching leads to social change.

The results of the qualitative data analysis are discussed in the next session.

## Lecturers' Qualitative Data

The following research questions guided the collection of qualitative data:

What are your experiences in implementing co-teaching in the classroom? How can co-teaching be implemented as a sustainable practice in teacher education?

## **Experiences in Implementing Co-teaching in Teacher Education**

The lecturers expressed the following statements about their experience of co-teaching practices.

- Lecturer 9: Co-teaching is a wonderful experience because you gain knowledge by working with a colleague. Training is important.
- Lecturer 4: *We collaborated well, and we had to research information about collaboration in order it to work.*
- Lecturers 6: *My experience in working together was an effective one, though at first, I was a bit scared of going to class with my partner.*
- Lecturer 2: Co-teaching made things easier when we presented the lesson, planning and especially when we had to assess the students because were able to share knowledge. We came up with good practices.
- Lecturer 10: Co-teaching is difficult at first if you didn't go for training or gained the knowledge or skills of collaboration.
- Lecturer 7: We empowered each other, and we managed to solve co-teaching problems. But if we did go through training it could have been better.
- Lecturer 8: Collaborative partners must be trained to effectively work together.
- Lecturer 3: I wish there were regulations intended to educate and prepare co-teaching partners with the knowledge, disposition, and abilities necessary to carry out co-teaching practices successfully.

A discussion of the co-teaching experiences is dealt with in the discussion section.

## Implementation of Co-teaching as a Sustainable Practice in Teacher Education

Lecturers who were interviewed made various suggestions on how co-teaching can become a sustainable practice. These recommendations are captured in the following responses by lecturers.

- Lecturers 5: *Empowering and equipping every member of teacher education with co-teaching skills and knowledge.*
- Lecturer 1: All parties must be committed effective co-teaching practices.
- Lecturer 8: Lecturers must promote social equity and democratic values when working with co-partners.
- Lecturer 2: Lecturers must use a variety of approaches, strategies, and models to meet the needs of the students.
- Lecturer 11: Maintaining a positive relationship with another lecturer is of utmost important.
- Lecturer 7: Co-teaching partners must create a co-teaching learning environment that engages all the students.
- Lecturer 3: Training, training, training is important for collaboration.
- Lecturer 6: Co-teaching must promote autonomy to make decisions.
- Lecturer 10: Respect, effective communication and training are necessary.
- Lecturer 12: Active participation by both partners.
- Lecturer 4: Guidelines, policies and resources are necessary for sustainable co-teaching.
- Lecturer 9: Lecturers need to encourage collegiate, sympathetic, and cooperative relationships for sustainable co-teaching practice.

A discussion of co-teaching as a sustainable practice follows.

#### Discussion

The data from the survey and qualitative interview clearly show that co-teaching as instructional learning was a fruitful and positive learning experience for lecturers, though lecturers emphasised that, to be successful, co-teachers must be equipped with the necessary knowledge, skills, and attitudes. The lecturers enjoyed working with their colleagues in collaborative classrooms, and they were able to exchange pedagogical strategies for co-teaching. These results demonstrate that co-teaching cannot be person-centred, and lecturers need to be prepared with the knowledge, skills, and mindsets necessary for successful co-teaching (Conderman et al., 2008). Although at first co-teaching may seem like a terrifying, overwhelming task, it allows lecturers to share their best pedagogical practices and provides opportunities for learning.

The data from the qualitative and quantitative research methods concur with the findings of other researchers who also noted that, for co-teaching to be a sustainable practice, there are strategies or elements necessary, namely, it requires both time and effort and training is necessary; furthermore, co-teachers must be equipped with skills, motivation, active participation, effective communication, and respect, they must maintain positive relationships and autonomy, and they must guidelines, policies and resources, promote social equity and democratic values – then, co-teaching will lead to social change (Lock et al., 2016; Rabin, 2020). The lecturers in this study believed that co-teaching may be a sustainable practice in teacher education.

## Conclusion

The article presented a mixed methods study that investigated lecturers' experiences of coteaching practices in teacher education programmes, and asked how co-teaching can be implemented as a sustainable practice in diverse cultural contexts. The shift to sustainable practices involves a fundamental thinking-through of the basic issues of co-teaching. In teacher education at an institution of higher education, certain courses for student teachers implemented collaborative practices. The findings show that lecturers require considerable freedom or autonomy to make judgements, because they must draw on knowledge-based skills and values-based decision-making in non-routine and routine situations that are often complex and risky. Collaboration has repeatedly been found to be one of the best indicators of the adoption and sustainability of various school-based practices, including co-teaching. Lecturers' positive learning experiences of co-teaching, and the success and sustainability of co-teaching is rightfully ascribed to sharing pedagogies. To ensure the sustainability of the practices, co-partners must be trained, equipped with the necessary co-teaching skills, and motivated to use co-teaching approaches or models and techniques. The finding of this research also provides insights into designing sustainable co-teaching practices in teacher education. Therefore, higher education institutions should embrace co-teaching, and careful consideration needs to be given to training co-partners. Co-teaching has the potential to be a sustainable practice, because co-teaching gives lecturers the chance to adjust their perspectives, so they can work together and share knowledge to improve their classroom practices and enhance student learning. Co-teaching increases lecturers' awareness of social concerns, but different cultural experiences and backgrounds may generate resistance to change; hence, for co-teaching to be sustainable, lecturers must build new meaning perspective that permit transformative learning. From a South African perspective, the study provides insight into lecturers' experiences in co-teaching, as well as pedagogical practices in the collaborative mindset of sustainability in varied cultural contexts and has major implications for teacher education.

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