



Integration of Cooperative Learning Approaches in ESL Teaching in Pakistan: Challenges, Practices, and Pedagogical Implications

Muhammad Zaman

Lecturer, Department of English, Federal Urdu University of Arts Science and Technology, Islamabad Email: muhammad.zaman6467@gmail.com

Muhammad Sadiq

Lecturer, United Medical & Dental College, Karachi, Sindh, Pakistan
Email: muhammadsadiq1004@gmail.com

Zohaib ur Rehman

Lecturer, Department of English, Federal Urdu University of Arts Science and Technology, Islamabad Email: zohaiburrehman119@gmail.com

Saqib Abbas (Corresponding Author)

Assistant Professor, Department of English, Benazir Bhutto Shaheed University Lyari (BBSUL), Karachi, Sindh, Pakistan Email: saqib.Abbas@bbsul.edu.pk

ABSTRACT

Cooperative learning (CL) has been widely recognized in educational research as an effective pedagogical approach for promoting student engagement, interaction, and language development. However, despite its documented benefits, the practical integration of cooperative learning strategies in ESL classrooms remains challenging, particularly within teacher education institutions. In Pakistan, teacher educators often rely on traditional teacher-centred instructional practices, which may limit the adoption of collaborative and student-centred methodologies. These challenges may stem from perceived difficulties related to instructional management, learner readiness, curriculum demands, and institutional constraints. This study employed a concurrent triangulation mixed-methods research design to investigate the perceived challenges associated with the implementation of cooperative learning approaches among ESL teacher educators in Pakistan. Quantitative data were collected through a structured questionnaire administered to 300 teacher educators across teacher training institutions, followed by qualitative insights obtained through semi-structured interviews with eight selected participants. The findings indicated that approximately 63% of the perceived implementation barriers were associated with teacher-related factors, learner-related challenges, curriculum limitations, and administrative constraints. Furthermore, female teacher educators reported comparatively higher levels of perceived challenges than their male counterparts, while analysis of variance (ANOVA) revealed statistically significant differences across age groups. The results highlight the necessity for comprehensive professional development, curriculum flexibility, and institutional support to facilitate the effective integration of cooperative learning strategies in ESL education within Pakistan. The study also suggests the need for further large-scale investigations across diverse educational contexts to develop contextually relevant pedagogical interventions.

Keywords: Cooperative Learning, ESL Teaching, Student-Centred Learning, Teacher Education, Pakistan



Introduction

The capacity to collaborate effectively with others has become a fundamental competency in contemporary educational and professional environments, particularly within the demands of the twenty-first century knowledge economy. Educational systems worldwide increasingly emphasize teamwork, communication, and problem-solving skills as essential learning outcomes for students and teachers alike. In this regard, teacher education programmes play a pivotal role in equipping future educators with the pedagogical knowledge, instructional competencies, and professional dispositions required to respond to evolving classroom dynamics and learner needs (Darling-Hammond, 2017). In Pakistan, where English functions as a second language and often as a medium of instruction in higher education, the preparation of competent ESL teachers is especially critical for improving learning outcomes and academic success.

Teacher preparation programmes not only transmit theoretical knowledge but also shape instructional practices by introducing innovative pedagogical approaches such as cooperative learning (CL). Cooperative learning refers to structured instructional strategies in which learners work collaboratively in small groups to achieve shared academic goals while being individually accountable for their learning (Johnson & Johnson, 2014). Research has consistently demonstrated that cooperative learning enhances academic achievement, promotes positive interdependence, and fosters social interaction skills, particularly in language learning contexts where communication and interaction are central to skill development (Slavin, 2015). For ESL learners, cooperative learning provides opportunities for meaningful language use, peer scaffolding, and increased participation, thereby facilitating language acquisition and communicative competence (Gillies, 2016).

In the context of the twenty-first century classroom, teachers are also expected to integrate technology-mediated instruction alongside innovative pedagogical strategies. The incorporation of digital tools, collaborative platforms, and interactive learning environments can further strengthen cooperative learning practices by supporting engagement and active participation among learners (Voogt et al., 2018). Consequently, teacher education programmes that emphasize both pedagogical innovation and technological integration can create more dynamic and learner-centred instructional environments for pre-service teachers. Such preparation enables future educators to respond effectively to diverse learner needs, including those of ESL students who often require interactive and supportive learning contexts.

However, despite the documented benefits of cooperative learning, its implementation within teacher education institutions, particularly in developing educational contexts such as Pakistan, remains inconsistent. Traditional teacher-centred instructional approaches continue to dominate classroom practices due to factors such as large class sizes, rigid curricula, limited institutional resources, and insufficient professional training (Jamal & Zaman, 2025). These contextual challenges may hinder teacher educators from adopting cooperative learning strategies, thereby restricting opportunities for pre-service teachers to experience and practice collaborative pedagogies during their training. Understanding these challenges is therefore essential for improving pedagogical practices and strengthening teacher education programmes.

Given the importance of collaborative skills and student-centred pedagogy in modern education, there is a need to explore how cooperative learning approaches are integrated into ESL teaching within Pakistani teacher education programmes. Examining the challenges, practices, and pedagogical implications associated with cooperative learning



implementation can provide valuable insights for policymakers, teacher educators, and curriculum developers aiming to enhance the quality of teacher preparation and ESL instruction in Pakistan.

Theoretical Framework

The present study was grounded in three complementary theoretical perspectives that collectively explain the dynamics influencing the implementation of cooperative learning. The first framework is Social Cognitive Theory, proposed by Albert Bandura, which emphasizes the role of observational learning, self-efficacy beliefs, and outcome expectations in shaping individual behaviour. Within the context of cooperative learning implementation, challenges may emerge due to limited opportunities for effective social modelling, reduced confidence in one's instructional abilities, and negative expectations regarding outcomes. Such factors can discourage both teacher educators and pre-service teachers from actively engaging in cooperative learning practices.

The second framework guiding this research is Sociocultural Theory, introduced by Lev Vygotsky, which highlights the central role of social interaction in cognitive development and learning. According to this perspective, knowledge construction occurs through collaborative engagement with others, enabling learners to co-construct understanding and develop higher-order thinking skills. Cooperative learning environments provide opportunities for learners to operate within their Zone of Proximal Development (ZPD), where they can successfully perform tasks with the support of peers and instructors. Through interaction, scaffolding, and feedback, learners are able to achieve deeper comprehension and skill development than would be possible independently.

The third theoretical lens is Self-Determination Theory, developed by Edward Deci and Richard Ryan, which focuses on the motivational dimensions of human behaviour, particularly the psychological needs for autonomy, competence, and relatedness. When these needs are fulfilled, individuals are more likely to demonstrate intrinsic motivation and active engagement. However, in cooperative learning contexts, a lack of autonomy, perceived incompetence, or insufficient social connectedness may reduce the motivation of pre-service teachers to participate effectively in collaborative learning activities. These motivational barriers may therefore contribute to the difficulties encountered during the implementation of cooperative learning strategies.

Together, these theoretical frameworks provide a comprehensive understanding of how cognitive, social, and motivational factors influence the adoption and implementation of cooperative learning within teacher education contexts.

Research Problem

Although teachers generally possess theoretical awareness of the principles and benefits associated with cooperative learning (CL), their classroom practices often fail to reflect the empirical evidence supporting its effectiveness. Teacher educators frequently advocate for innovative pedagogical approaches; however, in practice, cooperative learning is often delivered through traditional teacher-centred methods, particularly lecture-based instruction. This contradiction creates a gap between pedagogical theory and instructional practice within teacher education programmes.

Moreover, teacher educators typically provide pre-service teachers with conceptual knowledge about cooperative learning without sufficient opportunities for practical application. As a result, trainee teachers may graduate without the necessary skills or confidence to implement cooperative learning strategies effectively in real classroom



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settings. While some motivated teacher educators attempt to integrate cooperative learning into their teaching, they often encounter numerous challenges during the implementation process, including institutional constraints, learner-related difficulties, and limited instructional support.

Given these concerns, the present study seeks to explore and understand the specific challenges faced by teacher educators who attempt to implement cooperative learning strategies. Investigating these challenges is essential for identifying barriers that hinder effective adoption and for developing strategies that can facilitate the successful integration of cooperative learning within teacher education programmes.

Objectives of the Study

To examine the perceived challenges encountered by teacher educators in implementing cooperative learning (CL) strategies within their instructional practices.

To investigate whether perceived challenges related to cooperative learning implementation vary across demographic variables, including gender, age, and teaching experience among teacher educators.

To determine the relationship between teacher educators' perceived implementation challenges and their age as well as years of professional teaching experience.

Research Questions

What challenges do teacher educators perceive when implementing cooperative learning strategies in their classrooms?

Do perceived challenges in implementing cooperative learning differ significantly based on teacher educators' demographic characteristics such as gender, age, and years of teaching experience?

Is there a statistically significant relationship between perceived challenges in cooperative learning implementation and teacher educators' age and teaching experience?

Review of Related Literature

Cooperative learning (CL) is an instructional approach that involves learners working collaboratively in small groups to accomplish shared academic objectives. This pedagogical strategy has been widely acknowledged for its positive influence on academic achievement, learner motivation, interpersonal skills, and collaborative competence, particularly among pre-service teachers (Gillies, 2016). Similarly, Abramczyk and Jurkowski (2020) emphasized that cooperative learning not only enhances academic performance but also promotes social development while offering opportunities for individualized learning experiences. In language education contexts, CL has been shown to improve learners' linguistic competence and communication skills (Namaziandost et al., 2020). Furthermore, CL facilitates interdisciplinary integration and simplifies instructional processes by promoting active learner engagement (Li et al., 2022). Research also indicates that the implementation of cooperative learning significantly strengthens students' critical thinking and creative abilities (Silva et al., 2022). When properly structured, cooperative learning can ensure fairness, equity, and inclusive participation, thereby fostering socially just and transformative educational environments (Muñoz-Martínez et al., 2020). Additionally, CL contributes to the development of learning communities characterized by collegiality, shared goals, collaborative dialogue, commitment, improved instructional planning, and adaptability.



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among educators and learners (Niemi, 2021). Collectively, these studies underscore the extensive benefits of cooperative learning for both teachers and students.

Teachers play a central role in facilitating collaborative learning processes, as they guide students in problem-solving and group interaction. Consequently, teacher education institutions bear significant responsibility in preparing future educators to implement innovative group-based instructional approaches such as CL. Supporting this notion, Cañabate et al. (2021) reported that teacher educators who promote autonomy and structured learning environments within teacher training programmes contribute positively to the successful implementation of cooperative learning. Likewise, effective monitoring, mentoring, and facilitation of student interactions are essential components for successful CL integration in teacher education contexts (Kaendler et al., 2019). In this regard, teachers' pedagogical competencies are critical determinants of successful cooperative learning implementation (van Leeuwen & Janssen, 2019).

Despite the documented advantages, the successful application of cooperative learning is often hindered by inadequate training and limited professional experience among teacher educators. Farrell and Jacobs (2016) noted that inexperienced educators frequently struggle to implement CL effectively. Insufficient reflective practice further reduces the adoption of innovative teaching strategies such as cooperative learning. Nevertheless, the training experiences teachers receive during their professional preparation significantly influence their willingness to adopt innovative instructional methods in their future careers (Kusumaningrum et al., 2019; Moges, 2019). Moreover, the theoretical foundations provided in teacher education programmes contribute to the development of teaching competencies, values, and professional dispositions among pre-service teachers (Johnson & Johnson, 2017).

Experiential learning opportunities during teacher training also play an important role in shaping positive attitudes toward collaborative pedagogies (Saborit et al., 2016; Zheng & Zhou, 2023). Conversely, limited exposure to cooperative learning during training programmes may result in insufficient knowledge about CL strategies among pre-service teachers. In practice, implementing cooperative learning often presents challenges due to its practical demands within teacher education settings (Liebech-Lien, 2020; Muñoz-Martínez et al., 2020). Some studies indicate that teacher educators continue to prefer lecture-based instruction rather than active learning approaches, creating a discrepancy between pedagogical beliefs and actual classroom practices (Baloche & Brody, 2017). Traditional lecture-oriented teaching dominates teacher education programmes, resulting in limited practical experience with cooperative learning strategies among trainee teachers (Montanero & Tabares, 2020). Although teaching and learning methodologies have evolved over time, lecture-based instruction remains the dominant mode in many teacher education contexts (Loh & Ang, 2020). Teacher educators often believe that conventional teacher-centred approaches, such as frontal teaching, are more reliable in achieving instructional success, which discourages the adoption of CL methods (Thorburn, 2020).

Teachers may also demonstrate skepticism regarding the effectiveness of cooperative learning, relying primarily on lecture-based instruction. Active learning strategies like CL may be perceived as uncomfortable or difficult to implement during pre-service training due to entrenched traditional teaching norms (Baloche & Brody, 2017). While contemporary learners increasingly demand interactive learning approaches, lecture-based methods may no longer align with modern educational needs. Although teacher training institutions may emphasize learner-centred pedagogy, multiple barriers such as insufficient student preparedness, limited awareness of CL benefits, overcrowded



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classrooms, and classroom management concerns hinder effective implementation (du Plessis, 2020). Additionally, weak collaboration skills, limited competence, and lack of peer relationships among students further complicate cooperative learning implementation (Le et al., 2018). Teachers' excessive focus on cognitive outcomes without emphasizing collaboration, support, and equitable participation may also limit the effectiveness of CL practices (Dzemidzic Kristiansen, 2022). Therefore, teacher educators must incorporate key cooperative learning elements such as promotive interaction, individual accountability, social skills development, and reflective group processes to achieve successful outcomes (Gillies, 2016). Cooperative learning support mechanisms also influence the extent to which students actively construct knowledge during collaborative learning activities (van Leeuwen & Janssen, 2019).

Although teachers may possess theoretical knowledge about the principles and advantages of cooperative learning, their classroom practices often fail to reflect these research-based insights (Abramczyk & Jurkowski, 2020). Teachers frequently encounter difficulties in forming groups, establishing group objectives, and selecting appropriate cooperative learning strategies due to limited understanding of CL methodologies. Consequently, cooperative learning activities may resemble unstructured group work rather than systematic instructional strategies. Such limitations may also negatively influence classroom management skills (Ghaith, 2018; Kishore, 2016), leading to unfavorable perceptions of cooperative learning among both teachers and students (Opdecam & Everaert, 2018). However, Petre (2022) argued that successful classroom implementation of CL depends significantly on the quality of initial teacher training programmes. Teachers who receive adequate training in cooperative learning are more likely to incorporate these strategies effectively, thereby enhancing student engagement and learning outcomes. Pre-service teacher education plays a crucial role in preparing educators capable of addressing future societal needs, and instructional practices adopted today will shape future educational outcomes (Cañabate et al., 2021; Ghaith, 2018; Ghufon & Ermawati, 2018; Keramati & Gillies, 2021; Letina & Vasilj, 2021; Mukuka et al., 2019).

In addition, research suggests that teaching practices experienced during training and access to instructional resources significantly enhance teachers' confidence in implementing active learning approaches (Haug & Mork, 2021). Physical and pedagogical environments, including classroom layout and furniture arrangements, also influence the successful adoption of collaborative learning methods (Asino & Pulay, 2019). Classroom design must adapt to pedagogical shifts that prioritize interaction, collaboration, and knowledge construction among learners (D'Eon & Zhao, 2022). Moreover, ignoring teachers' and students' perspectives during educational planning may create additional challenges in adapting to collaborative learning environments (Purba et al., 2022). Instructors also face difficulties when curriculum structures, professional development opportunities, and instructional materials fail to support cooperative learning implementation.

Teacher education programmes are frequently criticized for inadequately preparing students with the professional competencies required for their careers (Weinberger & Shonfeld, 2020; Dzemidzic Kristiansen et al., 2019). Limited availability of trained teacher educators, combined with inadequate infrastructure, further weakens pre-service teacher preparation. Effective modelling of cooperative learning strategies should begin within teacher education classrooms themselves (Kimmelman & Lang, 2019; Keramati & Gillies, 2021; Letina & Vasilj, 2021; Mukuka et al., 2019).



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Both teachers and students sometimes believe that teacher-centred instructional approaches offer the most effective learning opportunities (Buchs et al., 2017). Misconceptions regarding cooperative learning often arise due to limited exposure to student-centred pedagogies (Ghaith, 2018). Teachers may justify their reluctance to adopt CL by citing classroom discipline concerns, increased noise levels, lack of student cooperation, curriculum overload, or limited strategy suitability across subjects. These factors are often used to rationalize low motivation toward cooperative learning implementation (Buchs et al., 2017; Ghaith, 2018; Opdecam & Everaert, 2018). Successful implementation of cooperative learning requires systematic planning and collaboration between teachers and students (Keiler, 2018). Therefore, further research is needed to better understand teachers' and students' perceptions regarding the practical application of cooperative learning based on their experiences (Haug & Mork, 2021).

The literature reviewed above highlights the importance of examining teachers' perceived challenges in integrating cooperative learning strategies. These challenges arise from multiple factors, including insufficient knowledge, misconceptions, negative attitudes, learner-related issues, administrative limitations, and resource constraints. Investigating these barriers can provide meaningful insights into obstacles that hinder widespread adoption of cooperative learning and support the development of practical solutions.

Moreover, limited research has specifically examined teacher educators' perceived challenges in implementing cooperative learning, particularly in teacher education institutions within middle-income countries. Teacher educators in such contexts often lack adequate training and operate within multicultural educational environments, which may intensify implementation challenges. Therefore, exploring their perceptions is essential for contributing to the broader body of knowledge on cooperative learning and teacher education. Such investigations can provide valuable insights into the difficulties experienced by teacher educators and inform future research directions.

Finally, although challenges related to cooperative learning implementation are globally recognized, teacher education systems vary across countries due to differing regulatory frameworks and institutional structures. Nonetheless, some challenges remain universal, including insufficient modelling of innovative pedagogies such as cooperative learning within teacher education programmes. There is also a lack of empirical research examining whether teacher education programmes provide adequate institutional and pedagogical support for effective cooperative learning implementation.

Research Methodology

General Background

This study adopted a mixed-method research approach using a concurrent triangulation design (Creswell & Creswell, 2017), in which quantitative and qualitative data were collected simultaneously. The purpose of this design was to cross-validate findings by integrating evidence from both data sources. Quantitative data were gathered through a structured survey questionnaire, while qualitative insights were obtained using semi-structured interviews. Interviews allowed for deeper exploration of teacher educators' perceived challenges in implementing cooperative learning (CL), whereas the survey enabled broader generalization across a larger sample.

Given concerns that teacher education in middle-income countries often emphasizes theoretical instruction rather than practical demonstration of active learning strategies such as CL, the combined use of surveys and interviews helped examine this gap between theory and practice. Collecting both forms of data concurrently strengthened the



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credibility and validity of the findings.

The researchers developed the Perceived Challenges to Cooperative Learning Implementation (PCCLI) questionnaire using a five-point Likert scale based on existing literature and study objectives. Content validity was established through expert review by five subject specialists, and revisions were incorporated accordingly. The final instrument consisted of 12 items. A pilot test with 40 teacher educators was conducted to determine internal consistency, resulting in a Cronbach's alpha reliability coefficient of 0.63. Qualitative data were collected through semi-structured interviews, a method considered effective for in-depth exploration of participants' experiences (Kallio et al., 2016; Louise Barriball & While, 1994). The interview protocol was also validated by experts.

Ethical considerations were addressed through informed consent, voluntary participation, and institutional ethical approval. Data collection was conducted between August and September 2022.

Sample

For the quantitative phase, a convenience sampling technique was used. Approximately 550 teacher educators were invited to participate, resulting in 300 valid responses. Participants were categorized into quartiles based on their survey scores, and two quartiles were randomly selected for the qualitative phase to ensure diverse perspectives. Data saturation was achieved after interviewing eight teacher educators, which constituted the final qualitative sample.

Instruments and Procedures

Two instruments were utilized: the PCCLI questionnaire for quantitative data and a semi-structured interview guide for qualitative data. The questionnaire was distributed electronically via Google Forms, including informed consent and demographic sections. Interview participants were invited through email, and confidentiality was ensured through pseudonyms (T1–T8). Interviews were conducted via Google Meet, recorded with permission, and transcribed verbatim. Rapport was established before interviews, and probing questions were used to obtain detailed responses.

Data Analysis

Quantitative data were analysed using descriptive statistics (mean, standard deviation, and percentages) along with independent sample t-tests and ANOVA to examine relationships between perceived challenges and demographic variables such as gender, age, and teaching experience. The Tukey–Kramer post hoc test was applied where significant differences were identified. Statistical analysis was performed using JAMOV (version 2.3.16).

Qualitative data were analysed through thematic analysis, which is suitable for understanding participants' experiences, perceptions, and viewpoints (Maguire Moira, 2014). The analysis involved repeated reading of transcripts, coding, identification of themes and subthemes, reduction of bias, and consolidation of patterns across participants to ensure validity. Themes were refined and reviewed before final interpretation to accurately represent participants' experiences.

Research Results

To examine the second objective of the study, an independent samples t-test was conducted to determine whether differences existed in the Perceived Challenges to



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Cooperative Learning Implementation (PCCLI) scores based on gender among teacher educators. The results are presented in Table 1.

Table 1

Independent Samples t-Test Comparing PCCLI Scores between Male and Female Teacher Educators

Statistic	t-value	df	p-value
Student's t	3.44*	298	< .001
Welch's t	3.57	283	< .001

Note: Levene's test was significant ($p < .05$), indicating violation of the assumption of equal variances.

The findings indicate a statistically significant difference between male ($M = 36.5$, $SD = 3.67$) and female teacher educators ($M = 38.2$, $SD = 4.39$) in perceived challenges related to cooperative learning implementation, $t(293) = 3.57$, $p < .05$. Female teacher educators reported higher levels of perceived challenges compared to their male counterparts.

To further investigate differences based on professional experience, a one-way ANOVA was conducted across different categories of teaching experience. The results are presented in Table 2.

Table 2

One-Way ANOVA of PCCLI across Teaching Experience Groups

Variable	F	df1	df2	p-value
PCCLI	1.39	2	297	.25

The results reveal no statistically significant differences in PCCLI scores among teacher educators with varying years of teaching experience, $F(2, 297) = 1.39$, $p > .05$. The mean scores were comparable across beginner ($M = 37.6$, $SD = 3.92$), mid-career ($M = 36.9$, $SD = 3.89$), and senior educators ($M = 37.8$, $SD = 4.47$).

A separate one-way ANOVA was performed to examine differences in PCCLI scores across age groups of teacher educators. The results are presented in Table 3.

Table 3

One-Way ANOVA of PCCLI across Age Groups

Variable	F	df1	df2	p-value
PCCLI	3.54	2	297	.030

The analysis demonstrated a statistically significant difference in perceived challenges among different age groups of teacher educators, $F(2, 297) = 3.54$, $p < .05$. The mean scores indicated that beginner teachers ($M = 38.2$, $SD = 3.92$) reported higher perceived challenges compared to mid-career ($M = 36.4$, $SD = 3.79$) and senior educators ($M = 37.8$, $SD = 4.29$).

To further explore group differences, a Tukey–Kramer post hoc test was conducted to examine interaction effects among beginner, mid-career, and senior teachers. The results are shown in Table 4.

Table 4 Tukey Post Hoc Test for PCCLI across Age Groups

Comparison Groups	t-value	df	p-value
Mid-career vs Senior	-2.55	297	.030
Mid-career vs Beginner	-1.787	297	.176



Comparison Groups	t-value	df	p-value
Senior vs Beginner	-0.375	297	.926

The post hoc analysis indicates a significant interaction effect between mid-career and senior teacher educators. However, no statistically significant differences were observed between senior and beginner groups or between mid-career and beginner groups.

To address the third objective, correlational analyses were conducted to examine relationships between PCCLI scores and both age and teaching experience. The Pearson correlation coefficient between PCCLI and age ($r = .09$) indicated no meaningful relationship. Similarly, the correlation between PCCLI and years of teaching experience ($r = .178$) also suggested no significant association, although both correlations showed a weak positive trend.

Table 5

Themes and Sub-themes of Challenges in Implementing Cooperative Learning

Themes	Sub-themes
Practical Knowledge and Belief	Teacher Challenges: Managing classroom, Implementation confusion
Learner Challenges	Attitude, Prior exposure to active learning
Curriculum Challenges	Burden of syllabus, Too much focus on marks, Rigid classroom furniture & inadequate learning materials
Administrative Challenges	Indifference towards active learning, Lack of professional development programmes

Teacher Challenges

Practical Knowledge and Belief

The analysis highlighted that teacher-related challenges in implementing cooperative learning (CL) largely stem from gaps in practical knowledge and personal beliefs. Most teacher educators acknowledged awareness of CL's benefits but reported hesitation in its practical application. Many educators cited limited knowledge of various CL strategies and insufficient training for their classroom implementation.

T1: "I like CL but usually do not use it in class [...] I have used it once or twice [...], teaching using CL is an additional burden, and I think the lecture method is more effective [...]"

T2: "Whenever I used CL strategies, I found that it encouraged social interaction and discussion and developed communication skills [...], but in the typical classroom, it is not practicable owing to many students [...]"

T5: "I have no practical experience teaching with CL strategies [...] it is difficult to prepare lessons using CL [...] I am not familiar with CL strategies [...]"

Managing Classroom

Classroom management was another critical sub-theme. Teachers reported difficulty in forming and supervising CL groups, especially in large classrooms.

T6: "I have used only peer tutoring as a CL strategy [...] It is not easy to group the students [...]"

T8: "It is challenging to manage the students in groups [...]"

T4: "I allow students to select their group members [...] I do a group discussion after the end of each session of my lecture [...]"



Implementation Confusion

Many educators experienced confusion due to unsupportive colleagues or negative attitudes from peers. This discouragement reduced their motivation to apply CL in their classrooms.

T3: "I do not see my co-teachers using CL strategies in their classes [...]."

T4: "Whenever I have used any group activity, other teachers will be observing as if I am not teaching at all [...] and they keep enquiring to students about what I was doing in the class [...] they feel I am giving burden to students and not teaching them [.....] I have stopped teaching using any innovative strategies in the class [..]."

T7: "I have tried initially using CL strategies in the class and the responses from students were good [...] but other teachers felt I was collecting lecture notes from students instead of preparing them myself...it hurt me a lot [...]."

Learner Challenges

Attitude

Teachers highlighted learners' attitudes as a key factor influencing the success of CL. While many students enjoy interactive sessions, some are reluctant to engage fully, which burdens other group members.

T8: "Learners enjoy CL classes [.....], and it is not difficult for them to initiate classroom discussion [...], but all learners are not responsible for their work [.....] it burdens other group members and they lose motivation [...]."

T3: "Learners are not serious about the tasks given [...] They are reluctant to cooperate and often absent during sessions, which is a tremendous setback [...] because I could not finish sessions as planned."

T8: "Learners speak different languages, and some are not fluent in English, so they shy away from active participation [.....]."

Prior Exposure to Active Learning

The learners' prior exposure to traditional lecture-based instruction significantly influenced their engagement with CL. Students accustomed only to lectures struggled with active participation, peer assessment, and group collaboration.

T4: "Students are used only to the lecture method of teaching, and they expect teachers to re-teach the lesson even after the same topic is learned through CL sessions [...] Some students complain the teacher is overburdening them with additional assignments [...]."

T3: "Students are not submitting their learning sheets and peer assessment forms as they feel they did not earn any additional marks [.....]."

T3: "CL leads to group conflicts as some students are dominant, and others remain quiet [.....]; students who are not fluent in English are mocked by others when taking longer to express their ideas [.....]."

T1: "Some students prefer individual work, feel CL sessions are a waste of time, and demand a lecture teaching method [.....]."

Curriculum Challenges

Burden of Syllabus

The structure of teacher education curricula, particularly the semester system, was reported as overburdened with content, leaving limited time for CL activities.

T1: "Pre-service teacher education in India is overloaded [.....] students are burdened with theory and other activities in the semester system [...]."

T5: "I am not getting enough time to prepare for CL classes, so I use only the lecture



method

[.....].”

T6: “There is no time to practice CL strategies in the classroom [....].”

Too Much Focus on Marks

The examination-oriented curriculum emphasizes grades over learning processes, discouraging students from engaging in CL activities that do not contribute directly to marks.

T4: “The entire programme is credit-based and exam-oriented [....] so much importance is given to final grades [.....] students are reluctant to take up activities that have no provision for marks [.....].”

T8: “Students expect the teacher to complete the syllabus and provide them with notes [....] They do not value peer-prepared notes because they fear CL classes are inadequate to master the concepts [.....].”

Administrative Challenges

Rigid Classroom Furniture and Inadequate Learning Materials

Teachers reported infrastructural limitations, including fixed seating and overcrowded classrooms, as barriers to implementing CL effectively.

T5: “The classroom furniture does not support CL strategies [....] In our college, there are 100 students, and there is no space for group discussion [....] grouping students takes more than 15 minutes [....].”

T3: “There are no materials or proper lesson plans to refer to for the practical implementation of CL strategies [.....].”

Indifference towards Active Learning

Administrators often prioritized syllabus completion and student grades over active learning initiatives, which limited teacher motivation to implement CL.

T6: “Our management focuses on completing the syllabus, and they are not bothered to assist teachers in implementing strategies like CL [....].”

T7: “For administrators, the lecture method is the only effective teaching strategy [....] My principal insists I teach all concepts and provide lesson notes [....] High competition among colleges discourages risks [....].”

Lack of Professional Development Programmes

Teachers highlighted the absence of workshops, demo lessons, or continuous professional development as a key factor hindering effective CL implementation.

T5: “I feel there is a need for workshops and demo lessons in teacher education colleges as professional development [....] I want to master CL strategies and need administrative support [.....].”

T1: “Our college is private and never conducts professional development programmes for teacher educators [....] There is no unity between private, aided, and government colleges [.....] Management neglects teacher professional growth.”

T3: “Management never follows up on programme implementation, and I am not motivated to conduct CL sessions [.....].”

Here’s a **concise, paraphrased version** of your Discussion and Conclusion sections while keeping the original meaning intact, written in formal academic style:

Discussion

The findings indicate that while teacher educators acknowledge the value of cooperative learning (CL), they predominantly rely on the lecture method due to perceived implementation challenges (Baloche & Brody, 2017; Han et al., 2015; Khalaily, 2019).



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These perceived challenges vary across individuals and contexts and serve as barriers—real or anticipated—to effective CL implementation.

The study revealed that teacher educators' perceived challenges (PCCLI) are influenced by gender. Female educators are generally more likely to use CL and foster supportive classroom environments, potentially affecting how pre-service teachers respond to feedback and collaboration. However, gender effects are context-dependent and influenced by cultural, societal, and institutional norms (Arrona-Palacios et al., 2020; Aslan et al., 2018).

Age also emerged as a factor, with older teacher educators demonstrating more resistance to CL due to limited exposure to its strategies during their own training. Senior educators' attitudes can shape the broader teaching culture, potentially discouraging younger instructors from experimenting with CL methods (Saborit et al., 2016).

Interestingly, teaching experience did not significantly affect CL implementation. Experienced teachers may adhere to routine lecture-based methods, while less experienced educators, although more open to innovation, may lack the knowledge or classroom management skills required for effective CL (Beiki et al., 2020; Hung, 2019; Saborit et al., 2016). Correlational analysis confirmed that age and years of teaching experience alone are insufficient to predict teachers' readiness to apply CL; awareness of its methodology and purpose is more critical (Saborit et al., 2016).

Teacher-related challenges largely stem from limited practical training in CL. Without hands-on experience, educators struggle with classroom management, group dynamics, and assessment of collaborative activities (Beiki et al., 2020; Moges, 2019; Duran et al., 2019). Learner-related challenges arise from students' prior exposure to passive learning, resistance to group work, language barriers, and cultural norms that discourage collaboration (Asino & Pulay, 2019; Ghaith, 2018; Nguyen-Phuong-Mai, 2019).

Curriculum constraints, including an overemphasis on content coverage and examination-oriented grading, further hinder CL integration (Kimmelmann & Lang, 2019). Infrastructure issues, such as overcrowded classrooms and rigid furniture, also limit the feasibility of small-group activities (Ghaith, 2018; Yang et al., 2021). Administrative barriers, including lack of professional development, limited autonomy, and low institutional support, exacerbate these challenges (Moges, 2019; Li et al., 2022). Additionally, negative perceptions of CL among colleagues can discourage teachers from implementing innovative strategies, reinforcing reliance on traditional lecture methods (Keramati & Gillies, 2021; Niemi, 2021). Despite these obstacles, studies suggest that willingness to adopt CL can enhance teacher and student outcomes, fostering accountability, autonomy, and active engagement in learning (Baloche & Brody, 2017; Ferguson-Patrick, 2020).

Conclusions and Implications

The study concludes that while teacher educators value CL, its practical implementation is limited due to multiple perceived challenges. The survey indicated that the overall PCCLI is high (63%), with female educators reporting slightly higher perceived challenges. Age differences affect perceived challenges, whereas years of teaching experience do not. Correlational analysis confirmed no significant relationship between age or teaching experience and PCCLI, although a positive trend suggests further research is warranted.

Thematic analysis of semi-structured interviews highlighted key obstacles to CL, including teacher knowledge and beliefs, classroom management, learner attitudes and prior experience, curriculum overload, administrative indifference, and insufficient



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professional development. These barriers hinder CL adoption, despite its potential to enhance pre-service teachers' accountability, autonomy, and collaborative skills.

The researchers recommend that teacher educators move beyond the lecture method to integrate CL meaningfully into teacher education programs. Policymakers, administrators, and educators should receive support and motivation to adopt CL strategies as a standard part of training, while future studies should involve larger samples across diverse educational settings to develop strategies for overcoming these implementation challenges.

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