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Primary School Teachers' Perceptions of Peer-Assisted Learning

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ABSTRACT

This research aims to understand primary school teachers' perceptions of peer-assisted learning. Accordingly, the study seeks to understand how primary school teachers perceive peer-assisted learning, investigate their methods for planning peer-assisted learning activities, and assess the extent to which they integrate peer-assisted learning into their teaching practices. A qualitative research design was employed in this study. Data were collected through semi-structured interviews. 36 primary teachers participated in the research. The findings revealed that the teachers perceive peer-assisted learning as a means to help students understand challenging concepts and overcome difficulties. The teachers expressed a strong inclination toward encouraging students to provide support to their peers through peer-assisted learning. They highlighted that students enjoy collaborative work and feel satisfied when helping their friends. Additionally, the teachers indicated a preference for implementing peer-assisted learning primarily in Mathematics lessons. Despite its benefits, teachers identified challenges, such as misconceptions spreading, unequal participation, and dominant students overshadowing peers. To address these, they suggested structured implementation with teacher supervision and professional development opportunities to enhance effectiveness. They also emphasized the need for integrating peer-assisted learning across different subjects. In conclusion, while peer-assisted learning contributes significantly to student engagement and academic success, careful planning and teacher guidance are essential for maximizing its benefits.

Keywords: Peer-assisted learning, primary school teachers, qualitative research, content analysis.

Introduction

Constantly evolving political, economic, informational, and technological changes significantly impact educational practices. It is possible for individuals and societies to comprehend the current advancements in the realms of economy, technology, and science on a global scale, and to receive education that enables them to stay abreast of these progressions. This can be achieved through the strategic organization of educational philosophies and policies at the national level (Köse, 2011). In order to keep up with modern developments, today's educational approach aims to raise students as individuals who can apply their knowledge to create new ideas, comprehend events deeply, and think critically. It also emphasizes the development of mental skills such as generalization, independent thinking and problem-solving. Innovative methods that actively involve students in the learning process, such as peer-assisted learning, have gained importance. Peer-assisted learning is a learning method based on social constructivism that emphasizes students being active participants in the learning-teaching process.

Literature Review

Peer-assisted learning involves students of the same or similar age or status working together (Graf, 2016; Hassan et al., 2016; Navalkha et al., 2021; Topping, 2005). Upon closer examination, some researchers describe peer-assisted learning as a process where students of the same age gain knowledge and skills by collaborating with each other (Hassan et al., 2016; Topping, 2005). Additionally, other researchers argue that peer-assisted learning involves both students of the same age and those of different ages (Aktay, 2015; Falchikov, 2001). Although there are various ways to determine who participates in peer-assisted learning or who qualifies as a peer, generally, 'peers' are those who contribute relevant experiences, perspectives, or expertise to the group based on the exchange's theme or objectives (Navalkha et al., 2021). Peer-assisted learning is described as an educational relationship involving students with different levels of knowledge and skills on a subject, where one student acts as an expert and the other as a learner. In peer-assisted learning, students work together in sufficiently small

groups to enable individualized face-to-face interactions. The main criteria for implementing peer-assisted learning are the students' academic and social competencies and their organization into teacher-learner pairs (Topping et al., 2017). Vygotsky's concept of the Zone of Proximal Development is defined as the process in which a child learns about a subject by engaging in interactions with a more skilled or experienced adult or peer (Fawcet & Garton, 2005). This has led to an increased emphasis on the concepts of apprenticeship and peer-assisted learning in education (Pound, 2012). Vygotsky noted that advanced mental structures are developed as a result of social interaction, and that this process is facilitated when students interact with more capable peers in the presence of adults through the Zone of Proximal Development (Latchman, 2000).

In peer-assisted learning, students should actively interact with each other. At the primary school age, students develop an interest in social events, feel the need to be accepted by their peers, and enjoy participating in group activities (Altınkök, 2012).

Peer interaction is a vital source of information for students, enabling them to gain diverse experiences (Gülden, 2013). Unlike traditional teacher-student interactions, peer interactions are more collaborative and less hierarchical. Students assist their peers by explaining concepts, answering questions, and providing guidance while actively engaging in the learning process and contributing to the dialogue (Qi, 2023). Peer-assisted learning supports students in working together, learning from each other, and sharing their knowledge, feelings, and thoughts. In this regard, the present curricula in our country emphasize the aim of developing self-confident individuals who are in harmony with themselves and their society. These individuals should understand the feelings of others, participate in group activities, be helpful, communicate effectively, know their responsibilities, and fulfil necessary tasks (MoNE, 2018). Primary school programs include collaborative activities for students within the scope of activity-based teaching (Yılmaz, 2011), indicating that these student-centered programs support peer-assisted learning.

Researchers have stated that peer-assisted learning improves academic performance. Moreover, socialization experiences with peers are crucial for cognitive development and for developing the academic motivation necessary to engage in academic tasks and succeed in school (Rohrbeck et al., 2003). Similarly, researchers found that peer instruction significantly affects both cognitive and emotional domains, positively developing students' achievement, problem-solving skills, conceptual understanding, learning gains, critical thinking, and creative thinking (Woo et al., 2022). Social interaction with adults and more experienced peers is important in learning (Baş & Beyhan, 2017). Kiarie (2003) emphasizes that peer-assisted learning involves structured and positive interactions between peers, provides opportunities for the development of positive relationships between students, ensures students' active participation in teaching materials, improves academic performance, and thus minimizes students' chances of engaging in destructive behaviors.

Peer-assisted learning is considered as one of the most effective strategies to improve students' learning, increase their motivation, and strengthen their friendships (Sobhanian & Ye, 2016). The literature provides various explanations for its value and effectiveness. For instance, a review of 22 studies by Williams and Reddy (2016) showed that implementing peer-assisted learning significantly improves learning among peer educators. These results suggest that peer-assisted learning supports quality education.

On the other hand, the literature shows that most studies on peer-assisted learning focus on secondary education (Graf, 2016; Tokgöz, 2007), with limited research at the primary level. Therefore, it is significant to obtain detailed information about the application of peer-assisted learning in the primary school learning-teaching process to ensure quality education. Accordingly, this study examines how primary teachers implement peer-assisted learning in practice and their perspectives on its contribution to the learning-teaching process.

Purpose of the Study

Peer-assisted learning has gained importance with the support of active learning of students in primary school programmes. As mentioned above, peer-assisted learning helps students gain skills such as cooperation, teamwork, learning to learn, critical questioning, maintaining friendship relations and supporting their social development alongside academic success. Therefore, defining the extent to which peer-assisted learning is implemented in the teaching-learning process, understanding how primary teachers plan peer-assisted learning, and identifying the challenges they encounter in this process will contribute to the effective implementation of peer-assisted learning. In this context, the study will:

- Assess the extent to which primary school teachers incorporate peer-assisted learning into their teaching practices.
- Analyze the challenges teachers face in implementing peer-assisted learning.
- Explore strategies to support teachers in effectively

integrating peer-assisted learning into their classrooms.

Identifying the extent to which peer-assisted learning is realized in practice and the problems experienced by primary teachers will further support the qualified implementation of this approach. The findings to be obtained in this context will provide important information about the provision of effective learning-teaching processes in student-centred environments in primary school. In this respect, this study aims to understand primary teachers' perceptions of peer-assisted learning.

Accordingly, the research questions are presented as follows:

1. What are primary teachers' perceptions of peer-assisted learning?
2. What is the role of peer-assisted learning in the teaching-learning process?
3. How can teachers be supported to implement peer-assisted learning effectively?

Method

Research Design

This study employs a qualitative research approach, which provides an in-depth exploration of participants' opinions and experiences, often through direct quotations (Patton, 2014). As Patton (2014) highlights, the foundation of qualitative reporting lies in description and quoting, emphasizing the importance of including direct quotes and offering sufficient context to allow readers to engage with participants' thoughts and situations. Unlike quantitative research, which focuses on numerical conclusions, qualitative research seeks to offer a descriptive and realistic depiction of participants' perceptions and experiences (Yıldırım & Şimşek, 2013). In line with this approach, the findings from the interviews with the teachers were carefully interpreted, incorporating direct quotations to ensure depth and authenticity in the analysis.

Participants

Criterion sampling, one of the purposeful sampling methods, was used to select the study group for interviews with primary teachers in this research. Criterion sampling is defined as the study of situations that meet predetermined criteria (Yıldırım & Şimşek, 2013). Detailed information about the primary teachers participating in the study is given below.

It was thought that the primary teachers participating in this study would provide more comprehensive data if they had experience in traditional practices as well as innovative practices in the learning-teaching process. In this direction, the participation of primary teachers with more than 10 years of professional experience was determined as a criterion. This criterion was set to ensure that participants had extensive experience with both traditional and innovative teaching practices, including peer-assisted learning. Teachers were selected from various schools in a province in the Marmara region to capture diverse experiences in implementing peer-assisted learning. The sample was categorized by teaching experience: Eight of the teachers have 10-20 years of experience, 13 of them have 21-30 years of experience and 15 of them have 30 years of experience or more. This approach aimed to provide a robust dataset reflecting primary teachers' perceptions of peer-assisted learning. A total of 36 primary teachers (9 males, 27 females) participated in the interviews.

Data Collection Tool

Semi-structured interviews including open-ended questions were conducted with primary teachers. To construct the interview questions, the relevant literature was first reviewed in detail. A draft interview form was then prepared and submitted for expert review. The experts are qualified in educational sciences and measurement and evaluation. Based on their feedback, the draft was revised and edited. Language adjustments were made to improve clarity and comprehensibility, and the scope of some questions was expanded to obtain more in-depth information. Topic-specific headings were added for systematic structure, and the order of the questions was rearranged to align with the research objectives. These revisions aimed to improve the quality of the interview form and support effective data collection. The interview form consists of demographic information, and open-ended questions as well as the aims of the study.

Data Collection Process

The interviews were conducted individually and face-to-face with the teachers. Prior to the interviews, school administrators and teachers were informed about the research. The interviews were scheduled in terms of time, and locations for both the teachers and the school administration. In order to prevent data loss, a voice-recording device was used during the interviews. To keep the identities of the teachers participating in the study confidential, each teacher was coded by giving a number during the transcription of the interviews. The necessary permissions were obtained and scientific and ethical rules were followed by the researchers.

The ethical process in the study was as follows:

- Ethics committee approval was obtained from the Çanakkale Onsekiz Mart University Social Sciences and Educational Sciences Ethics Committee (Date:

29.03.2017, Number: 2017/09).

- All participants voluntarily participated, without pressure to answer. Before the research began, primary teachers were informed about the research's purpose and interview subject. They were also told they could withdraw at any time, and their statements would remain confidential.
- Before starting the interviews, verbal permission was obtained from the participants for audio recording.
- The research report does not include identifiable personal data. To maintain anonymity, no identifying information (e.g., names, schools, locations) was collected. Participants were given unique codes (e.g., T1, T2, T3) to ensure confidentiality.

Data Analysis

Content analysis was used to analyze the data. Qualitative content analysis involves a process designed to transform raw data into categories or themes based on valid inference and interpretation. This process uses inductive reasoning, with themes and categories emerging from the data through careful examination and continuous comparison by researchers (Zhang & Wildemuth, 2005). Accordingly, qualitative content analysis does not perform counting and has no statistical significance; rather, it reveals important patterns, themes, and categories relevant to a social reality.

Content analysis consists of four stages: coding the data, finding themes, organising the codes and themes, and interpreting the findings (Yıldırım & Şimşek, 2013). In this regard, the data obtained were read and divided into meaningful sections, and codes were determined by both of the authors. In the first stage, open coding was conducted by breaking down the data into meaningful units and assigning descriptive labels. This process was carried out systematically without predefined codes, allowing the data to guide the emergence of categories. The codes were compared for similarities and differences, leading to the formation of broader categories. Then, the data were categorized by considering the similarities and differences between the codes. In line with the categories obtained, two main themes, namely Teachers' Perceptions of Peer-Assisted Learning and The Place of Peer-Assisted Learning in the Teaching-Learning Process, were obtained.

Validity and Reliability of the Study

The literature emphasises that reporting the data in detail and explaining how the researcher reached the results is one of the most important criteria of validity (Merriam, 2013; Yıldırım & Şimşek, 2013). In order to ensure external validity in this study, the method section, research design, development of data collection tools, and data collection and analysis processes were explained in detail. In addition, at the reporting stage of the research, direct quotations were included in the findings section and detailed descriptions were made.

The analysis continued until the findings reached saturation, meaning that no new themes or patterns emerged from the data. This contributed to the internal validity (Merriam, 2013). Moreover, the researchers presented all of the findings directly from the data to increase the internal validity. All interviews in the data collection process were recorded using a voice recorder to prevent data loss, and the raw data and coding obtained during the data collection process were kept by the researcher. The researchers paid attention to being objective at all stages of the research. Thus, the internal and external reliability of the research is considered to be ensured.

Results

As a result of the interviews with primary teachers, the findings were presented under two main themes: Teachers' Perceptions of Peer-Assisted Learning and the Place of Peer-Assisted Learning in the Learning-Teaching Process.

Teachers' Perceptions of Peer-Assisted Learning

In this theme, four categories were found: Defining Peer-Assisted Learning, Benefits of Peer-Assisted Learning, Limitations of Peer-Assisted Learning and Recommendations for Effective Use.

Defining Peer-Assisted Learning

The findings show that almost half of the teachers explained peer-assisted learning as the learning of children in the same age group:

"It evokes learning with peers, meaning that peers receive education at the same time and in the same place." (Teacher 7)

"What comes to my mind when I think of peer-assisted learning? Students belonging to the same age group being in the same environment, not different age groups" (Teacher 27)

"This term involves students engaging in learning activities with their peers and learning from one another" (Teacher 6)

The above explanations show that teachers explained peer-assisted learning as students from the same age group coming together and learning at the same place and time.

For example, Teachers 6 and 7 defined peer-assisted learning as children learning together with their peers. Additionally, Teacher 7 emphasized the aspect of education taking place simultaneously and in the same location. Teacher 27 explained peer-assisted learning as students of the same age group learning in the same environment.

Some of the teachers drew attention to the concepts of sharing and interaction in peer-assisted learning and defined peer-assisted learning as influencing, being influenced, sharing and helping each other:

"Peer-assisted, within the classroom, students positively support each other in lessons, topics, in terms of helping each other in the lessons, and areas where they might struggle, by helping and collaborating with one another." (Teacher 29)

"When we talk about peer-assisted learning, it means that students are influenced by each other, learn from each other, and it is a method that we frequently use in the classroom, so students learn more from each other"(Teacher 24)

Teacher 29 explained peer-assisted learning as students helping and supporting each other in lessons. Similarly, Teacher 24 stated that in peer-assisted learning, students are influenced by and learn from each other. This situation is referred to as reciprocal peer-assisted learning in the literature.

Besides some teachers emphasise cross-peer-assisted learning when explaining peer-assisted learning:

"When I think of peer-assisted learning, I think of children with a slightly higher level or better individual development help students who are a little behind or less advanced than themselves." (Teacher 17)

"In peer-assisted learning, I understand that students who learn at a slower pace are assisted by students who can grasp and learn faster, understand the lesson, objectives or subject."(Teacher 34)

The above teachers explained peer-assisted learning as students who have a higher level of learning, helping their peers and supporting them to understand the subject. These explanations show that the teachers' explanations point to cross peer-assisted learning.

The above explanations of the teachers show that they explained peer-assisted learning with different concepts such as helping, sharing and interaction. While a few teachers explained it as children of the same age receiving education and training in the same place based on the word peer, some of them drew attention to the student level and expressed it as one student helping and supporting another student. These explanations also show that the teachers defined different types of peer-assisted learning as classroom, reciprocal and cross peer-assisted learning in support of the explanations in the literature.

Benefits of Peer-Assisted Learning

In this category, the primary teachers explained the benefits of peer-assisted learning for students and teachers. The majority of the teachers stated that they found peer-assisted learning significant and used it from time to time. Accordingly, some of them stated that peer-assisted learning provides benefits such as relieving the teacher's burden, saving time, and providing a positive classroom environment:

"Of course, it is also beneficial for the teacher, the children who understand the lesson do it quickly, and the children who solve it quickly get bored after a while, this disrupts the order of the lesson, and we have to explain it to the children who do not understand it for the second and third time, the child who understands the subject gets bored a lot, and you can lead them in that way, you know, it does not create unnecessary noise, distraction, boredom, I think it is beneficial in that respect." (Teacher 33)

From the excerpts above, it is seen that they think that peer-assisted learning supports them in many aspects. Teacher 33 emphasised that peer-assisted learning was useful in overcoming the problem by stating that students who understood more quickly in the lesson were bored and unnecessary noise and distraction were encountered. Teacher 33's explanations show that peer-assisted learning actually contributes to classroom management and creating a positive classroom environment.

Most of the teachers stated that peer-assisted learning supports students' social development:

"In any case, without peer-assisted learning, social development would be difficult, other individual education prevents socialisation, peer-assisted education or education involving friends brings more socialisation and activation, for example, students play ball with their peers after classes, this brings socialisation, they go to a picnic, they take them, you take them as a school, as a class, then they go to a certain place, they talk, sit, chat, in the meantime they evaluate the lessons, I think interaction would be very good... There is mutual interaction among peers, that is, they are interested in each other or they see each other, they behave, the friendship relations of the majority of them are progressing positively." (Teacher 9)

"First of all, helping each other, socialising, they are socially influenced by each other, as I just said, they are influenced by their behaviour, their writing, everything, what else could it be? Again, they cooperate, first, they do what they

know, then they continue in cooperation, again, it is important in terms of helping and socialisation, you know, if you consider that today there are not even neighbourly relations, it will affect their future lives, as long as they help, they will be able to ask for help, it develops this, doesn't it?" (Teacher 21)

"They find opportunities to freely engage in various activities related to their talents and interests, whether it's music, sports, visual arts, and express themselves in that manner. They can explore themselves by immersing themselves in different activities, and discovering their interests and themselves. Thus, peer education fosters personality development, promoting healthy growth. Essentially, it not only influences academic success but also positively impacts personality development." (Teacher 25)

Teacher 9 emphasized that it increased children's socialisation, they would interact better with their friends, they would be able to do activities together and thus their friendship relations would improve. Similarly, Teacher 21 emphasised that students socialise and cooperate within the scope of peer-assisted learning and suggested that they can develop the ability to ask for help as long as they help. Teacher 25 stated that peer-supported learning not only fosters academic success for students but also contributes to personality development. They expressed that peer-supported learning is beneficial for children to express themselves, discover their interests, and develop in various areas.

Almost all of the teachers emphasised that students' feelings of cooperation increased during the activities they carried out peer-assisted learning:

"Children learn skills and cooperation, this is a very important thing, they learn to help each other, to help each other, which is a very important thing, children at that age are generally a little more selfish, they are more self-centred, I think they experience those feelings of helping the other person, showing mercy, they experience those feelings, I think it improves cooperation and interaction among students and enhances their social skills." (Teacher 4)

"Helping each other was developing with the children, for example, he says he couldn't understand, I take a look, he goes to him and tells him, look, you will do this like this, you will be like this at the end of these, peer learning strengthens the cooperation, conversation, solidarity in the classroom, as I said, I gave tasks to the children, the children are working with each other during the break time; now I'm doing it like this, here, look, you should say this line like this here, they work together, they produce a product." (Teacher 20)

They emphasized that peer-assisted learning activities enabled children to develop mutual support skills and experience the joy of helping others. Teacher 4 stated that primary school students were generally selfish and that their feelings of helping and interaction increased thanks to peer-assisted learning. Teacher 20 emphasised that peer-assisted learning strengthened cooperation, communication and solidarity in the classroom, and that when students were given tasks, they helped each other and created something together.

Most of the teachers also stated that peer-assisted learning improves students' self-confidence:

"Well, in friendship, when they learn something from each other, the child who teaches the other children, for example, develops self-confidence, develops self-confidence, then either it was useful to someone and I learnt something there, so it can be." (Teacher 14)

"Yes, it naturally evolves in every class; you know, those children with more of a leadership spirit can use it to assist others. They can further this topic. What happens is, you know, if a child helps their friend in one lesson, that child can then take on that role and ask questions to their friends in other lessons or provide examples, having realized it themselves. They could provide examples and be more helpful to their friends." (Teacher 3)

As can be understood from the explanations of Teacher 14, children stated that their self-confidence increased when they helped their friends. Teacher 3 mentioned that through peer-assisted learning, students discover their leadership spirit, thus continuing these behaviors in other subjects and helping their peers.

Limitations of Peer-Assisted Learning

The findings show that while the teachers emphasized the importance and benefits of peer-assisted learning, they also mentioned its limitations. Almost half of the teachers stated that mislearning may occur during peer-assisted learning:

"In a negative sense, there may be something like this, I mean, the risk may be this; if it goes out of control, peer assisted learning may transfer the negative things that the child wants to transfer, peer assisted learning, may learn the wrong thing, that is also a possibility." (Teacher 6)

"You need to observe the child explaining without intervening immediately. They might explain it incorrectly, which could be a problem. However, when this approach is applied consistently in class, the control remains with you. If incorrect information is given, you can intervene. This system is used in all lessons, so it's important to monitor how the student explains and teaches their peers. Even one

wrong word can cause harm, and you may not notice, leading the child to learn it incorrectly." (Teacher 5)

The teachers stated that children can misinform each other. Teacher 6 stated that students could learn wrong information from each other. Teacher 5 expressed the need to control how children explain things to each other, stating that peer-assisted learning cannot be implemented in crowded classrooms. However, most of the teachers stated that in order to prevent mislearning, the studies related to peer-assisted learning should be controlled and monitored by themselves:

"... you know, children can sometimes affect each other in a negative way, maybe in one subject, but I think it would be useful to have them under supervision..." (Teacher 32)

"Well, of course, it needs to be controlled, just as the student learns the wrong behaviours, of course it needs to be controlled." (Teacher 24)

The teachers' explanations draw attention to the importance of teacher supervision and control in peer-assisted learning. Teachers emphasised that otherwise, students would not be able to achieve the desired outcomes and would acquire wrong information.

Some teachers, on the other hand, stated that they encountered children's negative behaviours such as oppressing, mocking, belittling, hurting, and being harsh in the activities carried out together within the peer-assisted learning processs or when they assigned students to help their friends. Teacher 21 explains this situation as follows:

"Sometimes it becomes a topic of mockery, like 'Oh, you don't know anything either.' But I tell them, 'You are a whole, a family. The success or failure of the class affects all of us. We must support each other and fill in the gaps, just like in a family.' The downside is that children at this age can be very cruel, and there's a lot of teasing. I give examples of scientists and say, 'Look, they were mocked too, but they made discoveries. How do you know your friend won't be the next Edison?' Then they start to think." (Teacher 21)

They stated that students would engage in negative behaviours during peer-assisted learning. For example, Teacher 21 stated that elementary school children can offend other students by making fun of them. Teacher 21 stated that in order to prevent these negative behaviours, she emphasised the importance of cooperation and the need for students to support each other in the classroom and thus prevent problems.

Some of the teachers also mentioned the negativities that may arise during peer-assisted learning as follows:

"I can't keep up with the time, we have a shortage of time, our curricula are rigid, since the learning outcomes are shared according to the time periods, this requires a process and I have to allocate a separate time for this, this time I exceed the duration of the lesson according to the curriculum, this causes a shortage of time for me." (Teacher 34)

From the above explanations, it is seen that the teachers stated that they encountered problems in terms of time shortage, negative effects of some students on the study and physical characteristics of the classroom during peer-assisted learning. For example, Teacher 34 stated that the activities prepared within the scope of peer-assisted learning took time and this situation caused problems in terms of completing the programme.

Recommendations for Effective Use

Most of the teachers suggested that seminars or in-service training should be provided on peer-supported learning. They indicated that introducing peer-supported learning and raising awareness among teachers about it would enable them to conduct more effective work.

"*Yes, I think it would be different to do this after taking a seminar, training, etc., there is no practice or seminar for teachers about this, you are the only one who has come to us about this issue so far, I think all primary school teachers apply this, I mean, because teachers act improvisationally on this issue, well, it is necessary to get training, I mean, I think it is necessary to do this job more consciously, I think it is an important issue, I think teachers should be informed."(Teacher 4)*

"I honestly think that I am doing it, well, even among my current friends, I believe they might be doing it too if my friends are using it and it's a system that is not being used, then it should be explained, it should be explained by experts that I think the goodness of such a thing, and its potential benefits, should be explained through organized events such as discussions or seminars, I mean, if it is not being used effectively, I think it is a system that cannot be ignored." (Teacher 35)

The teachers stated that they should receive training to use peer-assisted learning effectively. For example, Teacher 4 emphasized that peer-assisted learning would be more beneficial when used in a conscious and planned way. Teacher 35 stated that she and her colleagues use peer-assisted learning; peer-assisted learning is important and in order to use it effectively, training should be given by experts on what kind of benefits peer-assisted learning can give in the learning-teaching process.

Also, Teacher 20 and Teacher 32 underlined the lack of peer-assisted learning in the programmes:

"… in order to strengthen children's solidarity, to make learning more enjoyable, in these programs, for example, in the syllabuses, we can open something called peer learning more clearly, for example, in the syllabuses, and different alternatives can be offered, so you can do it in this way, you can do it through drama, and in our guidebooks, for example, this peer learning can be put more intensively." (Teacher 20)

"Yes, I've seen the word "peer" in criteria, grading, or peer assessment. If we do group work, do the books say it's suitable for this? Should I mention it? I don't come across the word "peer" much, but I'd like to benefit from it if it's in the programs. Moving away from teacher-centered teaching could help, guide students to learn on their own. Not every teacher teaches everything; they are a guide, opening the door for students. I think there could be more room for these approaches." (Teacher 32)

Teacher 20 stated that peer-assisted learning could be emphasized more intensively in the guidebooks and different alternatives could be offered to teachers for the implementation of peer-assisted learning. Teacher 32 stated that she heard the word peer as peer assessment in measurement and evaluation and that she would use it in her class if it is included in the programmes and thus, student-centred learning can be the main focus in education.

The Place of Peer-Assisted Learning in the Teaching-Learning Process

This theme was divided into three categories: the role of the teacher, the contextual usage of peer-assisted learning and the role of the student.

The Role of the Teacher

Almost all of the teachers stated that they did not plan the use of peer-assisted learning and that the activities they carried out within peer-assisted learning developed spontaneously when they needed to improvise:

"I mean, it usually emerges at that moment, that is, out of need, we intervene in that way because we see at that moment who needs what and how, what they can and cannot do, and we enable them to support each other. (Teacher 26)

"No, meticulously planning everything doesn't always work, why? Because you're a teacher, and there's a group of students in front of you. Depending on how things unfold, the teacher really needs to be creative, it's somewhat related to the teacher's character. The teacher should be creative, alert, attentive, and a good observer. If the teacher's skills develop well, they will improvise, applying and developing the most suitable methods instantly, and this is crucial. I highly value the teacher's creativity." (Teacher 13)

Teacher 26 and Teacher 13 stated that they did not plan peer-assisted learning. For example, Teacher 26 emphasized that she applied the activities of peer-assisted learning when she saw the students' deficiencies and felt the need to use them. Also, she stated that she saw whether the students learnt or not, what they could do, what they could not do during the lesson, activity, and study; in this case, she stated that she intervened and ensured that the students assisted each other. Teacher 13 emphasized that even though lessons may be planned, the plan can change, indicating the need to adapt to the needs and situations of the students. Additionally, Teacher 13 stated the importance of teacher creativity and its significant role in using appropriate methods.

The teachers–mentioned that they changed the seating arrangement of the students while implementing peer-assisted learning:

"I change the place of the child so that the child can be affected, for example, when you put a child who cannot write well next to a child who writes well, it affects him/her. Apart from the seating plan, what I pay attention to is that, as I just said, the good students who comprehend a little later support each other when they are next to each other."(Teacher 21)

"Yes, from their friends, I mean, now, when I seat the children in the classroom, I try to seat them as well, for example, not the good child with the good child, the bad child with the bad child, but I always move them around like this so that there is nothing between them, so that they take the good aspects from each other." (Teacher 23)

The teachers stated that they changed the seating arrangements of the students during peer-assisted learning. For example, Teacher 21 said that she changed the seating arrangement of the students to bring them together while implementing peer-assisted learning in the classroom. Likewise, Teacher 23 also stated that she changed the seating arrangement of students at different levels in order to support each other and gain each other's strengths.

The findings indicated that the teachers assumed important roles in issues such as student organisation, seating arrangement, and use of materials during the implementations within the scope of peer-assisted learning.

Contextual Usage of Peer-Assisted Learning

Most of the teachers stated that they used peer-assisted learning in different lessons:

"Well, of course, it is necessary, it is indispensable, it is a part of education, and for this reason, we already apply it in the classroom, in the form of group work, cluster work, both in science lessons, in social studies lessons, from time to time in Turkish lessons, so it is a method that we frequently apply." (Teacher 24)

"In particular, the areas I have applied in this field are in the field of reading and writing, for example, students who cannot learn to read and write can teach and help students who have learnt to read and write. It can help in reading, in the repetition of syllables or in such things that can be slightly new to reading, it can help in those readings, it can support in this regard. In other words, I would like to say that improvisation happens almost spontaneously in all lessons. I use it mostly in reading and writing."(Teacher 2)

Teacher 24 stated that she used peer-assisted learning in Science, Social Studies and Turkish lessons and considered it as a part of education and she frequently applied it as group or cluster work in all lessons. Teacher 2, on the other hand, stated that improvisation can occur in almost all lessons and emphasized that she mostly used it in teaching reading and writing. He stated that students supported and helped their friends in reading and repeating syllables.

In addition, most of the teachers stated that they used peer-assisted learning mostly in Mathematics lessons:

"In maths, for example, they can check each other's operations in the problems we do; for example, my teacher put minus instead of plus or subtracted instead of adding. In this way, they can distinguish between what is given and what is required in the problem with the given and the required, and in Life Science, they are always doing the activities together, one of them can act as a guide for the other and act as a control when they make a mistake." (Teacher 17)

"I use it mostly in mathematics, let's say we are going to draw a triangle in mathematics, how we are going to place it in the squares, I explain this on the board, then I say to draw it, I look at the children, I look at which ones have drawn it exactly, I assign them to those who cannot draw it, I say how did you draw it, go and tell your friend, he goes, he shows his friend how many squares he left, how he drew it, how he used the ruler, etc., in the same way, you look at the other one and see that the other one has done it too, so it accelerates us in this way."(Teacher 22)

Teacher 17 stated that the students checked each other's operations in the problems they solved, that they could distinguish the problems together, and that they did the activities together in the Life Science lesson and the students guided each other. Teacher 22 stated that she used it mostly in the Mathematics lesson and explained that she assigned students to help each other with the points that were not understood and thus accelerated the learning process.

The Role of the Student

Most of the teachers stated that primary school students have a higher sense of cooperation and are willing to help each other and support their friends:

"Of course, if the teacher manages them in this way, starting from the first grade, they support each other, they complement each other, they help each other or they explain, it's very nice for example" (Teacher 15)

"In fact, there was peer-assisted learning in the classroom yesterday. Without me giving any instructions, the children tried to help each other, learn fractions and addition, and subtraction. So, the children are helping each other in this way, trying to teach each other, even without me prompting them." (Teacher 18)

The teachers stated that students were very willing to help each other within the process of peer-assisted learning. For example, Teacher 15 stated that students begin supporting each other from the first grade onwards. Teacher 18 expressed that even though she did not direct students for peer-assisted learning, children try to help and teach each other in the classroom.

Some of the teachers stated that students guided each other in activities and studies and gave warnings to their friends:

"*Again in physical education classes, it's like that, let's say you are playing a game of handkerchief grab, one of your students is not very good, but the good student is trying to teach him/her tactics, like, look, you have to control the other student very well, you have to look at his/her hand gestures, and so on." (Teacher 2)*

"For example, a student with lower manual dexterity can do the drawing we give very late, for example, but the other one, who is more skilful, can do his own activity in a much shorter time and shows him how to do it, how to draw it more, how to place the things on it." (Teacher 22)

Teacher 2 stated that in the Physical Education lesson, the student realised peer-assisted learning by giving tactics to his/her friend about the game. Teacher 22 stated that in the Visual Arts lesson, students who finished their work quickly helped students with low manual dexterity in drawing.

Discussion

The data analysis revealed that the teachers could not define peer-assisted learning comprehensively, but they tried to explain different types of peer-assisted learning,

namely reciprocal and cross-peer-assisted learning. Cross-peer-assisted learning is defined as students in different grades and at different levels teaching younger students (Robinson et al., 2005). In addition, reciprocal peer-assisted learning involves students at the same level fulfilling both teacher and student roles (Cheng & Ku, 2009). The literature generally defines peer-assisted learning as the mutual acquisition of knowledge and skills by students of the same age and status during their studies together (Hassan et al., 2016; Topping, 2005). Some researchers describe it as a teaching tool in which students of the same or different age and level groups help and support one another (Falchikov, 2001), while others describe it as a teaching arrangement in which the teacher pairs two students as a teacher-learner to encourage the learning of academic skills or subject matter (Kiarie, 2003).

The findings showed that the teachers perceived peer-assisted learning as students taking on the role of teacher to instruct their peers; therefore, they implemented peer-assisted learning in a teacher-learner format. Some of the teachers emphasized interaction, sharing and mutual learning. These explanations indicate that primary teachers defined peer-assisted learning in a limited way by addressing it from some aspects.

The findings also showed that the teachers thought that using peer-assisted learning is important and that it provides benefits to students in the learning-teaching process. These explanations support Vygotsky's view that peer cooperation and verbal communication will help students to be active participants and see different perspectives, thus supporting their cognitive development (Zambrano & Gisbert, 2015).

Peer-assisted learning supports the increase in students' self-confidence as it encourages students to communicate with each other and thus improves their basic language skills (Yurt & Aktaş, 2016). Similarly, most of the teachers emphasized that primary school students have a higher sense of cooperation and are willing to help each other and support their friends. They stated that peer-assisted learning supports students' social development and improves students' self-confidence, and that children learn to help each other through the work they do together.

In addition, although it was revealed that the teachers explained the importance and benefits of peer-assisted learning and the related activities, it was found that they drew attention to some limitations of peer-assisted learning. Teachers drew attention to the fact that students may transfer wrong information to each other, especially in primary school, and therefore, wrong learning may occur. They stated that one of the most important limitations of peer-assisted learning is that the student who knows the subject has superiority over the other student and that children compare each other with negative behaviours such as crushing, mocking, belittling, hurting, being harsh and this situation may lead to low self-confidence in the other student. In this regard, they stated that they intervened in the situation, that the studies carried out within the scope of peer-assisted learning should be controlled and that they should be monitored and followed up by the teacher. It is understood that they emphasized the importance of feedback correction and teacher guidance in peer-assisted learning.

The analysis also revealed that the teachers implemented peer-assisted learning improvisationally, without pre-planning. Activities emerged during lessons when the teachers identified student needs or deficiencies. The teachers implemented peer-assisted learning as needed, rather than through planning. However, the literature highlights the importance of planning such as defining content and objectives, identifying participants and their roles, choosing the right time and place, providing materials, and evaluating the process when planning peer-assisted learning (Thurston et al., 2007). For example, Topping et al., (2004) evaluated the cognitive and affective impacts of cross-age peer tutoring in primary school science using the "paired science" program. Conducted over eight weeks with 30-minute sessions twice a week, the study involved 7 to 8-year-old tutees and 8 to 9-year-old tutors. Compared to the control group, the experimental group showed significant cognitive gains in scientific concepts and terminology, especially among tutees, with effect sizes greater than one. Attitudes toward the program were generally positive among both students and teachers, highlighting cross-age peer tutoring as an effective method to support understanding and engagement in science.

The findings revealed that most of the teachers reported using peer-assisted learning through strategies such as one student helping another with challenging subjects, one-to-one explanation, and peer teaching. It is understood that some teachers drew attention to the level difference between students and brought students at different levels together. Research examining the relationship between peer social interaction and cognitive development is generally based on Vygotsky's Zone of Proximal Development Theory. According to Vygotsky's theory, the most productive experience in a child's education is the cooperation with peers who are more talented than him/her, and children can influence each other's learning in peer-interactive situations (Fawcett & Garton, 2005; Zambrano & Gisbert, 2015).

Mlawski (2021) examines how first-grade students utilize peer learning (PL) mechanisms and behaviors during a learning task, highlighting that young children naturally influence and motivate each other. The findings emphasize peer learning's potential to enhance collaborative behaviors, suggesting practical strategies for educators to cultivate peer interaction skills in structured classroom settings.

Although teachers used peer-assisted learning in different courses; it shows that they mostly use it in Mathematics courses. The literature shows that the studies in our country are mostly carried out at the secondary and high school levels (Akay, 2011; Yardım, 2009; Demirel, 2013). However, there is no study on the use of peer-assisted learning in mathematics at the primary school level in Turkey. International literature supports the findings of this study and emphasises that peer-assisted learning contributes to mathematics achievement. For example, Topping et al. (2003) applied cross-peer-assisted learning in mathematics lessons for 7-11 year-old students. They emphasized that peer-assisted learning has an important place in the success of students; especially in children with low achievement at risk, it helps to acquire gains in mathematics, self-concept and social interactions. Robinson et al. (2005) stated that cross-peer-assisted learning increased the academic achievement of primary and secondary school children in mathematics. Tella (2013) evaluated the effects of peer tutoring and explicit instructional strategies on primary school students' mathematics achievement and attitudes. The findings showed that peer tutoring had a significant positive impact on students' achievement and attitudes in mathematics.

Teachers used peer-assisted learning in teaching primary literacy. The teachers stated that they observed that students helped each other in writing letters and corrected each other's mistakes. Similarly, Aktay (2015) observed interactions based on peer teaching in the first-grade students' first reading and writing lesson. Accordingly, he emphasized that peer collaboration among students emerged mostly in the form of cooperation and increased communication between them. Türkmenoğlu and Baştuğ (2017) stated that peer instruction had a positive effect on the development of fluent reading and reading comprehension skills of primary school fourth-grade students with reading difficulties. Similarly, Blanch et al. (2013) demonstrated the effectiveness of peer-assisted learning in enhancing reading comprehension skills among primary school students, showing that all participating students improved their abilities in this area.

Additionally, most teachers expressed a desire for in-service or online training to use peer-assisted learning more effectively. Providing such training would raise their awareness and help them implement it successfully. Creating suitable classroom environments and incorporating peer-assisted learning activities and examples in textbooks and resource books would also support its effective implementation. In the literature, studies developing paired reading programs at the elementary level have been encountered (Topping, 1996; Blanch et al., 2013; Zambrano and Gisbert, 2015). For example, in the study by Zambrano and Gisbert (2015), the program was effective in improving reading, comprehension, and fluency.

Conclusion and Recommendations

The findings of this study showed that teachers perceive peer-assisted learning as an important learning method. While some highlighted interaction, sharing, and mutual learning, they saw it as a teacher-student dynamic where students teach their peers. However, the method has limitations including the risk of negative behaviors among students and the potential of incorrect learning.

Teachers generally implement peer-assisted learning improvisationally, without sufficient planning, which can lead to inconsistencies in effectiveness. Concerns about negative peer interactions highlighted the need for structured guidance from educators.

The teachers who participated in the study stated that they often use peer-assisted learning in mathematics lessons and that these collaborations are generally limited to problem-solving and basic arithmetic, emerging improvisationally. To enable students to experience peer-assisted learning more effectively, activity examples and plans should be developed for other lessons.

To address these challenges, it is important to integrate structured professional development programs focused on peer-assisted learning strategies into teacher training. Such training would provide educators with effective methodologies to facilitate positive peer interactions and create supportive learning environments.

Schools should also embed peer-assisted learning into the curriculum by providing resources that promote collaboration, creating conducive classroom environments, and implementing feedback mechanisms to evaluate its effectiveness. By fostering an inclusive atmosphere, schools can maximize the benefits of peer-assisted learning and contribute to the academic and social development of primary school students.

In conclusion, while peer-assisted learning has the potential to enhance academic skills and social interactions, addressing its challenges and limitations is crucial for successful implementation. Providing adequate training and structured guidance will enable educators to

create a more effective educational experience and support students' holistic development.

Additionally, the findings of this research are based on interviews with teachers. Observing how classroom teachers implement peer-assisted learning methods will also provide valuable insights into classroom practices, highlighting the similarities and differences between teachers' perspectives on this approach and their actual implementations. Schools should also embed peer-assisted learning into the curriculum by developing structured lesson plans and activity guides that outline specific peer-assisted learning techniques for different subjects. This could include peer tutoring frameworks, cooperative group tasks, and structured peer feedback sessions to ensure that students engage in meaningful interactions. Providing teacher handbooks with best practices and example activities can also support educators in integrating peer-assisted learning more effectively across various disciplines. Additionally, implementing feedback mechanisms is essential to evaluate peer-assisted learning effectiveness. Teachers can use structured observation checklists, student self-assessments, and peer evaluation forms to monitor interactions and outcomes. By fostering an inclusive atmosphere, schools can maximize the benefits of peer-assisted learning and contribute to the academic and social development of primary school students.

Limitations of the Research

One limitation of this research is related to the audio recording of interviews with teachers. Some teachers felt uncomfortable prior to the interview due to the recording. This discomfort may have led them to provide examples and explanations that they believed aligned with the researcher's expectations. To mitigate this effect, the teachers were assured at the outset of the study that their names would remain confidential and that no identifying information would be disclosed in the research results.

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