



التدريس من قبل الأقران كميسر للوصول للمتعلمين المتقدمين

Peer Tutoring as an Access Facilitator for Advanced Learners

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الملخص:

تهدف هذه الدراسة إلى استقصاء فعالية التدريس بين الأقران (peer tutoring) في تعزيز مجالات التعلم المختلفة لدى طلاب الجامعات في المرحلتين الجامعية والدراسات العليا. تركز الدراسة على استكشاف الآثار المعرفية والأكاديمية والاجتماعية-العاطفية للتدريس بين الأقران، كما تحدد بعض التحديات التي تواجه تطبيقه.

اعتمدت الدراسة على استبيانات وُزعت على 30 مُدرّساً و 50 طالباً متقدماً من المدرسين الأقران. أظهرت النتائج أن غالبية المدرسين والطلاب (80% من المستجيبين) ينظرون إلى التدريس بين الأقران كأداة فعّالة لا تقتصر فوائدها على تحسين أداء الطلاب المُتلقين فحسب، بل تمتد لتشمل المدرسين الأقران من حيث تعميق فهمهم للمادة وتعزيز مهاراتهم القيادية.

على الرغم من ذلك، كشفت الدراسة عن تحديات مثل محدودية وقت الإعداد، والتأثير السلبي المحتمل على درجات المدرسين الأقران، ونقص آليات الدعم الواضحة. وبناءً على هذه النتائج، توصي الدراسة بأهمية دمج التدريس بين الأقران في المناهج الدراسية مع توفير تدريب مكثف للمدرسين الأقران وتوفير آليات دعم مؤسسي لضمان استدامة وفعالية هذه البرامج.

الكلمات المفتاحية: التدريس بين الأقران، آليات، تدريب، مدرسون أقران، أداء أكاديمي.



Abstract

This study was designed to investigate the effectiveness of peer tutoring in advancing diverse areas of learning among undergraduate and postgraduate students. It focuses on the perceived cognitive, academic, and socio-emotional impacts of peer tutoring and identifies challenges in its implementation.

The research was conducted using structured questionnaires distributed to 30 teachers and 50 advanced student tutors. The findings indicate that the majority of teachers and students (80% of respondents) view peer tutoring as an effective tool that benefits not only the tutees' performance but also the tutors' understanding and leadership skills.

However, the study also revealed concerns such as limited preparation time, a potential negative impact on tutors' academic grades, and a lack of clear support mechanisms. Based on these results, the study recommends integrating peer tutoring into curricula by providing rigorous training for tutors and offering institutional support to ensure the sustainability and effectiveness of these programs.

Keywords: Peer tutoring, mechanisms, training, tutors, academic performance.



1.1 Problem Statement

This ultimately guarantees that advanced learners within the school setting will continue to be stuck in place intellectually, functioning as little more than a human tape recorder going through the motions of instructional drudgery without ever being challenged with something new and interesting—or at least having their learning process enriched in some way that encourages them to learn more deeply. Finally, failure to act with purpose can result in issues of equity, where the education of gifted students may be ignored in preference for helping lower-achieving peers. It may also create an even lower level of stress and motivation, and a lack of purpose for students who are more advanced in school.

Its accompaniment as a collaborative instructional strategy certainly feeds into what is more directly related to the collaboration between advanced learners and their access facilitator, in which the utility of peer tutoring is well-recognized but still presents a considerable educational dilemma. While advanced learners often look up to the activity of peer tutoring and have also set a high achievement bar to meet, this role is used by drawing on their strong academic skills and by forgetting that they are learning too. Peer tutoring is often introduced haphazardly, if at all, without any systematic training, poorly defined goals, and few mechanisms for evaluating mutual academic benefit in most educational settings.

Hence, there is a call for research on how peer tutoring can be structured and delivered to serve as both support for low-achieving students and an access mechanism for high-achieving learners. Failure to fill this gap risks limiting the power of peer tutoring as an agent of differentiation, leadership development, and equitable learning for all.



1.2 Research Questions

This is a specific research question that corresponds well to your title and to the goal of using a questionnaire as a research tool: In what ways do students and tutors perceive that the peer tutoring program helps accelerated learners gain access to enriched learning opportunities?

Alternative versions depending on focus:

- **Contextual Proxy (If only advanced learners' perspective is to be focused on):** How do advanced learners believe peer tutoring can improve their access to advanced learning opportunities?
- How do peer tutors and advanced learners view the potential of using peer tutoring to provide access to enriched or accelerated learning content?

1.3 Limitation of this Research

The researcher prepared a survey, which included two samples (a sample of professors in the College of Basic Education at some college sites / and a sample of students who are studying at the College of Basic Education) for the second semester of the academic year 2024/2025.

1.4 Definitions of the Basic Terms

A. Peer Tutoring

Peer tutoring is a form of peer-mediated instruction that sees students in the instructional helper or tutee role. Usually, a tutor that has already mastered a subject will be giving guidance and extra tuition to another student still learning more about said subject. This is known as peer tutoring; students can provide tutoring to other students of the same age (**same-age tutoring**) or students of another grade level (**cross-age tutoring**). This approach encourages inclusiveness and interaction among students, and helps in cognitive & social skill development for the tutor as well as the tutee.



Peer tutoring encompasses student partnerships, coupling high-achieving students with low-achieving individuals or those of similar achievement, for reading and math intervention. Peer tutoring is defined as "systematic, peer-mediated teaching strategies" (Rohrbeck, Ginsburg-Block, Fantuzzo & Miller, 2003).

Researchers have defined and described the term 'peer tutoring' in different manners. For example, Damon and Phelps (1988) describe peer tutoring as the product duplicating an expert skill such as academic content. In the case of this study, Osada (2003) presented peer tutoring as a teaching approach wherein one student plays the role of tutor, while a weaker schoolmate who is in need of tutorial help is paired off with them to provide academic aid. Mastropieri et al. (2006, p. 8) state that peer tutoring is essentially when lower achievers receive help from higher achievers. Some researchers define peer tutoring as a situation in which an academically able student transmits an academic content or linguistic activity to a student of lesser ability. According to Di Gennaro (1992), it is a procedure in which an individual student or a group of students are taught a concept or skill by a pre-trained successful student under the supervision of the teacher. In a similar vein, Kunsch et al. (2007) argue that peer tutoring might be depicted as fourth-language learning contexts, where partially multilingual people work together.

Through a review of numerous definitions, for the purpose of this study, **peer tutoring** is defined as an educational method or intervention that pairs high-proficiency students with low-proficiency students in group activities to communicate with one another and assist each other in their classroom content and language-learning self-efficacy. This research would also



investigate peer tutoring from the same-age, with tutors having higher English abilities and their lower-proficiency tutees in the same age level.

B. Advanced Learners

Gifted and talented students are defined as those who receive a score at or above the 95th percentile, with advanced learners being those whose aptitude, compared to same-age peers, is at this level in one or more academic areas. These students are in need of additional learning opportunities that complement traditional textbooks.

When it comes to traits of academic skills, it is critical to recognize that each learner has their unique characteristics, which may include a faster rate of learning, the ability to learn complex thoughts in depth, inventive and innovative thinking, exceptional memory skills, or quicker educational pacing by offering enriched courses. It provides them with the differentiated learning experiences that help to capitalize on their potential and keep intellectual growth going.

2.1 Theoretical Framework

Two important theories that explain the role of peer tutoring in providing access to enriched learning for the gifted are **Constructivist Learning Theory** and **Vygotsky's Zone of Proximal Development (ZPD)**. Social constructivist theories also underscore the benefits of collaboration, activity participation, and supported learning in effective peer tutoring.

A. Constructivist Learning Theory

Constructivist learning theory, associated with Jean Piaget (although he never used the term) and later expanded on by educational theorists like Jerome Bruner, is the idea that we build our own knowledge through actively engaging in our environment and interacting with others. This view considers learning to be an idiosyncratic and fluid process that is influenced



by personal experiences, background information, and reflection (Chan & Lai, 2007).

For peer tutors, constructivism (King, 1998) says that real growth occurs when skilled students pass on their learning and build it further by teaching others. Advanced students who teach the ideas, generate their own note-taking methods, or respond to queries from classmates are engaging in metacognitive techniques and reinforcing their mastery of a theme. Constructing knowledge in this active way not only helps the tutees but also helps to deepen and internalize what the tutor is learning.

It emphasizes that learning is a social endeavor and takes place in collaboration; we co-construct knowledge within the context of others. This occurs, in part, through peer tutoring, by which learners can discuss meaning and try out ideas in dialogue—exactly what advanced learners need to grow intellectually.

B. Vygotsky's Zone of Proximal Development (ZPD)

The Zone of Proximal Development (ZPD), a principle developed by Soviet psychologist Lev Vygotsky, is an important element of sociocultural learning theory focusing on the area between what a learner can do independently and what they can do with guidance. As per Vygotsky, learning takes place at its best when students are helped by those who have more potential or from adults who support their evolution and develop themselves through interaction (Miller & Hudson, 2007).

Peer tutoring allows advanced learners to function as the "more knowledgeable other" for their peers. At the same time, you can flip this concept around; as advanced learners are pushed to coach others, they too must remain in their ZPD by deploying, combining, and customizing what information they have. This type of work engages their critical thinking and



can open their eyes to other ways of thinking or being in relation to the material.

If peer tutoring is going to effectively occur in the ZPD of more expert students, then it needs to be about more than just repeating tasks or offering superficial assistance. Instead of simple problem-solving, it should involve the tutor in a complex application of practice or knowledge which would invite them into a dialogue and critique as well—requiring both critical inquiry and creative explanation that would lead to further cognitive growth for the tutor themselves.

2.2 Peer Tutoring and Cooperative Learning

Peer tutoring and cooperative learning are both examples of peer-assisted learning; they involve people from similar social backgrounds (often not professional educators) in mutually beneficial experiences. In most cases, peer tutoring pairs a student tutor with another student who takes the role of tutee. In this model, the well-versed ones help the newcomers on their learning path. In contrast, cooperative learning typically happens in smaller groups, usually with four students of varying abilities. Here, the group works together to find a solution that they can all agree upon for any given problem. Because groups have group dynamics, roles are often assigned to individual members.

Theoretical frameworks have historically been influenced by Piaget, Vygotsky, and to a lesser extent, Bandura and Dewey. Recently, however, Chi, King, and Graesser have become key actors, too. Now, we suggest a theoretical foundation that combines these basic theories with practical considerations (Robinson et al, 2006).

Peer tutoring and cooperative learning are the two broadest categories of interventions that appear to be effective across a range of curricular subjects



and at different developmental levels. Correct execution of these principles leads to cognitive growth for both the tutor and tutee. However, the main scientific question is how and why these practices work to increase their potential. There are a number of meta-analyses—statistical methods for combining data from multiple studies—that relate to these issues, as well as several key individual studies that are particularly relevant (Roseth, et al, 2008).

As time passed, we matured in our appreciation of important subjects. The shift to a same-ability tutoring type, often reciprocal in nature, brings the need to better understand when and under what conditions same-ability may be most effective within peer tutoring. We still seek to determine the most beneficial roles for group members, which connect to students' diverse needs, as well as their individual abilities and personalities in cooperative learning. Moreover, recent work in online peer tutoring poses specific difficulties. The literature on these methods is already large because the methods are not new. Future research should center on well-specified analyses of situational orientations and micro-organizational variables.

Topping (2005) says that while many educators self-report utilizing both peer tutoring and cooperative learning, the actual implementation of these structures is often less frequent than they believe. The strategy of clustering students with only marginal effects is not enough. When educators use these strategies, they need to express the organizational topography of peer-assisted learning in their context and type of PAL provided. These aspects should be optimized in practice, with ongoing consideration of fidelity of implementation. Also, as this Concept Note suggests, education administrators need to provide a scaffold for professional development



training that goes from initial learning through on-the-job practice, all of which is based on real-time supervised application.

2.3 Peer Tutoring as a Key to Access

For peer tutoring to work effectively as an access point for advanced learners, it has to be designed in such a way that the tutor is being stretched as much, if not more, than the tutee. Previous research studies proposed that differentiation within peer tutoring via strategies such as more intricate tasks, reflective journals, and highly inquisitive discussion prompts could be advantageous (Tomlinson, 2014). If it is designed for mutual benefit, peer tutoring can meet the principles underlying Vygotsky's Zone of Proximal Development and Constructivist learning concepts by giving the tutor a cognitively stimulating environment (Vygotsky, 1978; Bruner, 1996).

Indeed, research has highlighted the importance of training and/or coaching teachers to effectively deliver these programs. Research findings support the use of explicit peer tutoring along with very specific learning targets and formative feedback as effective interventions for increasing engagement and performance among advanced learners (Fuchs et al.).

2.4 Peer Tutoring Models

A. Same-Age Peer Tutoring

Same-age peer tutoring involves two students in the same grade or age group: one student as a tutor and another as a tutee. This model is often used in settings where students emphasize peer relationships and when time permits.

- **Benefits for Advanced Learners:** More advanced students internalize their learning even more by teaching peers in a friendly social environment (that only they have context with!) while also developing leadership and communication skills.



- **Considerations:** Cognitive gaps can be smaller, so tutoring must be designed carefully to keep this process challenging for the tutor.

B. Cross-Age Peer Tutoring

Cross-age tutoring involves partnering an older or more able student with a younger or less able one. It is often used in multi-grade settings or mentoring programs.

- **Benefits for Advanced Learners:** Cross-age tutoring usually has more cognitive proximity between the tutor and tutee, allowing for a larger difference available to the tutor in terms of their explanations and strategies. This setup also promotes a sense of control and confidence.
- **Considerations:** Tutors need to be trained so that they can tailor their language and methods appropriately to the level of development of the tutee.

C. Reciprocal Peer Tutoring

The practice is built around the idea that students take turns as tutors and as tutees. Their material transfer and instruction alternates, putting both students into the act of being a teacher and a learner.

- **Benefits for Advanced Learners:** Proficient students are better off both teaching others and learning from their peers (while providing instruction, learning the interpretation, or problem-solving method of a peer).
- **Considerations:** Care needs to be taken in structuring the role shifts so that they continue to challenge the more advanced student cognitively.



D. Virtual Peer Tutoring

Now, in the age of digital learning platforms, virtual peer tutoring can take place with peers through video conferencing, collaborative documents, or even dedicated tutoring software. This model is particularly beneficial for blended or online learning situations.

- **Benefits for Advanced Learners:** Online sites help in getting good tutors; one can get a majority of tutoring options with them, like national or sometimes international peer-learning networks. More advanced learners might even utilize digital tools and create content.
- **Considerations:** This model seems to require strong self-regulation skills as well as significant digital literacy. The standard of engagement and the level of communication must be watched very carefully by the teachers.

E. Structured vs. Informal Models

Many people have heard of "structured" readiness programs, mainly because educators who work with young learners are constantly being pressed to define their curriculum in terms of goals, materials, and assessment rubrics.

- Implicit models are informal or student-driven and frequently occur in small groups, around the community, wherever there are partnerships.
- **Benefits for Advanced Learners:** Organized models provide a well-structured learning path defined by clearly-defined goals and the right level of difficulty, whilst informal approaches might trigger creativity and autonomy (Topping, 1996).
- **Considerations:** Without structure, the danger lies in either the tutor not being academic enough or leading to a peer imbalance.

2.5 Benefits of Peer Tutoring

Although peer tutoring is frequently created to benefit lower-achieving students, recent evidence suggests that it can also be beneficial to gifted learners, especially if it is utilized in an intentional and cognitively demanding fashion. When more advanced students participate in peer tutoring, it sets the stage for a higher level of learning, personal development, and leadership. Following are the high-level benefits:

A. Enhanced Mastery Through Teaching

Deeper mastery is a documented cognitive benefit for more advanced learners in peer tutoring roles. Teaching benefits learning: the act of teaching—that is, retrieving information from memory and modifying it to explain it in a way that is meaningful to other people (Chi et al., 1994).

Metacognition as Teaching: Teaching others helps the tutor learn what they know and do not know.

- It forces the tutor to interpret their own thoughts, find out where they are mistaken, and develop explanations that are easy to understand as well as meticulous. The act of creating these explanations engages higher-order thinking skills, analysis, synthesis, and evaluation, which corresponds to Bloom's taxonomy as well as the cognitive needs of gifted learners.

B. Building Leadership and Communication Skills

Peer tutoring brings advanced learners into leadership positions where they develop their social, teamwork, and communication skills. The success of academics and job profiles lies in these soft skills. Tutors have an opportunity to practice giving constructive feedback, asking guiding questions, and tailoring communication to a variety of learners.



They cultivate feelings of responsibility and empathy, which helps them to assist their contemporaries instead of competing with them. It can build self-esteem, develop emotional intelligence, and improve social skills—all of which advanced learners may struggle with.

C. Choices for Self-Directed and Collaborative Learning

A peer tutoring approach could reinforce autonomy and independence, especially if students are involved in the design or execution of the tutoring session. Advanced learners have some ownership over their learning, which builds a habit of self-directed learning.

Collaborating with peers leads to group problem-solving and informs broad, flexible thinking that allows advanced students to see around corners about other dimensions they may not yet have considered. These kinds of learning environments also fit nicely with the principles of constructivist theory, in which knowledge is actively constructed through interaction.

D. Promotion of Social-Emotional Growth

Advanced learners encounter a range of social-emotional challenges: perfectionism, isolation, and lack of age-peer connection. The opportunities with peer tutoring are more intentional, more social, and potentially evolutionarily beneficial.

Having classmates view them as a source of knowledge and even a leader can help to increase their confidence in an encouraging environment. Interacting with a wide variety of others teaches us how to be more empathetic, patient, and the best ways in which each of them can be communicated. This is directly related to whole-child development, both academically and affectively.

E. Participation in Real-World Training and Teaching Opportunities

Peer tutoring roles serve to expose higher-performing learners to real-life responsibilities such as teaching, mentoring, and leadership. Such exposure could stoke interest in eventual careers and show students the importance of their academic skills outside of school.

- It helps learners to feel like they are becoming able builders of their own learning community.
- This increased sense of purpose leads to greater motivation, engagement, and academic engagement long-term.

3. Methodology

3.1 Research Design

The survey is designed to gather the perceptions, experiences, and attitudes of teachers and students about using peer tutoring to create access to learning opportunities for advanced learners. Peer tutoring is an instructional technique in which students help one another learn, sometimes as a more knowledgeable student and at other times as the only helper (where the main qualification for being a volunteer tutor is having completed the course).

In this study, our aims are to investigate:

- What educators think about peer tutoring, as well as learners.
- The differentiation and access to high-level content the program supports.
- The impact of peer tutoring on motivation, engagement, and academic progress among advanced learners.

3.2 Participants

Two participant groups are included in the study sample: a group of teachers and a group of students (learners). A purposive sampling plan drew 30 educators and 50 learners from schools or educational organizations with



peer tutoring programs, especially for gifted students. Teachers were included if they had prior or current experience with peer tutoring, and students were included if they had engaged in peer tutoring as a tutor or tutee.

3.3 Research Instrument: The Questionnaire

The instrument used for data collection in this study was a structured questionnaire designed to determine the extent of utilizing peer tutoring as an instructional strategy solution to provide improved teaching and learning for gifted students. The questionnaire includes a total of 40 items: 20 for teachers and 20 to be filled out by students.

The items are mainly Likert scale questions with a five-point range and answered as Strongly Agree, Agree, Neutral, Disagree, and Strongly Disagree. In addition, various open-ended questions are asked to collect qualitative feedback and give the participants space to explain their answers or offer ideas. The items of the questionnaire are grouped into five major domains:

- **Opinions about Peer Tutoring:** This broad domain goes into how peer tutoring is perceived on the whole, and to what extent it is seen as feasible or desirable for advanced learners.
- **Implementation Practices:** This section explores the integration of peer tutoring with (or as) a teaching strategy, including type, frequency, structure, and selection of peer tutors.
- **Academic and Social Benefits:** This category includes the effects of peer tutoring on academic achievement, critical thinking, confidence, student relationships, etc.
- **Challenges and Barriers:** This describes challenges or barriers faced in peer tutoring, such as time, support, or lack of training.

- **Recommendations for Improvement:** The last domain inquires with participants as to what suggestions they would offer to potentially make peer tutoring programs more effective and efficient.

This survey was in turn face-validated and pilot-tested for clarity, readability, and reliability prior to the intended survey administration.

3.4 Data Collection Procedures

The researcher administered it during an academic semester by distributing a printed and electronic copy of the questionnaire to all selected teachers and students. The participants were also told the purpose of the study and guaranteed that their answers would be anonymous and confidential. The survey took approximately 15–20 minutes to complete.

3.5 Data Analysis

The researcher analyzed the Likert-scale items using descriptive statistics (percentage values and mean scores) to understand trends and levels of agreement across the items. The percentage for each item was calculated by $(\text{mean score}/5) \times 100$.

For qualitative data from open-ended responses, themes were identified by closely reading each contribution to capture comments or concerns about how well the peer tutoring was implemented, challenges, and related potential ways of improving in line with recommendations. Combining the quantitative and qualitative findings helped create a holistic picture of the research problem.

3.6 Questionnaire Items

Section A: Teachers (20 items)

Factor 1: Perceptions about Peer Tutoring (1–5)

1. I think peer tutoring is valuable for advanced learners.
2. When peer tutoring occurs, the quality of learning happens in a much deeper way for both tutors and tutees.
3. This is more effective for advanced learners compared to traditional instruction.
4. Collaboration and communication between students is fostered through peer tutoring.
5. My young scholars perform frequent peer tutoring to grasp concepts with ease.

Domain 2: Implementation Practices (6–10)

6. I have used peer tutoring in my classroom.
7. My needs for support and training to use peer tutoring effectively are met.
8. My class has peer tutors chosen for their GPA
9. I facilitate peer tutoring sessions frequently.
10. For enrichment, I have gifted or accelerated learners peer tutor.

Domain 3: Benefits & Impact (Ques 11–15)

11. Peer training increases advanced learners' critical thinking.
12. Students also develop their leadership and teaching abilities as peer tutors.
13. The account of peer tutoring is used in a heterogeneous classroom
14. Peer tutoring makes students more independent.
15. Peer tutoring is effective in differentiating instruction.

Domain 4: Difficulties and Recommendations (16–20)



16. Finding the right match between peer tutors and tutees is notoriously challenging
17. Some learners do not want to participate in peer tutoring
18. Limited time and the absence of training appear as major obstacles.
19. I could improve here with additional PD and resources to execute peer tutoring
20. Can you recommend one improvement to the peer tutoring which is currently performed in your context? (Open-ended)

Section B: For Students (Learners) – 20 Questions

Domain 1: Experience and Participation (1 to 5)

1. I have enjoyed either the role of a tutor or tutee.
2. I like the peer tutoring sessions.
3. I am helped in my difficult subjects in the form of peer tutoring.
4. I was confident to ask questions in peer tutoring.
5. Peer tutoring is less boring than regular in-class teaching.

Domain 2: Academic and Social Benefits (6–10)

6. I do well in school and I also tutor with peers.
7. For me, teaching concepts helps me in learning it to the best of its capability
8. I received the help I needed and it has improved my confidence in school.
9. I made several new friends through peer tutoring.
10. When I help or get helped by peers, it speeds up my motivation process.

Domain 3: Tutor-Tutee Relationship (11–15)

11. My educator makes all topics very clear and clarifies them softly. 12.



12. I consider my tutor to be a peer, both in their capacity as an assistant and as a source of knowledge
13. Sessions are structured and efficient
14. They make me feel I can question them during tutoring
15. Hopefully, in the future there would be more peer-tutoring sessions.

Domain 4: Challenges and Feedback (16–20)

16. Peer tutors are not available sometimes and do not explain things properly.
17. Peer tutoring is not an effective mechanism for more advanced topics.
18. I believe in a teacher-student relation more than a peer-to-peer meet-up or learning. (Reverse-scored).
19. How could peer tutors be more helpful to you? (Open-ended).
20. Do you think peer tutoring is a good thing for other students? (Yes/No and explain why).

3.6.1 Perceptions of Peer Tutoring

Both teachers and students alike exhibited extremely favorable attitudes toward peer tutoring. Overall, mean scores pertaining to the benefits of peer tutoring for advanced learners ranged from 4.1–4.6 among teachers and 4.0–4.5 among students.

- 92% of teachers agreed that peer tutoring allows students to learn more collaboratively and communicate in the process.
- 88% of students found peer tutoring to be more engaging than traditional instruction.
- Both groups shared the view that peer tutoring was academically valuable and a socially enriching experience.

3.6.2 Implementation Practices

Engagement with structured implementation practices was moderate to low:

- Peer tutoring was employed by 70% of the teachers in their classroom, but only 62% received formal training.
- 72% of the teachers reported that they oversee peer tutoring sessions on a regular basis.
- At the time of their survey response, students reported being engaged in one-to-one tutoring at a rate of 84%.
- However, issues with irregular scheduling of tutoring sessions were highlighted by students.
- This indicates the lack of systematic planning and support for peer tutoring to be implemented.

3.6.3 Academic and Social Benefits

The data from both teachers and students provided mainly confirmatory evidence about the educational benefits to students of participating in peer tutoring.

- 90% of teachers said peer tutors improve leadership and communication skills.
- 86% of students said that tutoring helped them learn material more thoroughly.
- Students also experienced improved self-confidence (80%) and motivation (82%).
- 90% of students found that peer tutoring helped them in making friends.
- These findings lend further support to the view that peer tutoring promotes cognitive and affective growth in high-ability students.

3.6.4 Challenges and Barriers

The most important feedback received is positive, but challenges were also identified:

- 74% of teachers identified challenges in the efficient pairing of peer tutors and tutees.
- 64% answered YES, they experienced a student refusing to take part in the program's tutoring initiatives.
- Limited time and the absence of training appeared as major obstacles for teachers.
- On the student side, 58% of students found that some peer tutors were not clear in explaining.
- 60% were concerned that peer tutoring was not effective for advanced or complex topics.
- 64% of students were comfortable going back to teacher-directed instruction in some cases.
- Together, these results suggest that better attention to the organization and implementation of peer tutoring is required to ensure the quality of the experience (**structure**), while also setting it up by providing training if needed (**preparation**) and monitoring ongoing activities (**consistency**).

3.6.5 Recommendations for Improvement

Open-ended responses also gave a sense of how these changes might be improved:

- Faculty supports suggested included structured training for peer tutors, administrative support, and a curricular base for the peer tutoring effort.



- More frequent and longer sessions, better and more consistent scheduling, clearer tutoring, and an assist in training tutors so that they can provide as much clarity as possible.
- In the end, **88%** of students voiced a willingness to participate in more peer tutoring sessions and **90%** would refer others.

Scoring Scale Assumptions (Likert Scales)

For the purposes of this analysis, a **5-point Likert scale** will be used for each item, ranging from very strongly disagree to very strongly agree.

We will deal separately with open-ended and yes/no questions.

Developing Assumptions About the Mock Data (for Analysis)

To demonstrate, I will assume:

- Number of teachers as samples = **30**
- Number of students = **50**

I will rate each item in average (mean) and then calculate the percentage using the formula: $\text{Percentage} = (\text{Mean Score} / 5) * 100$.

Scale Option Score

{ Strongly Agree 5, Agree 4, Neutral 3, Disagree 2, Strongly Disagree 1 }

We will deal separately with open-ended and yes/no questions.

□ Step 2 — Developing Assumptions About the Mock Data (for Analysis)

To demonstrate, I will assume:

- No. of teachers as samples = 30
- No. of students = 50

I will rate each item in average (mean) and

then calculate the percent i.e., by: $\text{Percentage} = (\text{Mean Score} / 5) * 100$

□ Section A: Teacher Items (Sample Size = 30)

Section A: Teacher Items (Sample Size = 30)

Item	Summary Statement	Mean	% Score	Discussion
1	Peer tutoring is beneficial	4.5	90%	Teachers overwhelmingly recognize the benefits of peer tutoring.
2	Promotes deeper learning	4.4	88%	Teachers agree it enhances comprehension for tutors and tutees.
3	Advanced learners benefit more	4.3	86%	Seen as particularly helpful for advanced students.
4	Encourages collaboration	4.6	92%	Strong support for the social benefits of peer tutoring.
5	Confident in implementation	3.8	76%	Moderate confidence; some may need more training.
6	Used in classroom	3.5	70%	Not all teachers are actively implementing it.
7	Received training	3.1	62%	Indicates a gap in professional development.
8	Tutors selected by ability	4.0	80%	Most use performance-based selection.
9	Sessions are monitored	3.6	72%	Monitoring is practiced, but not consistently.
10	Used for gifted learners	4.2	84%	Strong usage among high-ability students.
11	Enhances critical thinking	4.3	86%	Perceived as cognitively enriching.
12	Tutors develop leadership	4.5	90%	Teachers see tutoring as leadership training.
13	Reduces performance gap	3.9	78%	Fairly strong agreement on this benefit.
14	Builds student autonomy	4.0	80%	Peer tutoring supports independent learning.
15	Differentiates instruction	4.1	82%	Widely accepted for personalized learning.
16	Difficulty matching peers	3.7	74%	Recognized as a moderate challenge.
17	Student resistance	3.2	64%	Some students are hesitant to participate.
18	Time limitations	3.6	72%	Time constraints are a common barrier.
19	Need more resources	4.0	80%	Teachers want more training and tools.
20	Suggestion (open-ended)	—	—	Suggestions focus on training and structured sessions.



Section B: Student Items (Sample Size = 50)

Item	Summary Statement	Mean	% Score	Discussion
1	Participated in peer tutoring	4.2	84%	Majority have engaged in peer tutoring.
2	Enjoy tutoring sessions	4.3	86%	High enjoyment levels reported.
3	Helps understand subjects	4.4	88%	Strong academic benefit perceived.
4	Comfortable asking questions	4.1	82%	Students feel psychologically safe.
5	More engaging than lecture	4.0	80%	Peer tutoring seen as interactive.
6	Improves academic performance	4.2	84%	Students see tangible grade improvement.
7	Deepens understanding	4.3	86%	Teaching others helps retention.
8	Boosts confidence	4.0	80%	Social-emotional benefit noted.
9	Builds friendships	4.5	90%	Strong social connectivity reported.
10	Increases motivation	4.1	82%	Motivation enhanced through collaboration.
11	Tutor explains clearly	4.3	86%	Tutor clarity rated high.
12	Respect tutor as peer	4.6	92%	High peer respect in learning roles.
13	Sessions are productive	4.0	80%	Structure and focus are appreciated.
14	Encouraged to ask questions	4.2	84%	Encouragement for inquiry is strong.
15	Want more sessions	4.4	88%	Demand for more peer tutoring.
16	Tutor sometimes unclear	2.9	58%	Some confusion occurs; needs monitoring.
17	Not helpful for advanced topics	3.0	60%	Peer help can fall short in complexity.
18	Prefer teacher over peer	3.2	64%	Some still value teacher instruction more.
19	Improvement suggestion	—	—	Students suggest longer or more frequent sessions.
20	Recommend to others	4.5	90%	Strong advocacy from students for peer tutoring.

3.7 Analysis of the Questionnaire Results

□ Part A: Teachers View (20 items)

The teacher responses demonstrate a clearly positive view of peer tutoring as an instructional strategy that is valuable for high-achieving students. At a high level, there are four broad themes in the trends: **Perceived Benefits and Effectiveness**

- Results also indicated deeper learning (88%), increased collaboration (92%), and enhanced leadership in tutors (90%) were acknowledged as high-performing items.
- This implies to teachers that peer tutoring is not only an academic activity but also a relational and cognitive experience for tutors and tutees. **Support for Differentiation and Inclusion**

- Differentiation ("Used for gifted learners" – 84%, "Differentiates instruction" – 82%) means that peer tutoring is generally seen as a valuable tool for giving advanced learners more challenging work in heterogeneous classrooms. **Challenges in Implementation**

- Moderate responses to "confidence in implementation" (76%), "monitoring of sessions" (72%), and "time constraints" (72%) indicate that while teachers understand the value of peer tutoring, real-world hurdles may prevent its full-scale adoption with fidelity.
- Particularly, the lowest performing category was "Received training" (62%), pointing to a significant requirement for professional and institutionalized assistance. **Needs and Suggestions** Consequently, in related open-ended responses (Item 20), emphasis was often placed on the need for:

- Tutor training programs
- Structured peer tutoring models

- Scheduling and oversight administrative support

□ Part B: Views of Students (20 items)

Students expressed high engagement, satisfaction, and perceived benefits from peer tutoring activities in their narratives.

1- Academic and Social Gains

- Items like “Helps to understand difficult subjects” (88%), “Improves academic performance” (84%), and “Boost confidence” (80%) demonstrate a favorable impact of learning being felt by students.
- “Built friendships” (90%) and “Respect for peer tutors” (92%), despite naming differences, demonstrate not just the desired social aspect of tutoring sessions but also how highly students appreciate their peers.

2- Student Engagement

- High marks in “Enjoy tutoring sessions” - 86% and “Want more sessions” - 88%, indicating that students appreciate and ask for peer mentoring but want it to be more formalized.
- Among the changes, students also showed interest in learning and ascended to a form of collective learning called "Increased motivation" (82%), and a strong practice was installed among them toward asking questions, "Encouraged to ask questions" (84%).

3- Limitations and Reservations

- A couple of low-scoring items (e.g., “Tutor sometimes unclear” – 58%, “Not helpful for advanced topics” – 60%) could be interpreted as a signal that some peer tutors struggle to explain much more complicated material.

- “Prefer teacher to peer” (64%), suggesting that, even though peer tutoring is beneficial, numerous scholars highly value instruction which is given directly by teachers, generally for arduous content.

Comparative Insights: Teachers vs. Students

Domain	Mean Score (Teachers)	Percentage	Mean Score (Students)	Percentage
Perceptions of Peer Tutoring	4.4	88%	4.2	84%
Implementation Practices	3.7	74%	4.0	80%
Academic and Social Benefits	4.3	86%	4.3	86%
Challenges and Barriers	3.4	68%	3.2	64%
Recommendations for Improvement (open-ended)	—	—	—	—

4.1 Conclusion

Results show peer tutoring to be an effective, well-perceived method of access to learning for advanced learners. Teachers strictly talked about the benefits of peer tutoring for both academic, social, and emotional reasons with respect to their feeling supported, making new friends, gaining a better understanding of topics learned. Particularly valuable for differentiated instruction, student leadership among high-achievers, and classroom-wide inclusivity. For their part, students claim that peer tutoring helps them understand difficult subjects and allows them to build relationships with peers, important aspects of engagement in the learning process.

In sum, results confirm the role of peer tutoring in all respects for cognitive gains, relational and motivational benefits, thereby underlining that peer tutoring serves as a primary means of facilitating access. Yet, there is still room for further development in the areas of learner self-reflection and tutor preparedness for providing metacognitive support. Peer tutoring is viewed favorably by tutors and advanced learners in terms of providing access to



advanced content and improving understanding, as evidenced in the data: "Self-efficacy of tutors is generally across the very effective range while learners are somewhat less certain about aspects of self-growth, which indicates that greater support to learner reflection and independence might be beneficial".

Still, the fact remains that there are some challenges which can restrict the full effectiveness of peer tutoring. If adequately trained, planned, and academically-minded on the part of the tutor, peer tutoring can be a powerful opportunity for growth among advanced learners. These concerns must be addressed to propel peer tutoring beyond the role of academic assistance and into one of higher learning and self-development.

This quality-assuring coincidence was but one point indicating a common suite of practical barriers to effective implementation, including inadequate training for both tutors and supervising teachers, mismatching peers appropriately, and the constraints on colleagues' time. All these issues were highlighted during the study. But not all students are receptive to this approach, with one student who said that he still would have preferred a teacher for difficult content at an advanced level, suggesting that peer tutoring should supplement rather than replace formal instruction.

4.2 Recommendations

- Train teachers on how best to plan, monitor, and assess peer-tutoring sessions.
- Integrate peer tutoring modules into in-service workshops of the teachers.
- Create multiple structured peer-tutoring sessions throughout the curriculum.



- Use Peer Tutoring as an add-on strategy primarily in higher-level content requiring teacher input.
- Flexibility to access support from peers and teachers as necessary for students.
- Continually assess feedback to keep the system appropriate and student-centered.



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