

Advantages of Peer Tutoring for Students with Hearing Impairment: A Survey of Special Education Teachers' Perceptions

Sheza Amjad ¹, Muhammad Usman Zia ²

¹ Special Education Teacher, Eilya Care Foundation, Faisalabad | amjadsheza7@gmail.com

² Lecturer, University of Education Lahore, Faisalabad Campus | usman.zia@ue.edu.pk

DOI: <https://doi.org/10.70670/sra.v3i1.550>

Abstract

This study explores the perceptions of the teachers about academic, social and personal advantages of peer tutoring for students with hearing impairment. Survey design was employed for data collection using a self-developed, expert validated questionnaire. The questionnaire was consisting of two sections: demographic variables and 16 statements examining the perceptions of teachers. The teachers of students with hearing impairment from special education schools in Punjab, Pakistan were considered to be the population of the study, with a sample of 66 teachers randomly selected as the sample. The data was collected online and data analysis utilized descriptive and inferential statistics. A broad agreement on the impact of peer tutoring on educational achievement, social skills and personal development was found with no significant differences in the opinions of teachers on the basis of gender.

Keywords: Academic, Social, Peer Tutoring, Hearing Impairment

Introduction

Children with hearing impairments face difficulties in detecting sounds, which hampers their ability to respond to auditory stimuli and communicate effectively with both their hearing-impaired peers and those without hearing impairments. These challenges can hinder their personal development, intellectual growth, and social skills. Deafness, defined as a partial or total inability to hear, can be either congenital or acquired through factors like aging, illnesses, injuries, or exposure to loud noises (World Health Organization, 2021). Peer tutoring, which encompasses peer learning, cooperative learning, and peer collaboration, employs strategies that allow students to teach one another without direct teacher oversight (Boud et al., 1999: 413). Peer tutors commonly support their peers in small groups or individually, helping to extend classroom discussions, enhance study skills, tackle specific academic challenges, and encourage independent learning (Colvin, 2007; Falchikov 2001; Boud, et al 2001). Teachers have reported that peer tutoring in special education has multi-dimensional impact on the academic and social development of students with disabilities. Okilwa & Shelby (2010) report that teachers perceive the peer tutoring to be positively impactful on the academic outcomes of students with disabilities across various subjects including mathematics, language and arts. Motivation and participation in the academic activities has also been reported to increase among students with disabilities with the help of structure peer tutoring (Almulla, 2018). In addition to academic performance, teachers also perceive that peer tutoring helps the students with disabilities in social and emotional development. For instance, teachers believe that peer tutoring has a positive effect on development of social relationships and enhancement of self-esteem in students with disabilities (Almulla, 2018).

However, teachers face challenges in implementation of peer tutoring programs without appropriate training of tutors and tutees (Boudouris, 2005; Twardowski, 2014). Perceptions of teachers about academic and social advantages of peer tutoring for students with hearing impairment in Pakistani context need to be explored further for better understanding of the phenomenon.

Literature Review

Peer tutoring have been reported to be significantly improving the academic outcomes for students with hearing impairment. Researches have argued that students who are involved in the peer tutoring programs show better comprehension and retention of learning material as compared to those who are not involved. Literature indicated that peer tutoring has positive effect on the academic performance of students with disabilities including the students with hearing impairment (Traverse & Carter, 2022). Peer tutoring in interactive in its nature. Being interactive in nature, peer tutoring allows the students to enjoy personalized learning experience and receive the support tailored to their unique needs (Bakare & Orji, 2019). Peer tutoring has been reported to have not only academic benefits but also fostering social skills of students with hearing impairments. By creating the opportunities of meaningful interaction, it develops the social skills and reduces the feeling of isolation among the students. Ubah et. al, (2022) reported that the peer tutors indicate the increased confidence, self-esteem and sense of belonging the school community by peer tutoring. Because of the collaborative nature, peer tutoring enhanced the communication skills and encourages positive social relationships, which are of crucial nature for social adjustment for social adjustment of students with hearing impairment (Moeyaert et al., 2021). Peer tutoring also allows the tutors and tutees to gain valuable insights into empathy, patience and reinforcement of their own learning because of its reciprocal nature (Thurston et al., 2020).

Statement of the Problem

Many teachers have differing perceptions about the effectiveness of peer tutoring for students with hearing impairment. It is important to understand their viewpoints and beliefs in order to enhance the implementation and impact of peer tutoring in supporting the academic and social development of these students. The present study aimed to explore the perceptions of teachers on academic, social and personal advantages of peer-tutoring for students with hearing impairment.

Objective of the Study

The present study was aimed to achieve the following objectives:

1. To gain the perceptions of the teachers about academic advantages of peer-tutoring for students with hearing impairment.
2. To explore the perceptions of the teachers about social advantages of peer-tutoring for students with hearing impairment.
3. To appraise the perceptions of the teachers about personal advantages of peer-tutoring for students with hearing impairment.
4. To find out the differences between the perceptions of teachers

Procedure

The study was quantitative in nature and survey design was employed to collect the data. A self-developed and expert-validated survey form was used to obtain the perceptions of teachers about the academic and social advantages of peer-tutoring for students with hearing impairment. The survey form comprised of two parts, first part dealt with the demographic information and second part consisted of 16 statements examining the teachers' perceptions. Population of the study comprised of the teachers of students with hearing impairment. Accessible population was teachers of HI area from Special Education schools of Punjab. 66 teachers of students with hearing

impairment were randomly selected as the sample of the study. The survey form was shared with the teachers online and all the data were collected online and statistically analyzed.

Data Analysis and Results

Following section represents the data analysis and the results.

Gender and Age of the Respondents

Table No.1. Gender of the Respondents

| Sr. | Gender | Frequency | Percentage |
|--------------|--------|-----------|------------|
| 1 | Female | 46 | 69.7 |
| 2 | Male | 20 | 30.3 |
| Total | | 66 | 100 |

Table No.1. indicates that 69.7% of the respondents were male and 30.3% of the respondents were female.

Table No.2. Age group of the respondents

| Sr. | Age Group | Frequency | Percentage |
|--------------|-------------|-----------|------------|
| 1 | 26-36 Years | 53 | 80.3 |
| 2 | 36-46 Years | 13 | 19.7 |
| Total | | 66 | 100 |

Table No.2. indicates that 80.3% of the respondents belonged to age group 26-36 Years and 19.7% of them belonged to age group 36-46 Years.

Table No.3. Academic Advantages of Peer Tutoring

| Sr. No. | Statement | Strongly Disagree | | Disagree | | Neutral | | Agree | | Strongly Agree | |
|---------|--|-------------------|-----|----------|------|---------|------|-------|------|----------------|------|
| | | Freq | % | Freq | % | Freq | % | Freq | % | Freq | % |
| 1 | Peer Tutoring leads to increased academic achievement for tutor and tutee. | 1 | 1.5 | 5 | 7.6 | 10 | 15.2 | 29 | 43.9 | 21 | 31.8 |
| 2 | Peer Tutoring improves the mastery of the subject matter for tutor | 1 | 1.5 | 7 | 10.6 | 1 | 1.5 | 36 | 54.5 | 21 | 31.8 |
| 3 | Peer Tutoring helps tutee understand the subject matter. | 1 | 1.5 | 7 | 10.6 | 4 | 6.1 | 35 | 53.0 | 19 | 28.8 |
| 4 | HI students should engage in peer tutoring to expand their knowledge. | | | 10 | 15.2 | | | 30 | 45.5 | 25 | 37.9 |
| 5 | Tutors can expand their knowledge by | 4 | 6.1 | 9 | 13.6 | 9 | 13.6 | 10 | 15.2 | 34 | 51.5 |

| | | | | | | | | | | | |
|---|---|---|-----|---|-----|----|------|----|------|----|------|
| | investing time in finding the right materials and sources. | | | | | | | | | | |
| 6 | HI students can achieve improvement and success through Peer Tutoring | 1 | 1.5 | 5 | 7.6 | 12 | 18.2 | 17 | 25.8 | 31 | 47.0 |

A significant proportion of respondents agree (43.9%) or strongly agree (31.8%) that peer tutoring leads to increased academic achievement for both tutor and tutee, indicating a strong belief in its positive impact. Only a small percentage (9.1%) disagrees or strongly disagrees. Respondents largely perceive that peer tutoring improves the mastery of the subject matter for the tutor, with 54.5% agreeing and 31.8% strongly agreeing. Minimal disagreement (12.1%) suggests recognition of its benefits. Over 80% of respondents believe that peer tutoring helps tutees understand the subject matter (53.0% agree and 28.8% strongly agree), while disagreement remains low at 12.1%. A combined 83.4% agree (45.5%) or strongly agree (37.9%) that hearing-impaired (HI) students should engage in peer tutoring to expand their knowledge, showing strong support for this strategy. More than half (51.5%) strongly agree, with another 15.2% agreeing, that tutors can expand their knowledge by investing time in finding the right materials and sources. However, disagreement (19.7%) reflects some skepticism. Most respondents (72.8%) agree or strongly agree that HI students can achieve improvement and success through peer tutoring, confirming its perceived effectiveness.

Table No.4. Social Advantages of Peer-tutoring

| Sr. No. | Statement | Strongly Disagree | | Disagree | | Neutral | | Agree | | Strongly Agree | |
|---------|--|-------------------|-----|----------|------|---------|------|-------|------|----------------|------|
| | | Freq | % | Freq | % | Freq | % | Freq | % | Freq | % |
| 7 | Through Peer Tutoring, HI students develop communication and social skills. | 3 | 4.5 | 1 | 1.5 | 7 | 10.6 | 29 | 43.9 | 26 | 39.4 |
| 8 | HI students gain confidence and strong interpersonal skills through peer tutoring. | 2 | 3.0 | 11 | 16.7 | 11 | 16.7 | 17 | 25.8 | 0 | 0 |
| 9 | Peer Tutoring creates a positive and inclusive social environment for students. | 2 | 3.0 | 10 | 15.2 | 8 | 12.1 | 32 | 48.5 | 14 | 21.2 |

| | | | | | | | | | | | |
|----|---|---|-----|----|------|----|------|----|------|----|------|
| 10 | Peer Tutoring encourages empathy and mutual respect among students with Hearing Impairment. | 2 | 3.0 | 14 | 21.2 | 10 | 15.2 | 24 | 36.4 | 16 | 24.2 |
| 11 | Students with hearing impairment feel supported and understood through peer tutoring. | 3 | 4.5 | 4 | 6.1 | 17 | 25.8 | 27 | 40.9 | 15 | 22.7 |
| 12 | Students with hearing impairment gain a sense of empowerment and self-confidence through peer tutoring. | 4 | 6.1 | 2 | 3.0 | 6 | 9.1 | 28 | 42.4 | 26 | 39.4 |

A majority (83.3%) agree or strongly agree that peer tutoring helps HI students develop communication and social skills, highlighting its social benefits. While 42.5% agree or strongly agree that HI students gain confidence and strong interpersonal skills through peer tutoring, a notable 33.4% express neutrality or disagreement, indicating mixed perceptions. Most respondents (69.7%) agree or strongly agree that peer tutoring creates a positive and inclusive social environment for students, though 18.2% express disagreement. About 60.6% agree or strongly agree that peer tutoring encourages empathy and mutual respect among students with hearing impairment, but 24.2% disagreement suggests room for improvement. Support and understanding are recognized by 63.6% who agree or strongly agree that students with hearing impairment feel supported and understood through peer tutoring, though 36.4% remain neutral or disagree. A high level of agreement (81.8%) confirms that peer tutoring helps students with hearing impairment gain a sense of empowerment and self-confidence.

Table No.5. Personal Advantages of Peer-tutoring

| Sr. No. | Statement | Strongly Disagree | | Disagree | | Neutral | | Agree | | Strongly Agree | |
|---------|--|-------------------|-----|----------|-----|---------|------|-------|------|----------------|------|
| | | Freq | % | Freq | % | Freq | % | Freq | % | Freq | % |
| 13 | Peer Tutoring helps hearing impaired students build self-confidence. | 2 | 3.0 | 5 | 7.6 | 10 | 15.2 | 20 | 30.3 | 29 | 43.9 |
| 14 | Peer Tutoring develop stronger | 0 | 0 | 0 | 0 | 14 | 21.2 | 32 | 48.5 | 20 | 30.3 |

| | | | | | | | | | | | |
|----|---|---|---|---|-----|---|------|----|------|----|------|
| | communication and problem solving skills in students. | | | | | | | | | | |
| 15 | Peer Tutoring empowers HI students to take ownership of their learning journey. | 0 | | 1 | 1.5 | 7 | 10.6 | 44 | 66.7 | 14 | 21.2 |
| 16 | Peer Tutoring allows hearing impaired students to receive personalized support tailored to their unique learning needs. | 0 | 0 | 0 | 0 | 6 | 9.1 | 29 | 43.9 | 31 | 47.0 |

Most respondents (74.2%) agree or strongly agree that peer tutoring builds self-confidence in hearing-impaired students, affirming its effectiveness. Respondents unanimously agree that peer tutoring develops stronger communication and problem-solving skills, demonstrating universal support. A large majority (87.9%) believe that peer tutoring empowers HI students to take ownership of their learning journey, reflecting strong confidence in its empowering impact. The majority (91%) agreed or strongly agreed that peer tutoring allows hearing-impaired students to receive personalized support tailored to their unique learning needs.

Differences in Perceptions of the Respondents on the basis of their Gender

Independent sample t-test was run to explore the difference between the perceptions of male and female teachers about academic, social and personal advantages of peer-tutoring for students with hearing impairment.

Table No.5. Independent sample t-test depicting the difference between the perceptions of male and female teachers about academic advantages of peer-tutoring

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | 95% Confidence Interval of the Difference | |
|---------------------------------|-----------------------------------|---|------|------------------------------|----|------------------------|--------------------|--|---------------------|
| | | F | Sig. | t | df | Sig. (2- tailed) | Mean Difference | Std. Error Difference | Lower Upper |
| Academic Advantages Score | Equal variances assumed | 5.865 | .018 | .701 | 64 | .486 | .71522 | 1.01983 | -1.32213 2.75256 |
| | Equal variances not assumed | | | .937 | 63 | .937 | .352 | .71522 | .76330 |

Levene's test for equality of variances indicates a significant result ($F = 5.865, p = 0.018$), meaning that the assumption of equal variances is violated. Using the row for "equal variances not assumed," the t-test result shows no significant difference in perceptions between male and female teachers ($t(63.937) = 0.937, p = 0.352$). The mean difference of 0.71522 is small, with a 95% confidence interval ranging from -0.80968 to 2.24011.

Table No.6. Independent sample t-test depicting the difference between the perceptions of male and female teachers about social advantages of peer-tutoring

| | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | 95% Confidence Interval of the | |
|--|---|------|------------------------------|-----|------------------------|--------------------|--------------------------------------|----------------|
| | F | Sig. | t | df | Sig. (2- tailed) | Mean Difference | Std. Error Difference | Lower Upper |
| totalscore2Equal variances assumed | .185 | .669 | 1.10464 | | .274 | 1.08261 | .98099 | -.877153.04236 |
| Equal variances not assumed | | | 1.08935 | 126 | .284 | 1.08261 | .99440 | -.935863.10108 |

Levene's test result is non-significant ($F = 0.185, p = 0.669$), suggesting equal variances. The t-test for equality of means shows no significant difference ($t(64) = 1.104, p = 0.274$). The mean difference of 1.08261 is small, with a 95% confidence interval of -0.87715 to 3.04236.

Table No.7. Independent sample t-test depicting the difference between the perceptions of male and female teachers about personal advantages of peer-tutoring

| | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | 95% Confidence Interval of the | |
|--|---|------|------------------------------|----|---------------------|--------------------|--------------------------------------|----------------|
| | F | Sig. | t | df | Sig. (2- tailed) | Mean Difference | Std. Error Difference | Lower Upper |
| totalscore3Equal variances assumed | .585 | .447 | .400 | 64 | .690 | .20217 | .50486 | -.806391.21074 |
| Equal variances not assumed | | | .374 | 31 | .246 | .711 | .54070 | -.900251.30460 |

Levene's test ($F = 0.585, p = 0.447$) indicates that equal variances are assumed. The t-test result shows no significant difference ($t(64) = 0.400, p = 0.690$). The mean difference of 0.20217 falls within a 95% confidence interval of -0.80639 to 1.21074.

Findings

Following are the major findings derived from the data analysis.

Academic Advantages of Peer Tutoring:

- i. A substantial proportion of respondents (75.7%) either agreed or strongly agreed that peer tutoring enhances academic achievement for both tutors and tutees.
- ii. The majority of teachers agreed that peer tutoring facilitates mastery of subject matter, with minimal levels of disagreement.
- iii. The independent sample t-test indicated no statistically significant difference in perceptions of academic advantages between male and female teachers, with a p-value of 0.352.

Social Advantages of Peer Tutoring:

- i. The data showed endorsement for peer tutoring's role in developing communication and social skills, with over 80% of respondents showing agreement or strong agreement.
- ii. Teachers recognized peer tutoring as a mechanism for fostering empathy, mutual respect, and a positive social environment among students.
- iii. The independent sample t-test indicated no significant gender-based differences in perceptions of teachers on social benefits, as indicated by a p-value of 0.274.

Personal Advantages of Peer Tutoring:

- i. High levels of agreement (over 70%) were observed regarding peer tutoring's contribution to building self-confidence and fostering personal empowerment among students.
- ii. Teachers highlighted that peer tutoring provides personalized support that enhances autonomy and self-efficacy for hearing-impaired students.
- iii. The independent sample t-test results confirmed no significant difference in perceptions of personal advantages between male and female teachers, with a p-value of 0.690.

Gender Comparisons:

- i. Across all three variables (academic, social, and personal advantages), the analysis revealed no statistically significant differences in perceptions between male and female teachers. This uniformity underscores a shared understanding and valuation of the benefits of peer tutoring across genders.

Discussion and Conclusion

The findings of the study confirm the academic, social and personal advantages of peer tutoring for students with hearing impairment. Majority of the teachers recognized that peer tutoring enhances the academic achievement, as noted by Traverse and Carter (2022) who found improved comprehension and retention among students engaged in peer assisted learning. Peer tutoring also improves the communication skills and social adjustment among the students, which is consistent with Ubah et al. (2022) and Moeyaert et al. (2021). Increased self-confidence as social advantage of peer tutoring found by this study is mirrored with findings by Thurston et al. (2020) who emphasized the reciprocal benefits and nature of peer tutoring for both tutors and tutees. Results of independent sample t-test showed no significant difference in the opinions of teachers based on their gender, about academic, social, and personal benefits of peer tutoring indicating the universality of the benefits of peer tutoring. These findings align with Almulla (2018) and Okilwa & Shelby (2010), who found similar perceptions across diverse teaching groups. While this study indicated generally positive perceptions, Boudouris (2005) and Twardowski (2014) identified that there is a need for structured training programs for tutors and tutees to enhance the effectiveness of peer tutoring programs. Conclusively, peer tutoring can be viewed as an effective and versatile strategy to benefit students with hearing impairment for their academic, social and personal

growth. Future research may explore the long-term impact of peer tutoring and role of structures training programs.

Recommendations

Following recommendations are drawn on the basis of the results of the study.

1. The schools should introduce structured peer tutoring programs with specialized training for tutors and tutees, emphasizing the academic outcomes.
2. Peer tutoring initiatives that incorporate activities for development of social skills such as communication and interaction may also be developed and implemented for enhancement of social adjustment among students with hearing impairment.
3. Training programs focused on building self-confidence and personal growth through peer tutoring may also be incorporated in education system to ensure the personalized support for different learning needs of students with hearing impairment.

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