**Short Research Article**

**THE CORRELATION BETWEEN TEACHER SUPPORT AND ACADEMIC SUCCESS OF HEARING IMPAIRED LEARNERS IN PRIMARY SCHOOL**

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**Abstract**

This study examined the relationship between teacher support and academic success among hearing-impaired students in selected elementary schools in Davao Oriental, Philippines. Using a quantitative, descriptive-correlational research design, the study involved 102 teacher respondents from public and private schools offering inclusive or special education (SPED) programs. Data were collected using adapted survey questionnaires measuring teacher support in terms of teacher-student relationship, emotional support and availability, and teacher perception. Academic success was assessed through self-perceived academic competence, academic challenges, and academic support-seeking behavior. The instrument underwent expert validation and pilot testing, yielding high reliability coefficients (α = 0.87 for teacher support; α = 0.84 for academic success). Pearson’s Product-Moment Correlation was employed to analyze the results. Findings revealed that hearing-impaired students generally experienced very high levels of teacher support, especially in relational and emotional aspects. Teachers also expressed confidence in their students’ academic potential. However, instructional challenges persisted in terms of pacing, communication, and the use of visual aids. Surprisingly, the correlation between teacher support and academic success was weak and statistically non-significant (r = 0.005), indicating that other contextual or instructional factors may have influenced student outcomes. The study affirmed the role of emotionally supportive teacher-student relationships but emphasized the need for enhanced teacher training, inclusive pedagogical strategies, and systemic support. It recommended institutional reforms in teacher preparation, curriculum design, and provision of tailored resources to support the needs of hearing-impaired learners in achieving inclusive and quality education (SDG 4).

*Keywords: academic success; selected municipalities of Davao Oriental, Philippines; teacher support*

**Introduction**

Education remains a fundamental human right and an essential foundation for inclusive development (UN General Assembly, 2015). However, children with hearing impairments continue to face systemic barriers in accessing inclusive and equitable learning environments. These challenges often arise from limited access to sign language instruction, insufficiently trained teachers, and a lack of individualized support strategies (Ndibalema, 2025; Te Molder, 2024). According to the World Health Organization (2021), over 430 million people globally live with disabling hearing loss, many of whom are school-aged children who are at risk of being underserved in mainstream education systems.

Despite growing efforts to promote inclusive education through assistive technologies and policy reforms, learning disparities remain. Recent studies emphasize that the quality of teacher support, through instructional differentiation, emotional responsiveness, and clear communication, plays a critical role in shaping the academic outcomes of deaf and hard-of-hearing learners (Borders & Probst, 2023; Hartman et al. 2023)

In the Philippines, inclusive education policies such as Republic Act No. 7277 (Magna Carta for Disabled Persons), Republic Act No. 10533 (Enhanced Basic Education Act of 2013), and most recently, Republic Act No. 11650 (Inclusive Education Act) have aimed to provide equitable opportunities for learners with disabilities. These laws mandate that all schools accommodate learners with diverse needs and ensure that no student is denied access to quality education based on disability (Philippine News Agency, 2023). Nonetheless, gaps in implementation persist, particularly in public elementary schools, where challenges include insufficient training for teachers, limited teaching resources, and a lack of accessible infrastructure (Paga, 2023).

In Davao Oriental, schools mirror these national challenges. A study conducted at the Mati Special Education Center revealed that teachers often struggle to provide adequate academic support to hearing-impaired learners due to large class sizes, a shortage of teachers trained in special education, and limited access to sign language interpreters and hearing-assistive devices (Paga, 2023). Consequently, these learners remain at risk of lower academic performance, diminished self-esteem, and social exclusion.

This study aimed to determine the relationship between teacher support and the academic success of hearing-impaired learners in primary schools. It hypothesized that there is no significant relationship between teacher support and academic success. The study was anchored on Vygotsky’s Social Interaction Theory, which emphasized that learning occurs through social communication and collaborative interactions.

FIG 1. Relationship between teacher support and the academic success



**Method**

 This study adopted a quantitative, descriptive research design. Descriptive research enabled researchers to systematically and accurately present the characteristics of a population, condition, or phenomenon (Dovetail Editorial Team, 2023). This study was used to outline the current state of teacher support provided to hearing-impaired learners in elementary schools, as well as their academic performance.

The correlational component examined the relationship between teacher support and academic achievement. Teacher support was measured in terms of teacher-student relationship, emotional support and availability, and perception of a teacher, through structured survey questionnaires administered to teachers. Academic success was evaluated through self-perceived academic competence, academic challenges, and academic support-seeking behaviour as permitted by school administrators.

This research design was appropriate for identifying existing patterns and relationships without manipulating variables, and it supported the investigation of whether teacher support was significantly associated with the academic success of hearing-impaired elementary students.

This study was conducted in the timeline between first week of April until the first week of June, in the province of Davao Oriental, located in the southeastern part of Mindanao, Philippines. Specifically, the research took place in selected areas within the province, including the City of Mati and the municipalities of Lupon, Manay, Banaybanay, and Governor Generoso. These locations were chosen for their accessibility and the presence of special education (SPED) programs within their respective public schools.

From each of these areas, two SPED schools were selected to participate in the study. The inclusion of multiple schools from diverse localities within Davao Oriental allowed for a broader and more representative perspective on the level of teacher support provided to hearing-impaired learners in inclusive settings. This geographic coverage helped ensure that the findings reflected the educational realities and support structures available across different urban and rural contexts within the province.

This study utilized a total enumeration technique to identify 102 respondents who met specific criteria relevant to the research objectives. Total enumeration sampling, also referred to or known as complete enumeration or census sampling, was a non-probability sampling technique in which all members of the population were included in the study. This method was used when the population size was small, accessible, and manageable, making it feasible to study every unit without sampling. — Creswell, J. W. (2014). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. Unlike random sampling, which sought to achieve broad representation by minimizing bias through random selection, purposive sampling focused on selecting individuals who could provide the most meaningful and context-specific data.

In this study, the sample consisted of elementary-level teachers of hearing-impaired students from selected public and private schools. These institutions offered inclusive or special education programs with established systems supporting learners with hearing impairments. Meanwhile, the teachers had at least one year of experience in handling hearing-impaired learners and were actively engaged in their instruction.

This study utilized an adapted survey questionnaire as the primary instrument for collecting data on two main variables: the level of teacher support for hearing-impaired learners and their overall academic success. The questionnaire consisted of closed-ended items measured on a Likert scale, focusing on various dimensions such as instructional practices, classroom accommodations, visual support usage, and the frequency and perceived effectiveness of teacher interventions for hearing-impaired students in inclusive settings.

The study employed questionnaires for the teachers. The questionnaires contained 54 items, distributed across two major variables. The teacher support variable included 27 items across three indicators: Teacher-Student Relationship, Emotional Support and Availability, and Perception of the Teacher. The academic success variable included 27 items grouped under Self-Perceived Academic Competence, Academic Challenges, and Academic Support-Seeking Behaviour.

Prior to data collection, the adapted survey questionnaire underwent a validation process to ensure its clarity, relevance, and reliability. Content validity was established through the evaluation of three experts: a SPED coordinator, an educational researcher, and a university instructor with expertise in inclusive education. They assessed the items based on their alignment with the study objectives and relevance to the experiences of teachers handling hearing-impaired learners. Suggestions for improvement were incorporated to refine item wording and ensure contextual appropriateness.

Following expert validation, a pilot test was conducted involving 10 SPED teachers from a division not included in the actual study. Reliability testing using Cronbach’s alpha revealed a coefficient of 0.87 for the teacher support scale and 0.84 for the academic success scale. These values indicated high internal consistency, confirming that the instrument was both valid and reliable for use in the main study.

The data collected through the survey questionnaires were analyzed using quantitative statistical techniques to explore the relationship between the level of teacher support and the academic success of hearing-impaired learners in primary school settings.

Descriptive statistics—including frequencies, means, and standard deviations—were used to summarize demographic data and the distribution of responses for each item. This method allowed researchers to present a clear and systematic summary of observed variables in the study population (Creswell, 2017).

Pearson’s Product–Moment Correlation Coefficient was used to assess the strength and direction of the linear relationship between teacher support and academic success. This test is appropriate for continuous variables and requires assumptions of linearity, normality, and homoscedasticity. A significance threshold of 0.05 was set to evaluate whether the observed correlation was statistically significant (Schober et al., 2018).

In conducting this study on the correlation between teacher support and the academic success of hearing-impaired learners, ethical integrity was of paramount importance. All participating teachers were provided with detailed information about the purpose, procedures, potential risks, and benefits of the study. Participation was entirely voluntary, and written informed consent was obtained before data collection. All data collected were treated with strict confidentiality. Participants’ identities, as well as the names of schools or institutions involved, were not disclosed in any report or publication arising from the study.

**Results**

This chapter presented the findings of the study on the relationship between teacher support and academic success among hearing-impaired students. The data were organized according to the two major variables of the study—teacher support and academic success. Each variable was divided into relevant subcategories to allow a more focused interpretation of the results. The findings were presented in tabular form followed by a narrative discussion and a summary.

TABLE 1. **List of variables and Their Indicators**

|  |  |  |  |
| --- | --- | --- | --- |
| **Variables and Their Indicators** | **Standard Deviation** | **Mean** | **Verbal Description** |
| **Teacher Support** | **1.05** | **2.72** | **High** |
|  Teacher-Student Relationship | 0.64 | 3.47 | Very High |
|  Emotional Support and Availability | 0.98 | 2.30 | High |
|  Perception of the Teacher | 1.14 | 2.76 | High |
| **Academic Success** | **0.72** | **3.47** | **Very High** |
|  Self-Perceived Academic Competence | 0.52 | 3.64 | Very High |
|  Academic Challenges | 0.86 | 3.36 | High |
|  Academic Support-Seeking Behaviour | 0.61 | 2.45 | High |

The Standard deviations and verbal interpretations for each of the main variables and their respective indicators. The table showed that the overall mean score for teacher support is 2.72, which falls under the verbal interpretation of "High," with a standard deviation of 1.05. Among the three indicators of teacher support, teacher-student relationship received the highest mean score of 3.47 (Very High), followed by perception of the teacher with a mean of 2.76 (High), and emotional support and availability with a mean of 2.30 (High).

The overall mean score for academic success is 3.47, which was interpreted as "Very High," with a standard deviation of 0.72. Among its indicators, self-perceived academic competence yielded the highest mean of 3.64 (Very High), followed by academic challenges with a mean of 3.36 (High) and academic support-seeking behaviour with a mean of 2.45 (High).

TABLE 2. Academic support-seeking behavior

|  |  |
| --- | --- |
| **Independent Variable** | **Academic Success** |
| **r-value** | **p-value** | **Decision on Ho** | **Interpretation** |
| **Teacher Support** | 0.005 | 0.96 | Accept | Not Significant |

A Pearson Product-Moment Correlation was conducted to determine the relationship between teacher support and academic success among hearing-impaired students. The analysis yielded a correlation coefficient of r = 0.005, with a p-value of 0.96. This result indicated a very weak positive correlation between the two variables. Given that the p-value exceeds the 0.05 level of significance, the null hypothesis is retained. Therefore, there was no statistically significant relationship between teacher support and academic success among hearing-impaired students in this study.

The statistical analysis revealed that the computed r-value of 0.005 indicated a very weak correlation between teacher support and academic success. The corresponding p-value of 0.96 was greater than the significance level, leading to the decision to accept the null hypothesis. Therefore, the relationship between teacher support and academic success was not statistically significant. Despite the high mean scores reported for both teacher support and academic success, the lack of statistical significance suggested that other factors may influence academic success among hearing-impaired students outside of teacher support as measured in this study.

**Discussions**

The results in Table 1 show that hearing-impaired students perceive a high level of teacher support, with a mean score of 2.72 and a verbal interpretation of "High." Among the three indicators, teacher-student relationship received the highest mean of 3.47, described as "Very High." This suggests that students benefit greatly from personal connections with their teachers, reflecting the significance of relational dynamics in inclusive settings. These findings are consistent with Vygotsky’s Social Interaction Theory, which emphasizes that learning is shaped through interaction with more knowledgeable individuals. Cheng et al. (2021) also support this idea, showing that higher levels of school-based social support lead to greater engagement among deaf and hard-of-hearing (DHH) students. In a related study, Bali (2023) found that using visual teaching materials improved participation and comprehension among hearing-impaired pupils. These examples highlight the importance of equipping teachers with inclusive strategies to enhance student involvement and learning.

Despite the strong positive perception of teacher support and academic success, Table 2 indicates that there was no statistically significant relationship between the two variables. The correlation coefficient was only r = 0.005, with a p-value of 0.96. This means that while students may feel supported by their teachers, this alone may not be sufficient to influence academic performance. According to Vygotsky’s theory, learning is not limited to teacher influence alone but also involves broader social interaction. This idea is echoed in Muitu et al. (2024), who demonstrated that peer tutoring and collaborative learning strategies helped improve the academic performance of students with hearing impairments. Aldawoud (2025) similarly stressed that increasing peer engagement and using structured social practices can positively affect both academic and social outcomes. These findings suggest that a well-rounded approach is essential—one that supports not only teacher-student relationships but also peer interactions and the overall inclusiveness of the school environment.

CONCLUSION

This study concluded that there was no statistically significant relationship between teacher support and the academic success of hearing-impaired students. Although both variables yielded high mean ratings, the correlation analysis suggested that the perceived presence of teacher support was not independently influencing academic success within the sample group. As such, the findings do not support the assumptions of Vygotsky’s Social Interaction Theory in this context. The anticipated scaffolding effect, wherein teacher-student interaction enhanced cognitive development and academic performance, was not statistically observed. Instead, the results pointed toward a multifaceted educational environment in which academic outcomes were influenced by a broader spectrum of interacting factors beyond teacher support alone. This complexity warrants further inquiry into complementary domains that may better explain academic success among hearing-impaired learners.

In light of the findings, it was recommended that educational institutions strengthen their inclusive education frameworks by institutionalising teacher training programs focused on deaf education and differentiated instruction. Teachers should be equipped with multimodal, linguistically accessible strategies—including visual aids, Filipino Sign Language (FSL), captioned content, and assistive devices—to address the diverse needs of hearing-impaired students. Curricular materials must also be reviewed to ensure adaptability to the communication and cognitive profiles of these learners. Moreover, inclusive education policies must go beyond compliance and aim for genuine engagement by incorporating systemic support structures that involve families, peers, and community-based resources. Collaboration among educators, administrators, policymakers, and advocacy groups was essential to develop sustainable and culturally responsive educational practices. For future researchers, the lack of a statistically significant correlation in this study highlighted the need to explore additional or intersecting variables that may better account for academic success among hearing-impaired students. These may include learner self-efficacy, family involvement, classroom accessibility, socioeconomic background, institutional support systems, and student motivation. Researchers were also encouraged to employ mixed-methods approaches to capture both quantitative trends and qualitative insights into the lived experiences of hearing-impaired learners, while longitudinal studies may provide a clearer understanding of how support structures influence academic trajectories over time. By approaching future investigations with a more holistic and multidimensional lens, scholars and educators can better contribute to building inclusive, effective, and empowering learning environments for all.

Consent

As per international standards or university standards, Participants’ written consent has been collected and preserved by the author(s).

**COMPETING INTERESTS DISCLAIMER:**

Authors have declared that they have no known competing financial interests OR non-financial interests OR personal relationships that could have appeared to influence the work reported in this paper.

Disclaimer (Artificial intelligence)

Option 1:

Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc.) and text-to-image generators have been used during the writing or editing of this manuscript.

**References**

Aldawoud, A. (2025). Identifying Research-Based Practices for Increasing Peer Interaction in Children with Hearing Impairment: A Review of the Literature. The International Journal for Research in Education, 49(1), 286–317. <https://doi.org/10.36771/ijre.49.1.25-pp-286-317>

Ang, R. P., Ong, S. L., & Li, X. (2020). Student Version of the Teacher–Student Relationship Inventory (S-TSRI): Development, Validation and invariance. *Frontiers in Psychology*, *11*. <https://doi.org/10.3389/fpsyg.2020.01724>

Bajenioa, D. R., Cagape, W. E., Gallegod, N. D., & Gadingane, R. F. (2020). Teaching Accommodations: The Experiences of Teachers Handling Learners with Hearing Impairment. *International Journal of Research Publications*, *67*(1), 87-98.

Bali, T. (2024). Enhancing Engagement of Hearing-impaired Pupils in Inclusive Tanzanian Classrooms through Teaching and Learning Materials. www.academia.edu. <https://www.academia.edu/124084100/Enhancing_Engagement_of_Hearing_impaired_Pupils_in_Inclusive_Tanzanian_Classrooms_through_Teaching_and_Learning_Materials>

Bowen, S. K., & Probst, K. M. (2023). Deaf and Hard of Hearing Students with Disabilities: An Evolving Landscape. Education Sciences, 13(7), 752. https://doi.org/10.3390/educsci13070752

Challinor, P. (2025, March 4). Position Paper on Inclusive Education. World Federation of the Deaf. https://wfdeaf.org/resources/wfd-position-paper-on-inclusive-education/

Collins, L. (2007). Research design and methods. In *Elsevier eBooks* (pp. 433–442). <https://doi.org/10.1016/b0-12-370870-2/00162-1>

Cheng, S., Deng, M., & Yang, Y. (2020). Social support and student engagement among Deaf or Hard-of-Hearing students. Communication Disorders Quarterly, 43(1), 15–22. https://doi.org/10.1177/1525740120950638

Creswell, J. W., & Creswell, J. D. (2017). Research design: Qualitative, quantitative, and mixed methods approaches. Sage publications.

Degtyaryova, V., & Zhdanova, I. (2023). Designing a Sociocultural Educational Environment for Students with Hearing Impairment. Psychological Science and Education, 28(6), 62–69. https://doi.org/10.17759/pse.2023280606

Donayre, S. M., & Villarente, S. V. D. (2025). *Best Practices of the Regular Teachers Handling Students with Hearing Impairments*. <https://econpapers.repec.org/article/bcpjournl/v_3a9_3ay_3a2025_3aissue-3_3ap_3a1474-1485.htm>

Dovetail Editorial Team. (2023, February 5). *Descriptive research: design, methods, examples, and FAQs*. https://dovetail.com/research/descriptive-research/

DuPaul, G. J., Rapport, M. D., & Perriello, L. M. (1991). Teacher Ratings of Academic skills: The development of the Academic Performance Rating Scale. *School Psychology Review*, *20*(2), 284–300. https://doi.org/10.1080/02796015.1991.12085552

Edgar, T. W., & Manz, D. O. (2017). Descriptive study. In *Elsevier eBooks* (pp. 131–151). <https://doi.org/10.1016/b978-0-12-805349-2.00005-4>

Hartman, M. C., Smolen, E. R., & Powell, B. (2023). Curriculum and Instruction for Deaf and Hard of Hearing Students: Evidence from the Past—Considerations for the Future. Education Sciences, 13(6), 533. https://doi.org/10.3390/educsci13060533

Hrastinski, I., & Wilbur, R. B. (2016). Academic achievement of Deaf and Hard-of-Hearing students in an ASL/English bilingual program. *The Journal of Deaf Studies and Deaf Education*, *21*(2), 156–170. https://doi.org/10.1093/deafed/env072

IJTSRD. (n.d.). *Parental Involvement and Self-Efficacy in Helping Learners with Special Educational Needs Succeed in School - Repository Universitas Muhammadiyah Sidoarjo*. <http://eprints.umsida.ac.id/id/eprint/15676>

Muitu, Y. O., Sadia, A. A., Oluwabunmi, O. A., Motunrayo, A. A., & Ayobami, O. I. (2024, November 14). Effect of Peer Tutoring and Brainstorming Strategies on the Academic Performance of Students with Hearing Impairment in Economics in Oyo State, Nigeria. <https://journal.univerpublishing.org/index.php/synergy/article/view/3253>

Ndibalema, P. (2025). Perspectives on barriers to learning opportunities among deaf children in Tanzania. International Journal of Educational Research Open, 9, 100468. https://doi.org/10.1016/j.ijedro.2025.100468

Paga, A. (2023). PROBLEMS ENCOUNTERED AMONG CHILDREN WITH HEARING IMPAIRMENT (CHIS) AT SPECIAL EDUCATION CENTER (SPED) TOWARDS ACADEMIC ACHIEVEMENT. International Research Journal of Modernization in Engineering Technology and Science. <https://doi.org/10.56726/irjmets47368>

Philippine News Agency. (2023, March 16). DepEd welcomes signing of Inclusive Education Act. https://www.pna.gov.ph/index.php/articles/1169807

Schober, P., Boer, C., & Schwarte, L. A. (2018). Correlation Coefficients: appropriate use and interpretation. Anesthesia & Analgesia, 126(5), 1763–1768. <https://doi.org/10.1213/ane.0000000000002864>

Te Molder, B. (2024). The Differences in Differentiated Instruction for Students with Disabilities. University of Twente. Retrieved from essay.utwente.nl/101337

Wafudu, S. J., Kamin, Y. B., & Marcel, D. (2022). Validity and reliability of a questionnaire developed to explore quality assurance components for teaching and learning in vocational and technical education. *Humanities and Social Sciences Communications*, *9*(1). https://doi.org/10.1057/s41599-022-01306-1

World Health Organization. (2021). World report on hearing. https://www.who.int/publications/i/item/world-report-on-hearing