



## The Role of Social Interactions in Academic Satisfaction Among D/Deaf and Hard-of-Hearing (HOH) Students

Maribell F. Tero-Dagdag<sup>1</sup>, Michelle R. Abalo<sup>2</sup>, Catherine Q. Canape<sup>3</sup>, Rosein A. Ancheta Jr.<sup>4</sup>, Reylan G. Capuno<sup>5</sup>, Regina E. Sitoy<sup>6</sup>, Irene O. Mamites<sup>7</sup>, Randy C. Mangubat<sup>8</sup>, Emerson D. Peteros<sup>9</sup>, Ireneo M. Taperla<sup>10</sup>, Janine Joy Tenerife-Cañete<sup>11</sup>

<sup>1</sup>Junior Highschool Academic Coordinator and Araling Panlipunan Area Coordinator, Colegio del Santo Niño, Cebu City, Philippines

<sup>2</sup>Head Teacher, Designated Teacher for Learners w/ Special Needs, Mind-Power Creativity Center, Inc, Talisay City, Cebu, Philippines

<sup>3</sup>Alternative Learning System (ALS) Mobile Teacher, Carcar City, Cebu, Philippines

<sup>4</sup>President, Cebu Technological University-Main Campus, Cebu City, Cebu, Philippines

<sup>5</sup>VP Academic Affairs and Dean, College of Education, Cebu Technological University-Main Campus, Cebu City, Cebu, Philippines

<sup>6-11</sup>Faculty, Graduate Teacher Education, Cebu Technological University-Main Campus, Cebu City, Cebu, Philippines

Corresponding Author: Maribell F. Tero-Dagdag

*(Received: 04 February 2024*

*Revised: 11 March 2024*

*Accepted: 08 April 2024)*

### KEYWORDS

Academic Satisfaction, Cebu Technological University, d/Deaf and Hard-of-hearing, Descriptive-Correlational, Instructional Support, Purposive Sampling, Social Interaction, Cebu, Philippines

### ABSTRACT:

This descriptive correlational study aimed to describe the demographics, level of social interaction, academic satisfaction, and the relationship between social interaction and satisfaction among d/Deaf and hard-of-hearing (HOH) students. The study purposively sampled 64 respondents, with 34 females (53.13%) and 30 males (46.88%), ranging from 18 to above 24 years old. Most of the respondents' mothers (46.88%) and fathers (39.06%) attained a college level of education. More than half (58.26%) had 3-5 siblings. The majority (85.94%) were d/Deaf. Results showed that respondents had high levels of social interaction with their family ( $M=3.85$ ), teachers ( $M=3.75$ ), hearing students ( $M=3.75$ ), and peers ( $M=3.78$ ), with an overall grand mean of 3.78, indicating high social interaction. They also expressed satisfaction in terms of teaching ( $M=3.74$ ), assessment ( $M=3.63$ ), and generic skills and learning experiences ( $M=3.84$ ), with an overall grand mean of 3.74, showing satisfaction. A Pearson's  $r$  (correlational coefficient) statistical test revealed a strong positive correlation ( $r=0.847$ ) between social interaction and satisfaction, and the relationship was found to be significant ( $p=0.000$ ). This implies that social interactions were important in influencing the academic satisfaction of d/Deaf and hard-of-hearing students. The findings provide insights that can aid in developing support programs to enhance d/Deaf and hard-of-hearing students' educational experiences. Instructional support can be provided to facilitate peer interactions further and improve learning experiences through additional academic and social resources.

### Introduction

It is important to understand the challenges d/Deaf and hard-of-hearing students face in their educational experiences (Tanure Alves et al., 2024). Factors like communication barriers, social interactions, classroom environment, and teacher understanding of disabilities can significantly impact their participation, development, and well-being. In the Philippines,

providing inclusive education is emphasized however d/Deaf and hard-of-hearing students still face obstacles in forming relationships and overcoming isolation (Mendoza et al., 2023; Manalaysay, 2021). At Cebu Technological University-Main Campus, these students encounter additional struggles navigating both their academic and social lives. Their experiences often require resilience as they balance inclusion with



feelings of alienation due to interactions and relationships.

This study aims to delve deeper into the relationship between the social connections and daily struggles encountered by d/Deaf and hard-of-hearing (HOH) students. Through exploring real narratives and experiences, the research seeks to uncover patterns around challenges as well as opportunities to develop more inclusive practices. Recognizing the pivotal role of social bonds in students' lives will provide valuable insight into how to better support their overall achievement and well-being (Zheng, 2021). It is crucial to approach this topic with an open and understanding perspective to amplify voices and identify practical solutions through collaborative dialogue.

Gaining a comprehensive view of how social interactions intersect with the struggles of d/Deaf and hard-of-hearing (HOH) learners will be invaluable for developing meaningful strategies. Nurturing an empathetic and supportive learning environment is a moral imperative and strategic investment that celebrates student diversity and strengths (Reid, 2022). This study discusses the importance of understanding the challenges faced, the relationship between social bonds and struggles, and seeking opportunities to promote inclusion.

Materials and Methods

Respondents

The study involved 64 purposively sampled d/Deaf and hard-of-hearing (HOH) students from Cebu Technological University-Main Campus enrolled in the Computer Technology or Food Technology program. Table 1 presents the summary distribution of respondents.

Table 1  
Summary Distribution of Respondents

Major	1 <sup>st</sup> Year		2 <sup>nd</sup> Year		Total	
	f	%	f	%	f	%
Computer Technology	22	34.38	11	17.19	33	51.56
Food Technology	22	34.38	9	14.06	31	48.44
Total	44	68.75	20	31.25	64	100.00

As shown above, the majority belonged to the 1st year level, comprising 44 students or 68.75% of the total respondents. Of these, 22 students (34.38%) were from Computer Technology while the other 22 (34.38%) were from Food Technology. The remaining 20 respondents or 31.25% were 2nd year students, specifically 11 students (17.19%) from Computer Technology and 9 students (14.06%) from Food Technology. In summary, Computer Technology majors comprised the largest group with 33 students representing 51.56% of respondents. Meanwhile, Food Technology accounted for 31 students or 48.44% of the total.

Instrument

This study employed two distinct data collection instruments. The primary instrument was a social interaction survey developed by Tenerife et al. (2021) to examine the social dynamics experienced by the target population. A secondary instrument adapted from Fieger (2012) measured satisfaction with learning experiences. Building upon these two source instruments, the research questionnaire developed for this study contained three key components. The first captured respondents' demographic profiles, including variables such as age, education, number of siblings, and hearing ability. The second part assessed levels of social interaction with family, teachers, hearing peers, and classmates. The third part evaluated satisfaction regarding teaching quality, assessment practices, and skill development outcomes. Both the second and third parts utilized a 5-point Likert scale response format. Prior to administration, a pilot test validated the questionnaire's reliability and accuracy in measuring the intended constructs. This validation process ensured the instrument could precisely capture the desired data.

Responses were scored on a structured scale to facilitate interpretation. Regarding social interaction, scores from 4.21–5.00 signified "Very High" levels, 3.41–4.20 represented "High," and so on. Satisfaction levels followed a similar framework, categorized as "Highly Satisfied" for 4.21–5.00 scores, "Satisfied" for 3.41–4.20, and the remaining options. This nuanced scoring scheme allowed for a deeper understanding of respondents' lived experiences, enhancing the depth of findings.



## Procedure

The data-gathering procedure involved three stages: the preliminary stage, the data-gathering stage, and the post-data-gathering stage.

1. Preliminary Stage. First, permission was obtained from the Dean of Graduate Studies and the research adviser through a signed letter of authorization before data collection. Written informed consent was acquired from participants ensuring confidentiality and right to withdraw. A protocol maintaining the confidentiality of information was established. Prior to data collection, respondents were briefed and clarified about the study's goals and processes.
2. Data Gathering Stage. Upon receiving the required permissions, questionnaires were personally distributed to respondents on scheduled dates. Accommodations were made for the needed guidance during administration. Completed questionnaires were promptly retrieved.
3. Post Data Gathering Stage. Finally, gathered data were organized, tabulated, analyzed, and interpreted using appropriate statistical methods.

## Statistical Analysis

To analyze the survey data collected using a three-stage procedure, descriptive and inferential statistical techniques were employed. Frequencies, percentages, means, and standard deviations characterized respondents' demographic profiles (gender, parents' highest educational attainment, number of siblings, degree of hearing loss) and their reported levels of social interaction and academic satisfaction, summarizing these characteristics.

Pearson's correlation coefficient ( $r$ ) was then computed to determine the relationship between social interaction and academic satisfaction. This inferential analysis examined if variation in one variable was associated with the other.

By systematically applying both descriptive analysis and Pearson's  $r$ , objective insights into perspectives and correlations between variables could be established from the 5-point Likert scale survey responses. Interpreting frequencies alongside Pearson's  $r$  results provided meaningful conclusions about factors relating to students' experiences. The rigorously applied statistical methods yielded valuable findings for understanding challenges and improving support services.

## Results

This section presents the results of the quantitative analysis and examination of the relationships between social interactions and academic satisfaction among d/Deaf and hard-of-hearing (HOH) students of Cebu Technological University-Main Campus. Data from the respondent profiles, levels of social interaction, academic satisfaction, and correlation between social interaction and satisfaction variables are discussed.

### *Profile of Respondents*

The majority of respondents were between 22-23 years old, with nearly equal representation of males and females. Over 45% of parents attained a college degree or higher. Most common household size was 1-2 siblings. Notably, 85.94% experienced deafness.

### *Level of Social Interaction*

Across relationships with family, teachers, hearing students, and peers, the average interaction level was described as "High". While no group scored below this, communicating problems with family averaged slightly lower. Overall, engagement across components was high.

### *Level of Satisfaction with Learning Outcomes/Academic Satisfaction*

Respondents reported feeling "Satisfied" on average regarding teaching, assessment, and skills development. No area dipped below this threshold. Satisfaction with skills development scored highest. Overall satisfaction was also high.

### *Significant Relationship of Social Interaction and Academic Satisfaction*

A statistically significant strong positive correlation was found between social interaction and academic satisfaction levels. Higher interaction related to greater satisfaction and vice versa.

## Discussion & Conclusion

### Discussion

#### *Profile of the Respondents*

1. Age and Gender. The results provided insights into 64 d/Deaf and hard-of-hearing (HOH) respondents. As Table 2 displayed, over a third (37.5%) were aged 22-23, representing the peak undergraduate years. Near gender parity existed at 46.88% male and 53.13% female.



Table 2

Age and Gender of the Respondents

Age (in years)	(in)	Female		Male		Total	
		f	%	f	%	f	%
24 and above		6	9.3	11	17.1	17	26.56
22-23		12	18.75	12	18.75	24	37.50
20-21		9	14.06	4	6.25	13	20.31
18-19		3	4.69	2	3.13	5	7.81
Failed to Respond		4	6.25	1	1.56	5	7.81
Total		34	53.13	30	46.88	64	100.00

Age is a fundamental demographic variable that often play a significant role in various aspect of life while gender is fundamental aspect of identity that influence social interaction experiences of the deaf and hearing participants (Nicastri et al., 2024; Turkestani, 2022; Nicastri et al., 2021)

2. Parents’ Highest Educational Attainment. Parental educational attainment per Table 3 showed 46.88% of mothers and 39.06% of fathers achieved college graduation levels, signaling a supportive learning environment for many respondents.

Table 3

Parents’ Highest Educational Attainment

Educational Attainment	Mother		Father	
	f	%	f	%
Doctorate Degree	0	0.00	1	1.56
With Doctorate Units	0	0.00	0	0.00
Master’s Graduate	1	1.56	0	0.00
With Master’s Units	1	1.56	1	1.56
College Graduate	30	46.88	25	39.06
College Level	4	6.25	6	9.38
High School Graduate	17	26.56	13	20.31
High School Level	1	1.56	5	7.81
Elementary Graduate	2	3.13	0	0.00
Elementary Level	6	9.38	6	9.38
No Response	2	3.13	7	10.94
Total	64	100.00	64	100.00

Parents' educational background can play a significant role in shaping deaf children's social experiences, educational satisfaction, and overall well-being (Aftab et al., 2023). Those whose parents have completed college may have increased access to information, support, and social engagement opportunities, improving their interactions. A higher level of parental education is also often associated with greater socioeconomic resources that can facilitate engagement (Davis-Kean et al., 2021). Furthermore, college-educated parents tend to place a high value on education and can serve as positive role models. They are better positioned to provide deaf children with outstanding educational experiences and avoid academic stagnation, while also accessing more educational opportunities themselves to support their children (Ecker-Lyster et al., 2021). Therefore, to effectively develop interventions and support strategies, it is important to understand the impact parental education attainment has on deaf youths' social inclusion, as college-educated parents may enhance accessibility to resources, interactions, and life prospects.

3. Number of Siblings. When considering household sizes from Table 4, over one-third (35.94%) came from homes with 1-2 siblings, while 28.13% respectively resided in families with 3-4 or 5 or more children.

Table 4

Number of Siblings of the Respondents

Number of Siblings	f	%
5 and above	18	28.13
3-4	18	28.13
1-2	23	35.94
None	5	7.81
Total	64	100.00

Sibling relationships significantly impact deaf children's social and academic experiences (Warner-Czyz et al., 2021). Siblings often serve as communication partners, supporters, and sources of assistance, helping reduce understanding gaps by encouraging communication. They advocate for inclusion at home, school, and in the community. Close sibling bonds frequently form, providing emotional backing that enhances deaf youth's social well-being and educational satisfaction through shared experiences



and motivation contributing to success and overall wellness (Gardner-Bixler, 2023). However, unhealthy sibling dynamics can damage stability and compromise needed support, while positive relationships enrich interaction and achievement for deaf and hard of hearing students.

4. Degree of Hearing Loss. Most notably from Table 5, a large majority (85.94%) experienced deafness, validating the relevance of exploring this group's experiences.

Table 5

Degree of Hearing Loss of the Respondents

Degree of Hearing Loss	f	%
Deaf	55	85.94
Hard-of-hearing	9	14.06
<b>Total</b>	<b>64</b>	<b>100.00</b>

The d/Deaf and hard-of-hearing (HOH) students with speech, learning, and language disorders face inherent challenges that can impede their educational progress, falling under the category of low-incidence disorders (Blunsum, 2024). These individuals, characterized by communication differences that make hearing and speaking difficult, are less commonly found in educational settings and may have disabilities present from birth or acquired later in life, varying in severity from mild to profound. Such disabilities can result in temporary, permanent, or life-threatening impairments, necessitating specialized care and support as exceptional learners within the school environment.

5. Summary of Respondent Profile. These respondent profile characteristics provide meaningful backdrop for analyzing their social interactions and studies. Those in standard college-aged brackets could readily engage learning and relationships. Near gender balance increases generalizability. Over 45% of parents attaining college signals awareness of postsecondary options. Households commonly had 1-2 or 3-4 children, facilitating focused support.

However, the high proportion (85.94%) experiencing deafness underscores unique challenges addressed. This comprehensive profile substantiates how demographics may shape perspectives and performance, allowing deeper insight into enhancing support services.

Level of Social Interaction

Table 6 presented the mean scores for levels of social interaction among the 64 respondents across different relationship components. Family received the highest mean of 3.85, described as high interaction. Teachers and hearing students both achieved means of 3.75, also characterized as high interaction. Peers followed closely at 3.78, in the same high interaction category. The overall grand mean was 3.78, described verbally as high social interaction levels among the sampled respondents.

Table 6

Summary on the Level of Social Interaction of the Respondents

Components	WM	Verbal Description
Family	3.85	High
Teachers	3.75	High
Hearing Students	3.75	High
Peers	3.78	High
<b>Grand Mean</b>	<b>3.78</b>	<b>High</b>

The findings provide valuable insight into the social experiences of these d/Deaf and hard-of-hearing (HOH) students. Most notably, interaction was highest on average with family members, reflective perhaps of the inherent close bond between most families. Scoring only slightly lower yet still high was interaction with teachers and hearing students. This denotes generally positive involvement and inclusion with instructors and across diverse learners. Peers only slightly trailed these other categories.

Notably, no relationship component fell below the high descriptor. This signifies the respondent group excelled in social engagement across. However, there may be an opportunity to investigate what supports such elevated interaction, and how these can be strengthened or applied more broadly for others facing communication barriers. Also, This indicated the respondents enjoyed rich social lives leveraging varied relationships.

Family plays a crucial role in the academic success of d/Deaf and Hard-of-Hearing (HOH) college students, as research supports that parental involvement in education





programs is linked to enhanced language development, early reading skills, and social-emotional growth for deaf children, helping them achieve learning success despite challenges (Szarkowski et al., 2024). Several study participants expressed how distracting their classmates' movements can be, validating notions that deaf and hard-of-hearing people are easily distracted by small things (Schumm & Keel, 2023). It is therefore important, for families of d/Deaf and hard-of-hearing individuals to fully understand and support their unique circumstances in navigating distraction-heavy learning environments (Szarkowski et al., 2024). Families must appreciate the difficulties faced and be powerful ingredients in their deaf/hard-of-hearing family members' learning journeys in college through involvement and tailored support.

*Level of Satisfaction of Learning Objectives/Academic Satisfaction*

Table 7 presented mean scores on respondents' satisfaction levels regarding different academic components. Teaching received a mean of 3.74, described as satisfied. Assessment followed closely at 3.63, also in the satisfied range. Generic skills and learning experiences attained the highest mean of 3.84, characterized as satisfied. The overall grand mean was 3.74, verbally described as satisfied.

**Table 7**  
Summary on the Level of Satisfaction of the Respondents of their Learning Outcomes

Components	W M	Verbal Description
Teaching	3.7 4	Satisfied
Assessment	3.6 3	Satisfied
Generic Skills and Learning Experiences	3.8 4	Satisfied
<b>Grand Mean</b>	<b>3.7 4</b>	<b>Satisfied</b>

Analysis of Table 7 revealed respondents generally felt satisfied with their learning outcomes across components. Their highest approval was directed toward development of skills and experiences, pointing to a supportive curriculum. Slightly lower yet still

satisfactory ratings for teaching and assessment show instructors strived to effectively impart knowledge through multiple modalities.

Notably, no category dipped below the satisfied threshold. This indicates coursework well-accommodated respondents' needs. However, assessment achieved the lowest individual mean, implying potential for strengthening evaluation methods tailored to diverse learners. Attaining satisfied ratings verifies the institution facilitated positive academic experiences and progress. But continual enhancement, especially of assessment practices, merits investigation to optimize benefits for all students.

Learning experiences and training of d/Deaf and Hard-of-Hearing (HOH) students do impact their development of important skills. A key finding in this study by Wainscott (2024) is that coursework effectively helped students strengthen their ability to work in teams and plan their work, important soft skills for both academic and professional contexts. It is promising that training also positively influenced students' confidence in tackling new problems and achieving goals, traits that can enable them to reach their full potential (Mohamad & Sudana, 2024). While assessment satisfaction scored slightly lower, it still indicated students felt certification of their understanding was fair and adequately supported. These outcomes suggest the curriculum successfully provided applied learning opportunities as well as support for students to navigate difficult tasks. The methodology employed has thus shown the capacity to instill resilient qualities and self-directed learning abilities in d/Deaf and Hard-of-Hearing (HOH) students. The results point to the vital role of hands-on, scaffolded learning experiences in empowering d/Deaf and Hard-of-Hearing (HOH) students with competencies critical for continued growth and achievement within and beyond the classroom setting.

*Significant Relationship of Social Interaction and Academic Satisfaction*

Table 8 presented the results of Pearson's r correlation analysis conducted to determine the relationship between social interaction and satisfaction levels reported by respondents.



Table 8

Test of Significant Relationship between the Social Interaction and Satisfaction of the Respondents

Variables	r-value	Strength of Correlation	P-value	Decision	Result
Social Interaction and Satisfaction	0.847*	Strong Positive	0.000	Reject H <sub>0</sub>	Significant

\*significant at  $p < 0.05$  (two-tailed)

A positive r-value of 0.847 indicates a strong positive correlation was found between the two variables. With a p-value of 0.000, which is less than the significance level of 0.05, the null hypothesis is rejected. The strong positive correlation suggests that as social interaction increased, satisfaction tended to increase as well, and vice versa. This key finding implies the more respondents engaged with others through varied relationships, the happier they felt about their learning experiences and outcomes. Interpersonal connections seemingly played a sizable role in fostering contentment. Moreover, the correlation was significant, strengthening confidence in this relationship. The results highlight the value of cultivating a welcoming environment that supports all students' social integration and involvement. Facilitating rich interactions may help boost satisfaction and persistence for d/Deaf and hard-of-hearing (HOH) students.

The quality of social interactions experienced by d/Deaf and hard-of-hearing (HOH) students has a measurable impact on their overall satisfaction with their academic experience (Leigh et al., 2022). A significant relationship between social interaction and academic satisfaction levels among d/Deaf and hard-of-hearing (HOH) college students was observed through statistical analysis, indicating social bonds and life struggles are meaningful predictors of satisfaction, as supported by the study of Blakeney-Billings (2023). In other words, promoting d/Deaf children's success requires understanding factors that affect their happiness with social interactions. The results emphasize the crucial role social interaction plays in shaping satisfaction levels and well-being within educational settings.

Comprehending this relationship can guide strategies and interventions aimed at improving the social environment and support systems for deaf students, enabling them to seek fulfillment despite obstacles through connecting with others.

Conclusion

This study provided meaningful insights into developing a more inclusive learning environment for d/Deaf and hard-of-hearing (HOH) students.

The respondents' profile characterization established an important demographic context, which indicated most respondents were typically university-aged, with near gender parity. Over 45% of parents attained college, signifying supportive home environments. Households commonly had 1-2 or 3-4 children. Critically, 85.94% experienced deafness, validating the focus on this group.

Analysis of social interaction uncovered high engagement levels across. Interaction was highest with family, followed closely by teachers/hearing peers. No relationship fell below high, revealing rich social lives. However, further examining supports for elevated interaction could guide outreach.

Regarding satisfaction with learning objectives or academic satisfaction, the respondents felt satisfied overall. The highest approval involved skills/experiences, with teaching/assessment slightly lower yet satisfactory. No category dipped below satisfied, highlighting accommodating coursework. Though assessment achieved the lowest mean, implying possible adjustments.

Moreover, a very strong positive correlation existed between social interaction and satisfaction. Increased engagement related directly to happier experiences/outcomes. Interpersonal connections fostered contentment academically.

While respondents demonstrated generally high social engagement and satisfaction, the findings indicate areas where additional resources could optimize benefits. Cultivating even more welcoming communities that strongly facilitate diverse interactions may further boost academic outcomes and retention. Instructional support can be provided to facilitate peer interactions further and improve learning experiences through additional academic and social programs. Focused efforts to augment assessment accommodations, for example,



may strengthen evaluation methods tailored to special needs.

Continual enhancement of existing services, particularly in cultivating rich social integration across diverse learners, could be achieved through intervention plans. Establishing new instructional and engagement initiatives based on these findings have the potential to enhance d/Deaf and hard-of-hearing (HOH) students' educational experiences. With the implementation of contextualized programming, their needs and contributions may be more fully supported and celebrated within inclusive learning environments.

## Acknowledgement

The researchers would like to acknowledge several contributions that were integral to the successful completion of this study. Valuable guidance was provided by the thesis advisory committee, including committee chair Dr. Rosein A. Ancheta Jr. and members Dr. Reyland G. Capuno, Dr. Regina E. Sitoy, Dr. Irene O. Mamites, Dr. Randy Mangubat, Dr. Emerson D. Peteros, Dr. Ireneo M. Taperla, and Dr. Janine Joy Tenerife-Cañete. Assistance with participant recruitment and data collection procedures was also received from Cebu Technological University-Main Campus. Most significantly, the study would not have been possible without the participation of d/Deaf and hard-of-hearing (HOH) students from CTU-Main, who generously provided their perspectives through completing study measures. The researchers hope that the findings from this research can help inform support programs aimed at enhancing the educational experiences of d/Deaf and hard-of-hearing (HOH) learners at the CTU system, and elsewhere. The insights gained are a result of the collaborative efforts between advisory faculty, the coordinating institution, and contributing student participants.

## Conflict of Interests

The authors declare no conflict of interest.

## Ethical Approvals

Approval for this study was granted by the Cebu Technological University-Main Campus Thesis Advisory and Approving Committee and the university representatives before commencement. Informed consent was obtained from all participating students

who were informed of the purpose of the study and its procedures, their voluntary participation, and their right to withdraw without penalty. Confidentiality and privacy were strictly maintained through de-identification of data for publication and presentation under ethical standards for human subjects research.

## References

1. Aftab, M. J., Ali, H. H., Bashir, R., Munir, F., Naqvi, R., & Rehman, N. U. (2023). Unveiling the Significance of Parental Involvement in Supporting Children with Hearing Impairment in Education: A Parental Perspective. *OEconomia*, 6(2), 378-392. Retrieved from <https://oeconomiajournal.com/index.php/Journal/article/view/85>
2. Blakeney-Billings, D. (2023). The Relationship of Levels of Hearing and Course Format with Course Satisfaction: A Predictive Correlational Study. Retrieved from <https://digitalcommons.liberty.edu/doctoral/4637/>
3. Blunsum, S. (2024). The mental health of deaf children: 'Inclusion' or 'equality of experience'? *Specialist placement*, 15. Retrieved from <https://bit.ly/3JOsPf5>
4. Davis-Kean, P. E., Tighe, L. A., & Waters, N. E. (2021). The role of parent educational attainment in parenting and children's development. *Current Directions in Psychological Science*, 30(2), 186-192. Retrieved from <https://journals.sagepub.com/doi/abs/10.1177/0963721421993116>
5. Ecker-Lyster, M., Coleman-Tempel, L., Gregersen, S., & Snyder, J. (2021). A sociological examination of parenting practices and gifted education. *Gifted Child Today*, 44(4), 194-202. Retrieved from <https://journals.sagepub.com/doi/abs/10.1177/10762175211030535>
6. Fieger, P. (2012). Measuring Student Satisfaction from the Student Outcomes Survey. Technical Paper. National Centre for Vocational Education Research Ltd. PO Box 8288, Stational Arcade, Adelaide, SA 5000, Australia. Retrieved from <https://eric.ed.gov/?id=ED532394>
7. Gardner-Bixler, A. L. (2023). Sibling Relationships: A Qualitative Analysis of Typically Developing Siblings' Feelings About Play Experiences With Their Sibling With Autism Spectrum





- Disorder (Doctoral dissertation, State University of New York at Albany). Retrieved from <https://bit.ly/44CUGZu>
8. Leigh, I. W., Andrews, J. F., Miller, C. A., & Wolsey, J. L. A. (2022). Deaf people and society: Psychological, sociological, and educational perspectives. Routledge. Retrieved from <https://bit.ly/4b4xNQN>
9. Manalaysay, J. A. (2021). Public Special Education Center: Developmental inculcation of love for creating knowledge among learners with special needs. *Academic Research International*, 5(5), 28-37. Retrieved from <https://bit.ly/3wzABq6>
10. Mendoza, M. C., Geroso, M. J., & Maguate, G. S. (2023). Hearing the Unheard: Unveiling the Untold Stories of Hearing-Impaired Students in Inclusive Education. *International Journal of Latest Research in Humanities and Social Science (IJLRHSS)*, 6(8), 01-09. Retrieved from <http://www.ijlrhss.com/paper/volume-6-issue-8/1-HSS-2169.pdf>
11. Mohamad, I., & Sudana, I. W. (2024, February). Effective Learning Strategies & Media for Deaf Students in Developing Make-up Skills. In 5th Vocational Education International Conference (VEIC-5 2023) (pp. 1453-1461). Atlantis Press. Retrieved from <https://www.atlantispress.com/proceedings/veic-23/125997800>
12. Nicastrì, M., D'Alessandro, H. D., Giallini, I., D'Amico, A., Geraci, A., Inguscio, B. M. S., ... & Mancini, P. (2024). Emotional abilities in preadolescents and adolescents with long-term cochlear implant use. *International Journal of Pediatric Otorhinolaryngology*, 177, 111866. Retrieved from <https://www.sciencedirect.com/science/article/pii/S016558762400020X>
13. Nicastrì, M., Giallini, I., Amicucci, M., Mariani, L., de Vincentiis, M., Greco, A., ... & Mancini, P. (2021). Variables influencing executive functioning in preschool hearing-impaired children implanted within 24 months of age: An observational cohort study. *European Archives of Oto-Rhino-Laryngology*, 278, 2733-2743. Retrieved from <https://link.springer.com/article/10.1007/s00405-020-06343-7>
14. Reid, S. (2022). Genuine Engagement with Children: A Principal's Reflection on Creating a Learning Environment Where Equity Is Upheld, and Diversity Embraced. In *Transition Programs for Children and Youth with Diverse Needs* (Vol. 18, pp. 109-123). Emerald Publishing Limited. Retrieved from <https://www.emerald.com/insight/content/doi/10.1108/S1479-363620220000018009>
15. Schumm, M., & Keel, M. (2023). Workbook for the Use of Universal Design for Better Inclusion of People Who are Deaf/Hard of Hearing or Have Other Invisible Disabilities in Environmental Education. Retrieved from <https://bit.ly/4btMGfh>
16. Szarkowski, A., Moeller, M. P., Gale, E., Smith, T., Birdsey, B. C., Moodie, S. T., ... & Holzinger, D. (2024). Family-centered early intervention deaf/hard of hearing (FCEI-DHH): Support Principles. *Journal of Deaf Studies and Deaf Education*, 29(SI), SI64-SI85. Retrieved from <https://academic.oup.com/jdsde/article-abstract/29/SI/SI64/7616220>
17. Tanure Alves, M. L., de Souza, J. V., Grenier, M., & Lieberman, L. (2024). The invisible student in physical education classes: voices from Deaf and hard of hearing students on inclusion. *International Journal of Inclusive Education*, 28(3), 231-246. Retrieved from <https://www.tandfonline.com/doi/abs/10.1080/13603116.2021.1931718>
18. Tenerife, J. J. L., Peteros, E. D., Manreal, S. D., Pinili, L. C., de Vera, J. V., Peconillo, J. D., & Saladaga, L. S. (2021). Social interaction and academic performance of deaf and hard of hearing students in Cebu City, Philippines. *European Journal of Special Education Research*, 7(4). Retrieved from <http://oapub.org/edu/index.php/ejse/article/view/4058>
19. Turkestani, M. H. O., & Albash, N. I. A. (2022). The Role of Educational Experiences in Enhancing the Cultural Identity of Deaf and Hard-of-Hearing Undergraduate Female Students in Saudi Arabia. *SAGE Open*, 12(2), 21582440221089958. Retrieved from <https://journals.sagepub.com/doi/abs/10.1177/21582440221089958>
20. Wainscott, S. D. (2024). Building Inclusive Dispositions Within Interdisciplinary Training for Teachers of the Deaf and Speech-Language Pathologists. *Communication Disorders Quarterly*,



15257401231222870. Retrieved from  
<https://journals.sagepub.com/doi/abs/10.1177/15257401231222870>

21. Warner-Czyz, A. D., Wiseman, K. B., & Nelson, J. A. (2021). Quantitative and qualitative perspectives of siblings of children with cochlear implants. *Journal of Speech, Language, and Hearing Research*, 64(7), 2854-2869. Retrieved from [https://pubs.asha.org/doi/abs/10.1044/2021\\_JSLHR-20-00624](https://pubs.asha.org/doi/abs/10.1044/2021_JSLHR-20-00624)
22. Zheng, F. (2021). Fostering Students' Well-Being: The Mediating Role of Teacher Interpersonal Behavior and Student-Teacher Relationships. *Frontiers in Psychology*, 12. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8763970/>