Research Paper

LOVE LANGUAGE:
Effects of the Sign Language Workshop on
Social Isolation among Students with Hearing Impairment

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Abstract

Deaf students often face social isolation in public schools, where they are a small minority among predominantly hearing peers and educators. Research indicates this leads to feelings of loneliness, limited social skills, and diminished self-esteem, all of which can adversely impact their academic performance. Consequently, school administrators and teachers are legally encouraged to address this concern. Research also highlights the importance of student involvement, particularly that of student leaders, who can significantly influence their schoolmates. This study aimed to assess the ability level of the student leaders in promoting inclusivity and helping reduce isolation for deaf students. This research evaluated the effectiveness of a sign language workshop intervention among student leaders on minimizing the social isolation of hard-of-hearing students. A purposive sampling approach was used to select participants for the study, consisting of 12 student leaders from SPED High School. These participants attended the workshop and completed a pretest-posttest using the Likert Scale to assess intervention effectiveness. The gathered data were analyzed using Microsoft Excel to calculate averages and rank results. Initially, the student leaders exhibited an overall pretest mean score of 2.13, signaling a lack of confidence and skills in supporting hearing-impaired peers. Post-workshop, their capacities markedly improved, with scores rising to 4.51 for enhancing inclusivity and 4.17 for reducing social isolation. These outcomes indicate that the training successfully boosted the student leaders' confidence and understanding, equipping them with vital skills to better advocate for and support hearing-impaired peers. In conclusion, focused training programs or workshops are crucial for empowering student leaders to foster inclusivity and reduce social isolation.

Keywords: *Deaf/Hard-of-Hearing, Social Isolation, Sign Language, Student Leaders*

INTRODUCTION

Communication is the heart of leadership. As student leaders, the ability to connect with and understand diverse communities is essential in fostering inclusivity and empathy. In a world where voices come in many forms, sign language serves as a bridge to allow everyone to engage meaningfully with individuals who are deaf or hard of hearing. Communication, as defined in this context, includes verbal and nonverbal forms of interaction. (Kusumawati, 2019). Social skills, meanwhile, refer to the abilities that enable individuals to interact effectively and harmoniously with others (Little et al., 2017). These include active listening, empathy, adaptability, and the ability to interpret and respond appropriately to social cues. (Riggio, 2024) proposes a systematic framework for developing emotional and social communication skills in student leaders, emphasizing the importance of well-defined skills underlying leadership competencies. Thus, proficiency in both verbal and nonverbal communication becomes a foundational aspect of students' education, particularly for those who hold leadership roles, as they have the power to influence and advocate for inclusivity in their communities.

However, current curricula tend to emphasize verbal communication, often overlooking the value of nonverbal modalities like sign language. This education gap is particularly evident in Turkish Sign Language teaching, where "spoken-driven" approaches fail to address modality-specific requirements for hearing learners (Makaroğlu, 2022). Despite the growing emphasis on inclusive education, there remains a significant gap in training student leaders to use nonverbal communication effectively, specifically through sign language.

Despite the growing recognition of inclusive education, which offers a wide scope of opportunities for students, the focus on inclusive practices often overlooks the specific needs of student leaders in terms of nonverbal communication. This approach challenges the education sector to reimagine its strategies, ensuring that quality education is accessible not only to students without disabilities but also to those with unique characteristics, such as hearing impairments. One effective strategy in this context is the integration of sign language into classroom settings. Sign language is a visual-manual communication system primarily used by Deaf and hard-of-hearing individuals (Moradi et al., 2023). It encompasses hand gestures, facial expressions, and body movements to convey meaning. Sign language is a natural language, having its own grammar, syntax, and vocabulary. It has its own structure that the speaker must understand to convey a clear message. Moradi (2023) emphasized in his study entitled *"A Review of Sign Language Systems"* that British Sign Language has distinct grammatical features and structures- as a language, it can be dependent or connected to spoken English. A comprehensive analysis and understanding are required, as it is challenging to delve into the intricacies of sign language. However, sign language varies from one region to another, which results in distinctions in different places or regions. Sign language is not universal, contrary to common misconceptions. There are over 200 distinct sign languages worldwide, each with its own lexicon and grammar (Woll, 2019). In addition, sign languages employ various strategies for reference and depiction, combining conventional forms with more improvised semiotics. Across different sign languages, signers typically use conventional forms for new referents and less conventional strategies for maintained and reintroduced referents (Ferrara et al., 2022).

Research highlights the potential benefits of incorporating sign language in inclusive educational environments. The use of sign language in an inclusive environment can greatly contribute to the growth of both regular and hard-of-hearing students. The practice of integrating sign language promotes a supportive learning setting that allows deaf students to develop a sense of belonging. The study conducted by Goswami et al. (2020) presented results that students gained benefits such as awareness about non-verbal communication modes, mastery of basic Indian sign language, and positive views toward sign languages. These benefits also extend to student leaders, enabling them to foster a more inclusive environment and develop skills that promote empathy and effective communication in diverse settings.

Sign language has been an effective strategy utilized in the classroom to create an opportunity for deaf students to connect and form a bond with students without disabilities. Delving into the complexity of sign language and understanding is not just a matter of linguistics but also a matter of human rights and inclusivity. Many people are unable to understand or use sign language in daily interactions. With the use of gestures as a mode for their communication, the social skills of students will be enhanced and widened as they learn basic sign language, which is essential for their interpersonal skills. Gestures are an integral part of non-verbal communication as an alternative to words: They include behavior such as facial expression, eye movements, tone of voice, and hand gestures, as well as less obvious messages like dress, posture, and distance between two or more people. These gestures are all encapsulated in basic sign language that conveys messages.

Universities can play a crucial role in integrating people with disabilities into the education system by offering sign language courses. While some schools have started to incorporate sign language into their curricula as part of inclusive education efforts, there remains a significant gap in research and practice when it comes to training student leaders specifically in sign language. Current initiatives often focus on integrating sign language for general classroom use or the benefit of students with hearing impairments. In contrast, there is little emphasis on equipping student leaders with the skills needed to communicate inclusively with their peers, particularly in nonverbal modalities like sign language. In Cameroon, efforts to include students with hearing impairments in regular schools face challenges related to academic support, classroom placement, and sign language interpretation (Bamu et al., 2017). Repeated viewings of sign language materials have shown promise as an evidence-based practice for deaf and hard-of-hearing students in mainstream settings (Beal-Alvarez & Huston, 2014). However, challenges persist, such as inadequate adjustments in regular schools and communication barriers (Bamu et al., 2017; Alasim, 2018). To address these issues, strategies like proper classroom placement and improving interaction between deaf/hard-of-hearing students and their hearing peers have been proposed (Alasim, 2018). Despite the presence of these studies, there is little emphasis on equipping student leaders with the skills needed to communicate inclusively with their peers, particularly in nonverbal modalities like sign language.

Therefore, considering the aforementioned studies, the researchers seek to achieve the following:

1. Deliver an engaging lecture for student leaders on the significance of inclusive communication and its impact on fostering empathy and understanding.
2. Conduct an interactive workshop to teach basic sign language skills
3. Facilitate practical exercises that allow student leaders to demonstrate their sign language proficiency through simulated real-life scenarios.

LITERATURE REVIEW
Hearing-impaired/Deaf students

Hearing impairment denotes a disability that significantly limits a student's ability to hear and understand speech, adversely affecting their participation in classroom activities and their capacity to benefit from instruction (Plack, 2018). Students with hearing impairments face multiple challenges in inclusive educational settings, including difficulties in understanding teachers' instructions, effective communication, and engaging in classroom tasks (Kulhade & Kumar, 2022). Research indicates that some hearing-impaired students may also have learning disabilities, which can further exacerbate their academic struggles (Bunch & Melnyk, 1989, as cited in Kulhade & Kumar, 2022). To address these issues, e-learning environments have been explored as a potential solution. Nonetheless, many existing platforms do not cater to the specific needs of hearing-impaired students, underscoring the necessity for improvements (Dodandeniya et al., 2023). These findings support the broader framework of inclusive education theory, which advocates for systemic adaptation and individual accommodation in the classroom (Florian & Black-Hawkins, 2011). Studies stress that providing appropriate support and accommodations is crucial to ensuring equitable educational opportunities for hearing-impaired students in inclusive contexts (Oreshkina & Safonova, 2022).

Sign Language

As stated by the National Deaf Children's Society in 2025, sign language is a "visual language" that utilizes facial expressions, hand gestures, and body movements. Meanwhile, they also mentioned that sign language has its own grammar, structure, and vocabulary. Improving

communication skills is crucial, particularly for those who are hard of hearing. Furthermore, a study by Lucas & Valli in 2004, as cited by Clary in 2019, indicates that using sign language increases one's capacity to communicate effectively.

Moreover, research shows that in educational contexts, sign language has demonstrated benefits such as increasing students' attention and self-confidence, enhancing reading skills, and improving their on-task behaviors. Fitriyani et al. (2024) state that sign language acts as an essential means of nonverbal communication for children who have hearing impairment, building up their learning experiences and engagements with their teachers and peers.

Rather than being a supplemental tool, sign language is central to pedagogical equity, as supported by Fitriyani et al. (2024), who identified its role in enhancing reading skills, classroom engagement, and self-confidence. Silvestri and Hartman (2022). further emphasize that sign language enhances the ability of deaf and hard-of-hearing students to engage meaningfully in classroom discussions, particularly in English language settings. Furthermore, the study of Ryan et al. (2021). shows that sign language is vital in inclusive environments for reducing social isolation among deaf students in schools. Studies recommend that schools should prioritize enhancing sign language abilities and emotion regulation and encouraging positive interactions between deaf and hearing students (Travelancya, 2022). This is further supported by DepEd Order No. 44, s. 2021, which aims to provide educational services to learners with disabilities, emphasizing inclusion and fostering a welcoming atmosphere for all students, and Republic Act No. 11650, referred to as the *"Instituting a Policy of Inclusion and Services for Learners with Disabilities in Support of Inclusive Education Act,"* that enhances the existing policy on inclusion and services for students with disabilities. This situates sign language not merely as a tool of accommodation but as a core enabler of systemic inclusion.

Sign Language Workshop

Studies show that sign language workshops can be beneficial for students who are hearing as well as those who are deaf. According to Goswami et al. (2020), learning sign language enhances hearing students' cultural understanding, communication skills, and perceptions of the deaf community. It also improves reading skills, vocabulary, spelling proficiency, and self-confidence as referenced by Phan, H.D. et al. (2020). Goswami et al. (2020) claim that integrating sign language in educational contexts helps promote a comfortable and inclusive environment for both hearing and hard-of-hearing students. The use of visual representations, combined with sign language, has shown significant gains in sight word acquisition (Gallion, 2016). For deaf and hard-of-hearing students, visual aids and sign language help overcome barriers to participation and interaction in inclusive classrooms (Alasim, 2018). Effective strategies and interventions are also integral in the process of learning. As cited by Mihret and Joshi (2025), allowing learners to engage and collaborate through motivational and strategy-based approaches aligned to sign language is essential for good interventions in their learning. Scott and Hoffmeister (2017) discovered the relationship between academic English knowledge and reading fluency in speculating the reading comprehension scores of deaf students. Interactive and productive collaboration of strategies and content allows both hearing and hard-of-hearing students to socialize meaningfully.

Moreover, a study by Lapinski et al. (2015) discovered that conducting a workshop about deaf culture and basic sign language to medical students enhanced their knowledge and confidence in interacting with patients who have hearing impairment. Together, these studies point to the dual impact of sign language workshops, enhancing empathy and cross-cultural communication, and reinforcing linguistic and academic skills, particularly in multilingual or English language contexts. The collective implication across these studies points to a systemic benefit of sign language workshops not only as a learning tool but also as a medium to reframe classroom culture into one

that embraces linguistic diversity and nonverbal pedagogy.

Student Leaders

Student leaders play crucial roles in fostering inclusion within educational settings. They act as informal leaders, taking initiatives to promote inclusion and participate in decision-making processes (Hajisoteriou & Sorkos, 2022). They are instrumental in creating inclusive environments by reconceptualizing diversity, promoting inclusive culture, strengthening language support, and extending relationships beyond school boundaries (Vassallo, 2024). In higher education, leadership faces challenges in including students with disabilities, including institutional and architectural barriers (Mahlangu & Ntombela, 2021). Administrative leaders and student leaders are essential in cultivating inclusive educational environments that value diversity and promote equity for all students, especially students with disabilities. Research recommends that school leaders must examine their values and beliefs, communicate a vision of inclusion, and collaborate with others to create a welcoming school culture that positively responds to differences (Pazey & Combes, 2020). In this sense, student leaders act as both agents and embodiments of inclusive education theory. The involvement of students in inclusive school leadership is essential, as education cannot exist without educators, students, and learning objectives (Blackman et al., 2019).

Social Isolation Among Deaf Students

A range of studies on social isolation among deaf students uncovers intricate challenges within both mainstream and specialized educational environments. Deaf students frequently grapple with feelings of isolation, loneliness, and disconnection from both their deaf and their hearing peers (Kersting, 1997, as cited in Mikhailova, 2020). While they are not actively rejected, deaf students in mainstream schools often face neglect and establish fewer friendships compared to their hearing counterparts (Nunes et al., 2001, as cited by Terleksti et al., 2020). Surveys report that the reading of approximately half of deaf students in the United States was below the fourth-grade level during their high school graduation, indicating that only 7 to 10% of deaf students graduate at the grade seven level or above (Allen 1994; Traxler 2000; Cawthon 2004, as cited by Iva Hrastinski, R. Wilbur in 2016). These findings are consistent with social learning theory by Albert Bandura, which highlights the importance of social engagement and peer interaction in cognitive development. Communication challenges and a lack of familiarity with deaf culture can worsen these situations (Kersting, 1997, as cited in Mikhailova, 2020). According to Nunes et al. (2001), as cited in Edmondson & Howe (2019), these issues underscore the necessity for proactive efforts to facilitate the social integration of deaf students, including aiding hearing peers in overcoming communication barriers and promoting more affirmative attitudes toward their deaf classmates. Furthermore, Edmondson & Howe (2019) examined numerous studies on hearing loss and loneliness. Their review revealed that among the thirty-three studies analyzed, 60% (12 out of 20) indicated a link between hearing loss and loneliness, while 64.7% reported that children with hearing loss faced greater social isolation (11 out of 17). Studies suggest implementing "proactive initiatives," such as intervention programs that encourage engagement with hearing-impaired individuals and educate those without hearing loss to help minimize social isolation.

Inclusive Education in an Academic Setting

Learning becomes meaningful if it is anchored to the diverse needs of learners, most especially deaf students who are addressed but lack the quality education offered to them. Hartinez and Natividad (2024) elaborate that inclusive education aims to integrate students with disabilities into mainstream classrooms, promoting inclusive education and equal opportunities. Rapp and Corral-Granados (2021) analyzed inclusive education through the lens of Luhmann's social

systems theory to illustrate how even well-meaning institutions can reproduce exclusion through rigid structures. Integrating social constructivism, which emphasizes peer interaction and meaning-making, provides a theoretical basis for inclusive strategies. The lack of education training, inadequate facilities, and insufficient policies are a few of the identified barriers (Jardinez and Natividad) (2024). Jardinez and Natividad (2024) propose that applying Universal Design for Learning (UDL) and humanistic pedagogies allows educators to meet the unique needs of deaf students. These approaches form the theoretical scaffold for designing effective interventions in inclusive classrooms.

SYNTHESIS

Deaf and hard-of-hearing students encounter major obstacles in inclusive classrooms, including communication barriers and the possibility of co-occurring learning disabilities. Research shows that these obstacles can impede their academic involvement and social integration (Alasim, 2018). Existing e-learning platforms frequently do not meet their needs, highlighting the urgent necessity for enhanced accessibility and personalized support (Rodriguez-Correa et al., 2023). These issues are best understood through the lens of inclusive education theory and social learning theory, which jointly emphasize equity, participation, and relational learning. Research demonstrates that sign language is not merely a communication aid but a bridge to fuller engagement (Fitriyani et al., 2024; Silvestri & Hartman, 2022). The literature suggests that sign language workshops do more than improve communication—they enhance language acquisition, foster mutual understanding, and reduce social isolation, especially when paired with student leadership strategies that humanize and personalize inclusion. Workshops in sign language have shown benefits for both deaf and hearing students, fostering understanding and lessening social isolation (Lapinski et al., 2015; Karahan & Duyan, 2020).

Student leadership is key in cultivating inclusive schools. Research by Chen & Fitzgerald (2023) emphasizes that empowering student leaders to advocate for accessibility and encourage positive interactions is crucial. School leadership must actively create a warm and inclusive atmosphere, ensuring every student feels valued and supported (McLeskey & Waldron, 2015). Proactive responses to social isolation, such as inclusive training and awareness initiatives, align with the tested principles of social integration and cognitive development (Edmondson & Howe, 2019; Hankins, 2015).

Therefore, the following hypotheses are proposed for this study:
1. Participation in sign language workshops improves communication confidence among hearing and deaf students.
2. Inclusive leadership activities involving student leaders reduce social isolation among deaf students.
3. Exposure to deaf culture and sign language improves hearing students' attitudes toward inclusion.

RESEARCH METHOD

Research Design

This study employed a Pre-Test-Post-Test One-Group Design. According to Kothe et al. (2021) and Muhi et al. (2023), the pre-test post-test one-group design is under a quasi-experimental design. This research design was used to assess the effectiveness of a certain intervention. It measures the participants of a single group before and after an intervention. In this study, the researchers used a pre-test and post-test one-group design of a quasi-experimental design to determine the effect of the intervention on the dependent variable. This research design was utilized to determine the connection between the sign language workshop and the

enhancement of communication and social skills among student leaders in SPED High School.

Participants of the Study

The respondents who were involved in this study were 12 student leaders of SPED High School who were enrolled in the Academic Year 2024 -2025. The respondents were 2 student leaders from each grade level (Grades 7 to 12). These individuals hold positions of responsibility and influence, making them ideal candidates to champion inclusivity and improved communication practices throughout the school. The study utilized a purposive sampling method where participants were deliberately chosen based on certain characteristics required by the researchers (Tabotabo et al., 2024; Sulit et al., 2024).

Research Locale

The study was conducted at SPED High School at Purok Kalubihan, Barangay Daga, Cadiz City, Negros Occidental, Philippines.

Research Instrument

The researchers used a 1-5 Likert Scale survey questionnaire, which measured the level of student leaders in terms of communication and socialization before and after attending the sign language workshop (Tagarda, 2024). The instrument was composed of 10 statements and 4 open-ended questions. The pre-test measured the prior knowledge and skills of the student leaders in interacting and socializing with students with hearing impairment. The post-test, on the other hand, measured the improvement of the student leaders after participating in the intervention. In terms of validation, the researchers sought help from experienced researchers to validate the questionnaire being used.

Data Gathering Procedure

The researchers sent a letter to the SPED High School Principal, requesting approval for the workshop and the participation of student leaders from each grade level, along with the Student Government Officers. Furthermore, the researchers contacted the HI (Hearing Impairment) Teacher of the school to serve as the resource speaker for the workshop, which took place on January 17, 2025. The participants completed a pre-test before starting and a post-test after the workshop, which were collected immediately. Respondents were given the option of anonymity and confidentiality regarding their responses.

Data Analysis

Following the data collection, the researchers utilized Microsoft Excel to analyze the data, calculating the mean and ranking the results from "Very Low Extent" to "Very Great Extent". The tool was shown to be useful in organizing and analyzing data and was utilized in various studies (Simaremare & Siregar, 2024).

FINDINGS AND DISCUSSION

Table 1a. Fostering Inclusivity Among Students with Hearing Impairment

Questions	Rank	Mean	Descriptive Interpretation
1. I am confident in communicating effectively with deaf students.	6.3	1.75	Very Low Extent

Questions	Rank	Mean	Descriptive Interpretation
2. I understand the challenges deaf students face in a mainstream school environment.	1	4.67	Very Great Extent
3. I actively seek opportunities to include deaf students in school activities.	2	2.33	Low Extent
4. I am comfortable using various communication methods (*e.g., sign language)* with deaf students.	4.5	1.83	Low Extent
5. I am aware of the different learning styles and needs of deaf students.	6.3	1.75	Very Low Extent
6. I can identify and address instances of discrimination or bullying against deaf students.	*4.5*	1.83	Low Extent
7. I feel equipped to create a welcoming and inclusive school environment for deaf students.	9.5	1.67	Very Low Extent
8. I am knowledgeable about deaf culture and its importance.	3	2	Low Extent
9. I can adapt my leadership style to meet the specific needs of deaf students.	9.5	1.67	Very Low Extent
10. I am comfortable interacting with deaf students.	6.3	1.75	Very Low Extent
Total		**2.13**	

Table 1b. Reducing Social Isolation Among Students with Hearing Impairment

Questionnaire	Rank	Mean	Descriptive Interpretation
1. I can recognize signs of social isolation among deaf students.	5	2.42	Low Extent
2. I feel comfortable interacting with deaf students on a social level.	3.5	2.58	Low Extent
3. I actively encourage social interaction between deaf and hearing students.	3.5	2.58	Low Extent
4. I create opportunities for deaf students to build friendships and connections with their peers.	7.5	1.92	Low Extent
5. I am aware of the social barriers that deaf students may encounter.	1	4.25	Very Great Extent
6. I facilitate activities that promote a sense of belonging among deaf students.	*7.5*	1.92	Low Extent
7. I know how to support isolated students with hearing impairments.	10	1.67	Very Low Extent
8. I can advocate for the needs of socially isolated deaf students.	9	1.75	Very Low Extent
9. I am confident in my ability to help deaf students develop strong social networks.	6	2.25	Low Extent
10. I understand the importance of creating a positive and supportive social environment for deaf students.	2	4.08	Great Extent
Total		**2.54**	

The pre-test results provide key insights into student leaders' capabilities in promoting inclusivity and alleviating social isolation for hearing-impaired peers. Initially, while student leaders exhibit a robust comprehension of the challenges that hearing-impaired individuals face in mainstream settings (mean 4.67), their confidence and communication skills are markedly lacking, evidenced by mean scores of 1.75 for effective communication and 1.83 for comfort in utilizing various communication methods. Moreover, their understanding of deaf culture (mean 2) and their ability to recognize and respond to discrimination (mean 1.83) highlight crucial areas needing improvement. The overall mean score of 2.13 underscores the necessity for targeted training to empower student leaders in advocating for hearing-impaired students, revealing a divide between their understanding of challenges and their actual skills to tackle them.

In the second part of the pre-test, student leaders demonstrate good awareness of the social barriers encountered by deaf students (mean 4.25), but their ability to encourage social interactions is inadequate. Their scores for detecting signs of social isolation (mean 2.42), feeling at ease when interacting with deaf students (mean 2.58), and proactively promoting social engagement (mean 2.58) reflect this confidence deficit. Their performance in creating friendship opportunities and fostering a sense of belonging is rated even lower (mean 1.92), alongside their confidence in supporting isolated students (mean 1.67) and advocating for their needs (mean 1.75). While they recognize the importance of a positive social atmosphere (mean 4.08), the overall mean score of 2.54 indicates a pressing need for skill enhancement. This highlights the essential nature of training programs designed to improve student leaders' competencies in promoting social inclusivity and effectively aiding their hearing-impaired schoolmates.

Table 2a. Fostering Inclusivity Among Students with Hearing Impairment

Questionnaire	Rank	Mean	Descriptive Interpretation
1. I am confident in communicating effectively with deaf students.	8.5	4.33	Very Great Extent
2. I understand the challenges deaf students face in a mainstream school environment.	1.3	4.83	Very Great Extent
3. I actively seek opportunities to include deaf students in school activities.	10	3.67	Great Extent
4. I am comfortable using various communication methods (e.g., sign language, writing) with deaf students.	4.5	4.67	Very Great Extent
5. I am aware of the different learning styles and needs of deaf students.	1.3	4.83	Very Great Extent
6. I can identify and address instances of discrimination or bullying against deaf students.	*6*	4.5	Very Great Extent
7. I feel equipped to create a welcoming and inclusive school environment for deaf students.	7	4.42	Very Great Extent
8. I am knowledgeable about deaf culture and its importance.	4.5	4.67	Very Great Extent
9. I can adapt my teaching/leadership style to meet the specific needs of deaf students.	8.5	4.33	Very Great Extent
10. I am comfortable interacting with deaf students.	1.3	4.83	Very Great Extent

Total		**4.51**	

Table 2b. Reducing Social Isolation Among Students with Hearing Impairment

Questionnaire	Rank	Mean	Descriptive Interpretation
1. I can recognize signs of social isolation among deaf students.	3.5	4.75	Very Great Extent
2. I feel comfortable interacting with deaf students on a social level.	3.5	4.75	Very Great Extent
3. I actively encourage social interaction between deaf and hearing students.	5	4.67	Very Great Extent
4. I create opportunities for deaf students to build friendships and connections with their peers.	6.5	4.58	Very Great Extent
5. I am aware of the social barriers that deaf students may encounter.	1	5	- Very Great Extent
6. I facilitate activities that promote a sense of belonging among deaf students.	*8*	4.42	Very Great Extent
7. I know how to support isolated students with hearing impairments.	10	4.17	Great Extent
8. I can advocate for the needs of socially isolated deaf students.	9	4.33	Very Great Extent
9. I am confident in my ability to help deaf students develop strong social networks.	6.5	4.58	Very Great Extent
10. I understand the importance of creating a positive and supportive social environment for deaf students.	2	4.92	Very Great Extent
Total		**4.17**	

Table 2 presents the outcomes of the post-workshop assessment. The data points to a notable enhancement in student leaders' abilities to cultivate inclusivity and mitigate social isolation for hearing-impaired students. The overall mean score for fostering inclusivity reached 4.51, reflecting heightened confidence and skill levels. Their confidence in communicating effectively with deaf students increased to 4.33, and their comfort with various communication methods, including sign language, rose to 4.67. Moreover, their understanding of the challenges faced by deaf students and their awareness of varying learning needs both scored 4.83, emphasizing the workshop's success in advancing knowledge and empathy.

Regarding the reduction of social isolation, the overall mean score of 4.17 illustrates the strong confidence of student leaders. Their awareness of social barriers gained the highest score of 5.00, demonstrating a solid grasp of issues contributing to isolation. They also reported high confidence in identifying signs of social isolation (4.75) and felt at ease socially engaging with deaf students (4.75). Their proficiency in encouraging interactions between deaf and hearing students (4.67) and creating friendship opportunities (4.58) further exemplifies their proactive mindset. Although the scores for supporting isolated students (4.17) and advocating for their needs (4.33) were slightly lower, they remain within the "Great Extent" category, indicating a strong foundation for delivering support.

Furthermore, the following 4 open-ended questions were also included in the questionnaire to gain verbal data from the participants regarding the effectiveness of the "Love Language" workshop:

1. How did the workshop improve your communication with deaf students?
2. What specific strategies or techniques did you learn in the workshop that you can now use to actively include deaf students in school activities and social events?
3. How did the workshop enhance your understanding of the unique challenges and experiences faced by deaf students in a hearing-dominant environment?
4. Considering all aspects of the workshop, what do you believe was its most significant contribution to your ability to foster inclusivity and reduce social isolation among deaf students?

In Item No. 1, most of the students answered that the workshop improved their communication with the hearing-impaired students by learning basic sign language skills that they can use to interact with their deaf schoolmates and classmates.

In Item No. 2, the participants said learning sign language is beneficial to them so they can know how to align their activities to the needs of their deaf peers and uphold inclusion in school.

In Item No. 3, all of the respondents shared that the workshop helped them to be even more aware of the daily challenges faced by their deaf schoolmates in school and the significance of learning the deaf culture, which will help them as leaders to create an inclusive environment and build meaningful connections with their schoolmates who have hearing impairment.

In Item No. 4, the student leaders responded that the most significant contribution of the workshop to them was learning basic sign language, such as greetings ("*Good morning", "Good afternoon," and "Hi"*) and common phrases (*"How are you?" and "I love you"*). According to them, learning basic sign language helps break the communication barrier between the hearing and hard-of-hearing students and opens the portal to a more inclusive and diverse SPED High School.

Fostering Inclusivity Among Students with Hearing Impairment

Table 3. Paired Sample T-test Results *(*Pre-test and Post-test)

Respondents	Pre-test Average	Post-test Average
1	2.2	4.6
2	2.1	4.7
3	2.2	4.3
4	2	4.6
5	2	4.1
6	1.9	4.5
7	1.9	4.5
8	2.1	4.9
9	2.1	4.8

$$t = \frac{M_1 - M_2}{SE}$$

RESULT:

P-value – 1.6058E-12

Respondents	Pre-test Average	Post-test Average
10	2	4.1
11	2.1	4.4
12	2.1	4.6

Reducing Social Isolation Among Students with Hearing Impairment

Respondents	Pre-test Average	Post-test Average
1	2.8	4.8
2	2.6	4.7
3	2.7	4.6
4	2.9	4.6
5	2.4	4.5
6	2.6	4.7
7	2.7	4.7
8	2.3	4.5
9	2.5	4.7
10	2.8	4.4
11	2.5	4.6
12	2.4	4.6

$$t = \frac{M_1 - M_2}{SE}$$

RESULT:

P-value – 9.4408E-13

The results above provide extremely strong evidence of a statistically significant improvement from pre-test to post-test. The post-test scores are considerably higher than the pre-test scores. This suggests a positive impact of the intervention. Taking everything into account, the results imply that the workshop successfully equipped student leaders with basic sign language skills and a deeper appreciation of inclusivity and social dynamics, empowering them to better assist and advocate for their hearing-impaired peers.

CONCLUSIONS

This study investigated the effectiveness of a sign language workshop intervention, "Love Language," in enhancing the ability of hearing student leaders to mitigate and break the boundaries of social isolation of deaf students in SPED High School. According to the findings, the workshop positively influenced the student leaders in fostering inclusivity and reducing feelings of isolation and not knowing everything about the deaf students. While the pre-workshop assessments revealed varying levels of initial knowledge and skills, the post-workshop evaluations demonstrated a clear improvement in the participants' proficiency in basic sign language and their

understanding of inclusive communication strategies. This improvement suggests that targeted interventions, such as the "Love Language" workshop, can effectively equip student leaders with the necessary tools to bridge communication gaps and promote a more inclusive environment. The study also highlights the critical role of nonverbal communication, particularly sign language, in fostering empathy and understanding between hearing and deaf students, addressing the existing educational gap in current curricula that often overlook these vital skills.

LIMITATION & FURTHER RESEARCH

A limitation of this study is the limited number of participants, which could limit the extent to which the results can be applied to the wider population, and the limited time allocated for the seminar may have affected the participants' engagement and the retention of the information. Furthermore, there is a potential for bias in the survey given, where participants may have provided responses in line with societal standards rather than honest answers.

RECOMMENDATION

Based on the findings of the study, it is recommended that future studies be conducted to extend sign language interventions into elementary and tertiary levels of educational settings. Further, longitudinal research could be followed up to observe the long-term effects of sign language workshops not only on the student leaders but also on the communication habits of all students and general social integration among deaf students. In addition, the results of this research can be used as a basis for future studies that should be precisely aligned with and contribute to the application of the DepEd (Department of Education) Order No. 44, s. 2021 in the Philippines regarding mainstreaming students with disabilities in regular classrooms and the Republic Act No. 11650, referred to as the *"Instituting a Policy of Inclusion and Services for Learners with Disabilities in Support of Inclusive Education Act"*.

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