

## Quantitative analysis of isolation, communication, and mobility among learners with special educational needs

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### Abstract

**Aim:** This study examined the relationship among isolation, communication, and mobility of learners with special educational needs toward fostering a sense of belonging within inclusive educational settings. Specifically, the study described the profile of the parent-respondents and determined the significant relationships and differences among the identified variables in relation to inclusive educational participation and learner support.

**Methodology:** The study employed a quantitative descriptive-correlational research design involving 73 parent-respondents of learners with special educational needs. Data were gathered using a validated researcher-developed questionnaire. Descriptive statistics such as frequency, percentage, weighted mean, and standard deviation were used to describe the respondents' profile and assessments. Chi-square, Kruskal-Wallis, and Mann-Whitney U tests were utilized to determine the significant relationships and differences among the variables.

**Results:** Findings revealed that parent-respondents generally perceived that teachers frequently demonstrate supportive practices addressing the isolation, communication, and mobility needs of learners with special educational needs. Mobility obtained the highest assessment among the variables. Statistical analysis further revealed a significant relationship among isolation, communication, and mobility, indicating that these dimensions are interconnected factors influencing learners' participation, inclusion, and sense of belonging. Moreover, significant difference was found only in isolation when respondents were grouped according to role in the family, while no significant differences were observed in the other variables.

**Conclusion:** The findings emphasize that reducing isolation and strengthening communication and mobility support are important in fostering a sense of belonging among learners with special educational needs. Inclusive educational practices that promote accessibility, social participation, supportive teaching strategies, and learner-centered environments contribute positively to learners' emotional well-being, participation, inclusion, and overall educational experiences within school settings.

**Keywords:** *inclusive education, isolation, communication, mobility, sense of belonging, special educational needs*

### INTRODUCTION

Educational reforms and laws now ensure that students with special needs are included in mainstream schools. Inclusive education guarantees equal participation, accessibility, and social integration for every learner, regardless of disability or condition (Vistar et al., 2024).

Despite progress, challenges persist in ensuring meaningful participation and acceptance for students with special needs. Learners with disabilities often face communication barriers, mobility limitations, social exclusion, bullying, and isolation (Ručman & Šulc, 2025; Stalmach et al., 2024). These issues hinder emotional development, academic engagement, and social participation. True inclusion requires environments where learners feel accepted, supported, respected, and connected with peers and teachers (Kunwar & Adhikari, 2023).

In the Philippines, inclusive education is supported by the Inclusive Education Policy Framework and DepEd Orders No. 72, s. 2009 and No. 44, s. 2021, which mandates equitable, quality education for learners with disabilities

(Factor & Saenz, 2025). DepEd programs, such as SPED centers and teacher training, aim to strengthen inclusion. However, local implementation faces ongoing challenges, especially in rural areas, due to shortages of trained teachers, assistive devices, accessible facilities, and instructional resources. Overcrowded classes and limited support hinder learners with hearing impairments, autism, physical disabilities, and other needs. These students often cannot fully participate in classroom activities, which can lead to social isolation and reduced academic engagement. These challenges emphasize the need for stronger institutional support, better teacher preparation, accessible environments, and school-community partnerships to make inclusion more effective.

Learners who feel they belong show better academic performance, peer relationships, and emotional stability. Students with special needs are at higher risk of isolation and reduced participation, especially when communication and mobility difficulties limit interaction (Wang et al., 2023). Communication is vital for their social and educational development. Students with intellectual disabilities, autism, or visual impairments often struggle with expression, social cues, and classroom interaction. These challenges call for innovative instructional approaches and inclusive strategies that foster active participation. Social isolation persists. Students with disabilities frequently face peer rejection, exclusion, and bullying, which leads to loneliness and distress (Asakavičiūtė et al., 2024; Farmer et al., 2021). Learner-centered interventions, communication supports, and accessibility practices—like differentiated instruction, assistive technologies, and flexible classroom setups—are essential for promoting participation and social inclusion.

Previous studies on inclusive education, communication barriers, and accommodations often treat communication, mobility, and isolation as separate issues. They do not address these factors as interconnected influences on learners' sense of belonging (Haegele & Maher, 2023; Mendoza et al., 2026). Research typically focuses on teachers and policies. There is little attention to parents' perspectives and the realities of Philippine public schools. This study addresses these gaps by examining isolation, communication, and mobility as linked dimensions and incorporating parents' insights. It provides a holistic framework and localized evidence from Philippine schools. The results offer practical guidance for inclusive teaching, parent-school collaboration, and learner support to strengthen communication, mobility, peer interaction, and social inclusion.

This study identifies that isolation, communication difficulties, and mobility limitations significantly reduce learners' sense of belonging. It finds that addressing these factors is crucial for effective inclusive education. The study concludes that targeted support, accessible environments, and collaborative practices are needed to improve academic achievement, social inclusion, emotional well-being, and participation among learners with special needs.

## Review of Related Literature and Studies

### Communication Barriers and Inclusive Communication Practices in Inclusive Education

Communication barriers remain a major challenge among learners with special educational needs in inclusive classrooms (Marinduque & Marquez, 2025). Learners with hearing impairments, autism spectrum disorders, speech and language difficulties, visual impairments, and other developmental conditions may struggle to express ideas, understand instructions, interpret social cues, and participate in classroom discussions. These challenges may affect academic engagement, peer relationships, confidence, and sense of belonging, particularly when communication support systems are limited (Al-Ahmed, 2025).

Building on this, inclusive education emphasizes classroom communication support and practices that promote meaningful participation among all learners. Teachers play an important role in implementing strategies such as differentiated instruction, visual supports, simplified language, peer-assisted interaction, assistive technologies, and augmentative communication systems (Kuylar et al., 2025). Supportive communication practices and accessible instructional approaches help strengthen learner interaction, classroom participation, and social inclusion (Mohanapriya, 2023).

### Inclusive Education, Social Participation, Communication, and Mobility Among Learners with Special Educational Needs

In this context, inclusive education promotes equal opportunities by encouraging learners with disabilities to actively participate alongside their peers. Studies show that inclusive classrooms enhance social development, communication, peer interaction, and academic engagement among learners with special educational needs (Molina et al., 2021). Social participation, including peer acceptance, friendships, and positive social interaction, strengthens learners' confidence, emotional security, and sense of belonging (Schwab et al., 2021). However, stigma, inadequate support systems, limited teacher preparation, communication difficulties, and mobility limitations continue to hinder effective inclusion (Nisa & Safeek, 2025). Mobility and accessibility also influence learners' participation and

independence, as environmental barriers may limit the involvement of learners with physical disabilities and visual impairments in school activities (Pamuji et al., 2022; Liu et al., 2025).

**Mobility, Accessibility, Isolation, and Sense of Belonging in Inclusive Education**

Mobility and accessibility significantly influence learners with special educational needs' participation and independence in inclusive educational settings. Orientation and mobility skills enable learners with disabilities to move safely and confidently within school and community environments. However, students with physical disabilities and visual impairments may encounter environmental and structural barriers that limit their participation in classroom and extracurricular activities. These limitations may also contribute to social isolation, exclusion, loneliness, and reduced peer interaction among learners with disabilities (Haegele & Maher, 2023). Such experiences negatively affect learners' emotional well-being, self-esteem, academic participation, and sense of belonging within the school environment (Carmona & Montanero, 2025).

**Synthesis and Research gap**

The reviewed literature highlights that communication barriers, limited social participation, mobility difficulties, and social isolation significantly influence the educational experiences of learners with special educational needs in inclusive settings. Existing studies consistently emphasize the importance of inclusive communication practices, peer interaction, accessibility, and supportive classroom environments in strengthening learners' participation, well-being, and sense of belonging. However, inconsistencies remain regarding the extent to which schools effectively implement inclusive practices, particularly in resource-limited educational contexts where teacher preparation, communication support systems, and accessibility accommodations may be inadequate. Furthermore, many previous studies have examined communication, mobility, social participation, and isolation as separate concerns rather than as interconnected dimensions that affect learners' inclusion experiences. Limited research has also explored these issues in the Philippine inclusive education context, from the perspective of parents who closely observe the daily challenges learners with special educational needs face. Addressing these gaps, the present study seeks to provide a more integrated and localized understanding of how communication, mobility, and isolation collectively influence learners' sense of belonging in inclusive educational environments.

**Theoretical Framework**

The study is anchored on Baumeister and Leary's Belongingness Theory (1995), which emphasizes that individuals possess an inherent need to establish meaningful social connections and experience acceptance within social groups. The theory explains that feelings of inclusion, support, and connectedness significantly influence emotional well-being, motivation, and behavioral outcomes.

Within inclusive educational settings, learners with special educational needs require supportive environments that address barriers related to communication, mobility, and isolation. Difficulties in communication and mobility may limit students' participation in classroom interactions and peer relationships, increasing the risk of social isolation. Conversely, positive social experiences and supportive educational practices strengthen learners' sense of belonging and participation. The theory supports the assumption that communication, mobility, and social participation are interconnected dimensions influencing learners' educational experiences. When schools provide inclusive environments that promote accessibility, social interaction, and emotional support, learners with special educational needs are more likely to experience a sense of belonging, acceptance, and positive educational outcomes.

**Figure 1**

Research paradigm

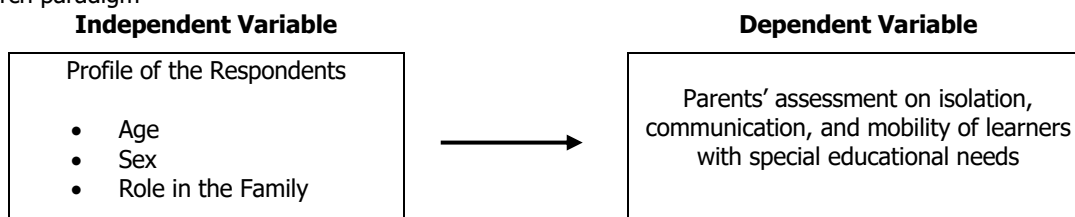


Figure 1 presents the study's research paradigm, illustrating the relationship between the independent and dependent variables. The independent variables consist of the profile of the respondents, specifically age, sex, and role

in the family, while the dependent variable focuses on the parents' assessment of isolation, communication, and mobility of learners with special educational needs.

The profile variables were included in the study because demographic characteristics may influence parents' perspectives, observations, and assessments of learners with special educational needs. Age may affect the level of maturity, parenting experience, and understanding of inclusive educational practices. Sex may influence parental involvement, communication styles, and sensitivity toward the developmental and emotional needs of the learner. Likewise, the role in the family, whether mother, father, guardian, or other caregiver, may shape the extent of interaction and involvement with the learner's educational and social experiences. The dependent variable focuses on the parents' assessment of isolation, communication, and mobility among learners with special educational needs. The paradigm further illustrates that respondents' profile variables may influence how parents assess learners' experiences and conditions with special educational needs.

### Statement of the Problem

Inclusive education seeks to provide equal learning opportunities, meaningful participation, and supportive educational experiences for all learners, including those with special educational needs. Despite the growing implementation of inclusive educational programs, many learners with disabilities continue to encounter challenges related to communication barriers, mobility limitations, social isolation, and reduced participation within school environments. These barriers negatively affect learners' emotional well-being, classroom engagement, peer interaction, and sense of belonging.

Within inclusive educational settings, communication, mobility, and social participation are important dimensions that influence learners' educational experiences and participation. However, existing studies often examine these variables independently rather than as interconnected factors affecting learners' inclusion and belongingness. Furthermore, limited studies have explored these concerns from the perspective of parents, who play a significant role in understanding the daily educational and social experiences of learners with special educational needs.

In response to these concerns, the present study investigates the relationship among isolation, communication, and mobility of learners with special educational needs based on the assessment of parent-respondents. The study further examines whether significant relationships and differences exist among the identified variables and explores how these dimensions contribute to fostering a sense of belonging within inclusive educational environments.

### Research Objectives

#### General Objective

To determine the relationship among isolation, communication, and mobility of learners with special educational needs toward fostering a sense of belonging within inclusive educational settings.

#### Specific Objectives

1. To describe the profile of the parent-respondents in terms of:
  - 1.1 age,
  - 1.2 sex, and
  - 1.3 role in the family.
2. To assess the isolation, communication, and mobility experiences of learners with special educational needs based on the assessment of parent-respondents.
3. To determine whether there is a significant relationship among isolation, communication, and mobility of learners with special educational needs.
4. To determine whether there is a significant difference in the assessment of parent-respondents when grouped according to profile variables.

#### Research Questions

1. What is the profile of the parent-respondents in terms of:
  - 1.1 age,
  - 1.2 sex, and
  - 1.3 role in the family?

2. How do the parent-respondents assess the isolation, communication, and mobility experiences of learners with special educational needs?
3. Is there a significant relationship among isolation, communication, and mobility of learners with special educational needs?
4. Is there a significant difference in the assessment of parent-respondents when grouped according to profile variables?

### Hypotheses

H<sub>01</sub>: There is no significant relationship among isolation, communication, and mobility of learners with special educational needs.

H<sub>02</sub>: There is no significant difference in the assessment of parent-respondents on isolation, communication, and mobility when grouped according to profile variables.

### METHODOLOGY

#### Research Design

The study utilized a quantitative, descriptive-correlational research design to examine the relationships among isolation, communication, and mobility of learners with special educational needs to foster a sense of belonging within inclusive educational settings. The descriptive component was used to systematically present the profile of the parent respondents and to describe their assessments of the identified dimensions affecting learners with special educational needs. The correlational component was used to determine whether significant relationships existed among the variables, using appropriate statistical analyses. The chosen research design allowed the researcher to describe existing educational conditions while examining relationships among variables relevant to inclusive education and learner participation.

#### Population and Sampling

The study involved 73 parent-respondents of learners with special educational needs enrolled in public schools within the Schools Division of Cavite under the Philippine Department of Education. The respondents were selected because of their direct involvement in monitoring and supporting the educational, social, and developmental experiences of learners with special educational needs. A purposive sampling technique was used to identify participants with relevant experience and sufficient knowledge of learners' educational participation, communication, mobility, and social experiences within inclusive school environments. Parents provide valuable insights into learners' daily experiences, behaviors, and participation both in and out of the classroom. Their observations also contribute to assessing learner needs, evaluating support mechanisms, and identifying challenges affecting the implementation of inclusive education.

#### Research Instrument

The present study utilized a researcher-developed questionnaire as the primary instrument for data collection. The instrument consisted of two major parts. The first part collected respondents' demographic information, including age, sex, and family role. The second part contained indicators related to isolation, communication, and mobility, using a four-point Likert scale to assess respondents' agreement and perceptions. Specifically, the questionnaire included 9 items for isolation, 6 items for communication, and 5 items for mobility. The four-point Likert scale and its corresponding interpretation are presented in Table 2. The research instrument was developed based on the relevant literature and existing studies on inclusive education, communication barriers, social participation, and learner mobility.

To establish content validity, the questionnaire underwent validation by experts in special education, educational management, and research methodology. A pilot test was conducted with respondents outside the study participants to assess the instrument's reliability. The gathered responses were subjected to reliability testing using Cronbach's alpha, which yielded an acceptable reliability coefficient of 0.86, indicating the instrument's internal consistency.

#### Data Collection

Prior to the conduct of the study, formal permission was secured from the school authorities and concerned offices. The study was conducted in selected public schools within the Schools Division of Cavite involving inclusive educational settings for learners with special educational needs. Upon approval of the request, coordination with the

respondents was undertaken regarding the administration of the questionnaires, and the objectives as well as the significance of the study were properly explained.

The questionnaires were personally distributed to the selected parent-respondents. Data collection was conducted through coordinated schedules during school-related activities and parent meetings to ensure respondents' availability and convenience. Clear instructions were provided to ensure proper understanding of the items and to minimize inconsistencies in responses. The respondents were given adequate time to complete the questionnaires honestly and objectively based on their observations and experiences regarding learners with special educational needs.

The completed questionnaires were retrieved immediately after completion to ensure a high retrieval rate and reduce the risk of missing responses. The researcher carefully checked all questionnaires for completeness before proceeding with data organization and statistical analysis.

### Treatment of Data

Frequency counts and percentages were used to describe the profile of the parent respondents by age, sex, and family role. Weighted means and standard deviations were used to assess respondents' perceptions of the isolation, communication, and mobility of learners with special educational needs. To determine the significant relationship among isolation, communication, and mobility, the Chi-square test and Kendall's Tau were employed. The Kruskal-Wallis H test and Mann-Whitney U Test were used to determine whether significant differences existed in the assessments of the parent respondents across profile variables. These nonparametric tests were considered appropriate because the data were derived from ordinal Likert-scale responses and did not require the assumption of normal distribution, making them suitable for analyzing the characteristics of the collected data.

### Ethics in Research

The study strictly observed ethical considerations throughout the conduct of the study. Informed consent was secured from all respondents before their participation. The respondents were informed regarding the purpose of the study, the voluntary nature of participation, and their right to withdraw from the study at any time without penalty.

Confidentiality and privacy of the respondents were maintained throughout the research process. The questionnaires did not require the disclosure of personal identifiers, and all gathered data were used solely for academic and research purposes. The responses of the participants were treated with utmost confidentiality and were not disclosed to unauthorized individuals.

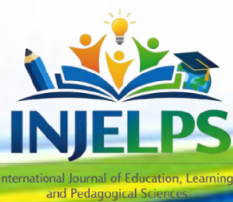
The research also ensured honesty, objectivity, and integrity in data collection, analysis, interpretation, and reporting of the findings. Ethical guidelines in conducting educational research were strictly followed to maintain the credibility and trustworthiness of the study.

### Results and Discussion

**Table 1**

*Frequency distribution of parents' profile*

Parents' Profile	f	%
<b>Age</b>		
30-34	24	33
35-39	36	49
40-44	9	12
45-49	2	3
50-54	1	1
55>	1	1
Total	73	100
<b>Sex</b>		
Male	1	1
Female	72	99
Total	73	100
<b>Role in the Family</b>		
Parent	55	75
Grandparent	12	16
Guardian	6	8



Total	73	100
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Table 1 presents the profile distribution of the parent-respondents in terms of age, sex, and role in the family. Findings reveal that most of the respondents belong to the age bracket of 35–39 years old, comprising 49% of the total respondents, followed by those aged 30–34 years old with 33%. Only a small percentage of respondents belong to older age groups. In terms of sex, the findings show that the respondents are predominantly female, comprising 99% of the total population, while only 1% are male. Regarding role in the family, most respondents are parents, representing 75% of the total respondents, followed by grandparents at 16% and guardians at 8%.

**Table 2**

*Assessment of the parent-respondents on isolation, communication, and mobility of learners with special educational needs*

VARIABLE	MEAN	SD	INTERPRETATION
Isolation	3.20	0.45	Often True of the Teacher of My Kid/s
Communication	3.22	0.43	Often True of the Teacher of My Kid/s
Mobility	3.35	0.54	Always True of the Teacher of My Kid/s
<b>OVERALL MEAN</b>	<b>3.24</b>	<b>0.46</b>	<b>Often True of the Teacher of My Kid/s</b>

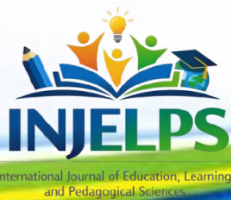
**Legend:** 4.00-3.25 Always true of the teacher of my kid/s, 3.24-2.50, Often true of the teacher of my kid/s, 2.49-1.75 Sometimes true of the teacher of my kid/s, 1.74-1.00, Never true of the teacher of my kid/s

Table 2 presents the parent respondents' assessments of the isolation, communication, and mobility of learners with special educational needs, based on the practices and support provided by teachers. The findings reveal an overall mean of 3.24, interpreted as "Often True of the Teacher of My Kid/s," indicating that teachers frequently demonstrate supportive practices that address the social, communicative, and mobility-related needs of learners with special educational needs within inclusive educational settings.

Among the three variables, mobility obtained the highest mean of 3.35 with an interpretation of "Always True of the Teacher of My Kid/s." This finding suggests that teachers consistently provide support that promotes safe movement, accessibility, and participation of learners with special educational needs within the school environment. Educational literature emphasizes that mobility support and accessible educational environments are essential components of inclusive education because they increase learners' independence, confidence, and participation (Navas-Bonilla et al., 2025). The finding may have occurred because schools and teachers increasingly recognize the importance of accessibility and physical participation in achieving inclusive education goals. From the perspectives of inclusive education and learner-centered theories, accessible learning environments promote equal participation and reduce barriers to engagement. The result also implies that schools may further strengthen inclusive educational innovation by improving accessibility-enhancing practices, adaptive classroom arrangements, and mobility-support interventions that encourage active learner participation.

Communication obtained a mean of 3.22, interpreted as "Often True of the Teacher of My Kid/s." This indicates that teachers frequently demonstrate practices that support the communication needs of learners with special educational needs. The finding suggests that teachers exert efforts to facilitate interaction, encourage participation, and provide opportunities for learners to express themselves within classroom settings. Studies show that supportive teacher communication strategies strengthen learners' confidence, peer relationships, and classroom engagement (Karasova & Kleckova, 2023). Social interaction and constructivist learning theories emphasize that meaningful communication enhances students' participation, collaboration, and engagement in learning. The finding further underscores the need for innovative instructional practices, such as differentiated communication strategies, assistive technologies, and inclusive classroom interaction techniques, to strengthen learner participation and communication development.

Meanwhile, isolation obtained a mean of 3.20, also interpreted as "Often True of the Teacher of My Kid/s." This finding indicates that teachers frequently demonstrate behaviors and practices that help minimize social isolation among learners with special educational needs. The result implies that teachers are making efforts to encourage peer



interaction, participation, and inclusion within classroom activities. Educational research highlights that supportive classroom environments and positive peer interactions contribute significantly to learners’ sense of belonging, emotional well-being, and academic engagement (Ampofo et al., 2025). The finding may have occurred because teachers increasingly implement inclusive practices that promote peer acceptance and collaborative learning experiences. The finding highlights the importance of learner-centered and socially inclusive interventions that foster peer interaction, emotional support, and inclusive classroom participation as part of innovative inclusive education practices.

**Table 3**

*Significant relationship among isolation, communication, and mobility of learners with special educational needs*

ASSESSMENT	N	SUM OF RANKS	AVG. RANK	CHI-SQUARE	Kendall’s coefficient of concordance (W)	P-VALUE	REMARKS
Isolation	73	217.00	2.97	109.523	0.750	.0000	Significant
Communication	73	99.50	1.36				
Mobility	73	121.50	1.66				

Table 3 shows a significant relationship among isolation, communication, and mobility of learners with special educational needs, with a Chi-square value of 109.523, Kendall coefficient of 0.750, and p-value of .0000.

The high Kendall coefficient further suggests a strong degree of association among the three variables, implying that isolation, communication, and mobility are interconnected dimensions affecting the experiences and participation of learners with special educational needs. The findings indicate that challenges or improvements in one area may directly influence the other dimensions. For instance, learners who experience communication difficulties may become more socially isolated, while mobility limitations may reduce opportunities for interaction and participation in school activities. Research consistently shows that learners with disabilities are more vulnerable to exclusion, loneliness, and reduced peer acceptance, which may negatively affect emotional well-being, academic engagement, and self-esteem (Munzhelele et al., 2025). Studies indicate that effective communication strategies strengthen learners’ confidence, classroom participation, and social interaction (Putri et al., 2025). The findings suggest that inclusive education requires a holistic approach where communication support, accessibility accommodations, and social participation strategies are implemented simultaneously rather than separately. This also highlights the importance of innovative and collaborative instructional practices that address both the academic and socio-emotional needs of learners with special educational needs.

The findings support the assumptions of the Belongingness Theory, which emphasizes that meaningful participation, social connection, and supportive relationships are essential in developing a sense of belonging. Learners with special educational needs who experience effective communication, accessible mobility, and reduced social isolation are more likely to feel accepted, included, and emotionally secure within educational environments (Vistar et al., 2024). From an educational perspective, the findings emphasize the need for schools and teachers to implement inclusive practices that strengthen peer interaction, communication support, and accessibility accommodations. Teachers should create classroom environments that encourage collaborative learning, peer acceptance, and active participation among all learners. School administrators and policymakers should likewise ensure that inclusive educational programs address not only academic instruction but also the social and emotional needs of learners with special educational needs. The findings further contribute to inclusive educational innovation by emphasizing learner-centered strategies, communication-support mechanisms, and accessibility-enhancing practices that promote meaningful participation and stronger social inclusion among learners with special educational needs.

**Table 4**

*Significant difference in the assessment of the parent-respondents on isolation, communication, and mobility of learners with special educational needs*

ASSESSMENT	N	DF	TEST	TEST STATISTIC	P-VALUE	REMARKS
<b>Isolation</b>						
Age	73	5	Kruskal Wallis	6.16	0.291	Accept Ho
Sex	73	---	Mann - Whitney	612.50	0.849	Accept Ho
Role in the Family	73	2	Kruskal Wallis	8.513	0.014	Reject Ho
<b>Communication</b>						
Age	73	5	Kruskal Wallis	8.39	0.136	Accept Ho
Sex	73	---	Mann - Whitney	587.00	0.307	Accept Ho
Role in the Family	73	2	Kruskal Wallis	0.205	0.902	Accept Ho
<b>Mobility</b>						
Age	73	5	Kruskal Wallis	4.21	0.519	Accept Ho
Sex	73	---	Mann - Whitney	603.50	0.754	Accept Ho
Role in the Family	73	2	Kruskal Wallis	3.784	0.151	Accept Ho

Table 4 shows no significant differences in respondents' assessments of isolation, communication, and mobility across profile variables.

For isolation, no significant differences were found by age ( $p = 0.291$ ) or sex ( $p = 0.849$ ). This suggests that respondents, regardless of demographic background, commonly recognize social isolation among learners with special educational needs. The consistency of responses indicates that social participation and inclusion are widely perceived as important concerns in inclusive education. However, a significant difference was found when grouped by family role ( $p = 0.014$ ). This implies that parents, grandparents, and guardians differ in their observations regarding isolation, possibly due to variations in caregiving responsibilities and involvement with the learners. The finding highlights the importance of strengthening family-school partnerships, increasing caregiver engagement, and providing differentiated educational support that considers the unique roles and perspectives of various family members in supporting learners with special educational needs. Studies on inclusive education emphasize that family involvement influences understanding of learners' emotional and social experiences within school environments (Sharma et al., 2022). The finding may have occurred because family members interact with learners across different contexts and levels of involvement, thereby affecting their observations of social participation and isolation. The result highlights the importance of strengthening family-school collaboration and learner-centered support systems that address the social and emotional needs of learners with special educational needs.

Regarding communication, no significant differences were found by age ( $p = 0.136$ ), sex ( $p = 0.307$ ), or family role ( $p = 0.902$ ). Similarly, mobility showed no significant differences by age ( $p = 0.519$ ), sex ( $p = 0.754$ ), or family role ( $p = 0.151$ ). These findings indicate that communication and mobility concerns are consistently recognized among caregivers regardless of profile characteristics. This aligns with educational literature, which states that communication support and accessibility are fundamental needs for learners with special educational needs across different family contexts (Sibuyi et al., 2025). The findings further suggest that communication and mobility are universally recognized dimensions of inclusive education that require consistent support across different educational and family settings.

The results emphasize the need for innovative, inclusive practices, communication-support mechanisms, and accessibility-enhancing interventions that promote equal participation and meaningful engagement among learners with special educational needs. They further imply the importance of curriculum implementation that integrates

inclusive learning competencies, adaptive materials, flexible classroom design, and differentiated activities to support diverse learner needs. Strengthening teacher preparation, inclusive pedagogy training, and professional development programs focused on communication and accessibility will better equip teachers to implement inclusive practices.

### Conclusion

The study concluded that isolation, communication, and mobility are interconnected dimensions that significantly influence the participation, inclusion, and sense of belonging of learners with special educational needs within inclusive educational settings. Parent-respondents generally perceived that teachers frequently demonstrate supportive and inclusive practices that address learners' communication, social participation, and accessibility needs, with mobility receiving the highest assessment among the identified variables.

The findings further revealed that effective communication support, reduced social isolation, and accessible mobility opportunities contribute positively to learners' emotional well-being, peer interaction, participation, and educational engagement. The significant relationship among the variables confirms that inclusive education requires a holistic and learner-centered approach where communication support, accessibility accommodations, and social inclusion strategies are implemented collaboratively. Moreover, differences in the assessment of isolation according to family role highlight the importance of strengthening family-school partnerships in supporting learners with special educational needs.

The study contributes to inclusive education research by providing localized evidence from the Philippine context and emphasizing the importance of inclusive pedagogy, accessibility support, collaborative practices, and communication-responsive teaching strategies in fostering belongingness among learners with special educational needs.

### Recommendations

Schools may strengthen inclusive education programs by implementing structured peer interaction, collaborative learning, and social participation activities that help reduce isolation among learners with special educational needs.

Teachers may utilize learner-centered instructional strategies, peer-assisted activities, differentiated instruction, and inclusive classroom practices that encourage communication, participation, accessibility, and relationship-building among learners.

School administrators may provide continuous professional development programs focusing on inclusive communication strategies, classroom accessibility, differentiated instruction, and learner support mechanisms to help teachers effectively address the diverse needs of learners with special educational needs.

Parents, guardians, and other caregivers may actively participate in school-based inclusion programs and maintain regular communication with teachers to strengthen collaborative educational support for learners with special educational needs.

Policymakers and educational leaders may utilize the findings in designing inclusive education policies, intervention programs, and accessibility initiatives that prioritize communication development, social participation, emotional inclusion, and learner belongingness within educational environments.

Teacher education institutions may strengthen pre-service and in-service teacher preparation programs focusing on inclusive pedagogy, communication support strategies, accessibility accommodations, and learner-centered educational practices for diverse learners.

Future researchers may conduct similar studies involving larger and more diverse populations and explore additional variables such as academic performance, emotional well-being, peer relationships, instructional strategies, and inclusive learning outcomes to further understand the factors influencing belongingness among learners with special educational needs.

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