

Barriers To Knowledge Retention and Academic Progress in Learners with Intellectual Disabilities: An Analysis by SPED Stakeholders in Diffun Central School – Integrated Special Education (SPED) Center

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Abstract: Inclusive education seeks to ensure fair learning opportunities for students with intellectual disabilities by tackling the academic and environmental elements that impact their educational advancement. Recognizing the obstacles that impede knowledge retention and academic success is crucial for creating effective support programs and enhancing cooperation among schools, families, and communities. This research explored the barriers to knowledge retention and academic progress among students with intellectual disabilities as viewed by SPED stakeholders at the Diffun Central School–Integrated Special Education (SPED) Center. A descriptive quantitative research approach was utilized, involving 23 parents, guardians, and community stakeholders chosen through total enumeration sampling. Data collection was conducted using a questionnaire developed by the researcher, and the analysis involved frequency, percentage, mean, and standard deviation. The results indicated that students faced significant barriers, especially in memory retention, literacy skills, and receptive language. Support from the home environment was sporadic, showing limited reinforcement of learning activities outside of school. Stakeholders also pointed out insufficient specialized SPED knowledge and limited financial resources as major challenges impacting learner support. Additionally, communication and collaboration between stakeholders and SPED teachers were seen as only moderately effective, highlighting the need for stronger partnerships. The findings underscore the importance of enhancing stakeholder training, bolstering school-home collaboration, and providing adequate instructional resources and intervention programs to improve learning outcomes for students with intellectual disabilities. The study further suggests expanding support services and implementing collaborative strategies that advance inclusive education and support the academic growth of students with intellectual disabilities.

Keywords: *intellectual disabilities, inclusive education, knowledge retention, SPED stakeholders, academic progress*

INTRODUCTION

Inclusive education is really important worldwide because it helps make sure that students with disabilities get the same learning opportunities as everyone else. It also helps them fit in socially and cuts down on educational gaps (Aisy & Aprilia, 2025). Students with intellectual disabilities often struggle with things like memory, language, literacy, and doing well in school, so they need special educational support that's just right for them (Hornby & Kauffman, 2024). Helping these students remember what they learn and do better academically is a big focus of international education efforts, like inclusive education and the push for quality education for everyone (Ajani & Ntombela, 2025). To reach these goals, schools, families, and communities need to work together effectively. This teamwork creates a learning environment that focuses on the students' needs and uses universal design for learning principles (Fisher, 2021; Shutaleva et al., 2023).

In the Philippines, the government is really showing its dedication to inclusion through the Department of Education's Special Education (SPED) programs. These programs are all about providing the right kind of education for learners with disabilities (Comia, 2021). But SPED centers often run into problems like not having enough resources, educators and stakeholders not getting enough training, and families not always being able to support their kids at home (Ladines, 2023; Luzano, 2024). Parents and

caregivers are super important in helping reinforce what kids learn in the classroom, but their ability to do so can be affected by things like socioeconomic and educational barriers (Agaton & Cueto, 2021). So, building stronger partnerships between schools and families is a big deal if we want to improve inclusive education in the Philippines (Comia, 2021). Inclusive education is all about making sure learners with disabilities have equal opportunities, helping them integrate socially, and reducing disparities in education systems (Yazicioğlu & Sümer Dodur, 2023). Learners with intellectual disabilities often face challenges with memory, language, literacy, and academic achievement, so they need support that's tailored to them (Hornby & Kauffman, 2024). Improving how well they retain knowledge and progress academically is a priority, especially with initiatives like inclusive education and the Sustainable Development Goal for quality education for all (Burningham et al., 2024). Collaboration among schools, families, and communities is key to enhancing outcomes and providing support in a well-rounded environment (Fisher, 2021). In the Philippines, the Department of Education's Special Education (SPED) programs show a real commitment to inclusive education for kids with disabilities (Ladines, 2023). Despite the policies in place, SPED centers often struggle with limited resources, inadequate training for stakeholders, and inconsistent support from home, which can get in the way of achieving inclusive education goals (Luzano, 2024). Parents and caregivers play a crucial role in reinforcing learning, but socioeconomic and educational factors can often limit the support they can provide at home (Agaton & Cueto, 2021). Strengthening the partnerships between schools and families is still critical for effective SPED implementation in the Philippines (Masondo & Mabaso, 2025).

Most prior research in special education has primarily focused on instructional strategies, learner characteristics, or teacher practices. However, few studies have explored the combined effects of knowledge retention, home environment support, stakeholder constraints, and school-home communication on the academic progress of learners with intellectual disabilities. Additionally, there is a scarcity of local data from rural SPED centers, especially in Diffun, Quirino Province, concerning the perspectives of parents, guardians, and community stakeholders. This study addresses these gaps by investigating barriers to knowledge retention and academic progress from stakeholder viewpoints, aiming to inform interventions that enhance support and learning outcomes.

RESEARCH QUESTIONS

This study aimed to examine the barriers to knowledge retention and academic progress among learners with intellectual disabilities as perceived by SPED stakeholders at the Diffun Central School-Integrated Special Education (SPED) Center. Specifically, it sought to answer the following questions:

1. What is the demographic profile of the SPED stakeholders in terms of:
 - relationship to the learner.
 - highest educational attainment.
 - monthly income; and
 - length of time providing support?
2. To what extent do SPED stakeholders perceive the barriers to knowledge retention and academic progress of learners with intellectual disabilities in terms of:
 - knowledge retention (memory and recall).
 - literacy skills; and
 - receptive language?
3. What is the level of home environment support provided to learners with intellectual disabilities?
4. What constraints are encountered by SPED stakeholders in supporting learners with intellectual disabilities?
5. How effective is the communication and collaboration between SPED stakeholders and SPED

teachers in addressing the academic and developmental needs of learners with intellectual disabilities?

METHODS

Research Design

The study employed a descriptive quantitative research design to determine the barriers affecting knowledge retention and academic progress among learners with intellectual disabilities as perceived by SPED stakeholders. Specifically, the study described the stakeholders' demographic profile, assessed the extent of barriers related to knowledge retention, literacy skills, receptive language, home environment support, and constraints encountered by stakeholders, and evaluated the effectiveness of communication and collaboration between stakeholders and SPED teachers. The descriptive design was considered appropriate because it systematically gathered and summarized quantitative data without manipulating any variables.

Local of the Study

The study was conducted at the Diffun Central School – Integrated Special Education (SPED) Center in Diffun, Quirino Province, Philippines. The school provides specialized educational services to learners with intellectual disabilities and collaborates closely with parents, guardians, and community stakeholders to support learners' academic and developmental needs. The locale was selected because it serves as a recognized SPED center where stakeholder involvement plays a significant role in learners' educational progress.

Respondents of the Study

The respondents consisted of 23 SPED stakeholders, including parents, guardians, and community stakeholders directly involved in supporting learners with intellectual disabilities enrolled at the Diffun Central School – Integrated SPED Center. These respondents were selected because of their firsthand knowledge and experience in assisting learners both at home and in the community, enabling them to provide reliable information regarding the barriers affecting learners' knowledge retention and academic progress.

Sampling Technique

The study utilized total enumeration sampling, wherein all identified SPED stakeholders who met the inclusion criteria were invited to participate. Since the population of stakeholders was relatively small, all eligible respondents ensured comprehensive representation and minimized sampling bias. This approach also increased the reliability of the information gathered from individuals directly involved in the learners' educational development.

Research Instrument

Data was collected using a researcher-developed structured questionnaire based on relevant literature and the objectives of the study. The instrument consisted of five sections: (1) demographic profile of the stakeholders; (2) perceived barriers to knowledge retention and academic progress, including memory and recall, literacy skills, and receptive language; (3) home environment support; (4) encountered by stakeholders; and (5) effectiveness of communication and collaboration with SPED teachers. Responses were measured using a four-point Likert scale with corresponding verbal interpretations. Prior to data collection, the instrument underwent expert validation to ensure content validity and was pilot tested to establish its reliability.

Data Gathering Procedure

Approval to conduct the study was first obtained from the appropriate school authorities and the head

of the Diffun Central School – Integrated SPED Center. After securing permission, the researcher explained the purpose of the study to the respondents and obtained their informed consent. The questionnaires were personally distributed to the participants and retrieved after completion. Confidentiality and anonymity of the respondents were maintained throughout the conduct of the study, and all responses were used solely for research purposes.

Statistical Treatment of Data

The collected data were encoded, organized, and analyzed using appropriate descriptive statistical tools. Frequency and percentage were used to describe the demographic profile of the respondents. Mean and standard deviation were computed to determine the perceived barriers to knowledge retention and academic progress, the level of home environment support, the constraints encountered by stakeholders, and the effectiveness of communication and collaboration between stakeholders and SPED teachers. The computed means were interpreted using the corresponding verbal interpretation scales established for each section of the questionnaire.

RESULT AND DISCUSSION

Table 1. Demographic Profile of the SPED Stakeholders

Variable	Category	Frequency (f)	Percentage (%)
Relationship to Learner	Parent	15	65.22
	Guardian	5	21.74
	Community stakeholder	3	13.04
	Total	23	100.00
Highest Educational Attainment	Elementary level/graduate	4	17.39
	High school level/graduate	12	52.17
	College level/graduate	4	17.39
	Vocational/technical	2	8.70
	Post-graduate	1	4.35
	Total	23	100.00
	Below ₱10,000	13	56.52
	₱10,001–₱20,000	6	26.09
Monthly Income	₱20,001–₱30,000	3	13.04
	Above ₱30,000	1	4.35
	Total	23	100.00
Length of Time Providing Support	Less than 1 year	2	8.70
	1–3 years	4	17.39
	4–6 years	6	26.09
	7 years and above	11	47.83
	Total	23	100.00

The demographic profile indicates that most respondents were parents (65.22%), followed by guardians (21.74%) and community stakeholders (13.04%). More than half (52.17%) had completed high school, while 69.56% had attained a high school education or lower. In terms of monthly income, the majority (56.52%) earned below ₱10,000 per month, reflecting the financial constraints experienced by many

families of learners with intellectual disabilities. regarding caregiving experience, nearly half of the respondents (47.83%) had been providing support for seven years or more, suggesting that most participants possessed substantial firsthand knowledge of the learners' educational needs and developmental progress. These findings indicate that the respondents were well positioned to provide reliable information regarding the barriers affecting knowledge retention and academic progress among learners with intellectual disabilities.

Table 2 Perceived Barriers to Knowledge Retention and Academic Progress of Learners with Intellectual Disabilities

Domain	Indicators	Mean	Sd*	Verbal Interpretation
Knowledge Retention (Memory and Recall)	The learner forgets newly learned information within a few hours.	3.26	0.74	Very Great Extent
	The learner struggles to recall lessons from the previous week.	3.43	0.69	Very Great Extent
	Subscale mean	3.35	0.72	Very Great Extent
Literacy Skills (Reading and Writing)	The learner has difficulty recognizing basic letters or sounds.	2.78	0.83	Great Extent
	The learner finds it challenging to hold writing tools or form letters.	2.48	0.87	Moderate Extent
	Subscale mean	2.63	0.85	Great Extent
Receptive Language (Understanding Instructions)	The learner struggles to follow multi-step instructions.	3.22	0.76	Great Extent
	The learner requires frequent repetition to understand simple tasks.	3.17	0.78	Great Extent
	Subscale mean	3.20	0.77	Great Extent
Overall Mean		3.06	0.78	Great Extent

Table 2 shows that the perceived barriers to knowledge retention and academic progress among learners with intellectual disabilities encompass challenges across memory, literacy, and receptive language domains. In the domain of knowledge retention, learners exhibited a very great extent of difficulty, with mean scores of 3.26 and 3.43 indicating they forget newly learned information within hours and struggle recalling lessons from the previous week, respectively, culminating in a subscale mean of 3.35 (Jacob & Pillay, 2022). Literacy skills also pose significant barriers; learners demonstrated a great extent of difficulty recognizing basic letters or sounds (mean 2.78) and a moderate extent of difficulty holding writing tools or forming letters (mean 2.48), with an overall literacy skills mean of 2.63. This underscores the importance of targeted instructional strategies to foster reading skills, as illustrated by interventions that combine phonics and comprehension strategies to improve literacy in this population (Samuelsson et al., 2024). Similarly, receptive language posed barriers whereby learners struggled to follow multi-step instructions (mean 3.22) and required frequent repetition for simple tasks (mean 3.17), with a mean of 3.20 reflecting a great extent of difficulty. These deficits in receptive language and memory directly affect academic progress by impeding comprehension and task execution. Overall, the combined mean score of 3.06 indicates that learners with intellectual disabilities face substantial barriers to knowledge retention and academic achievement, necessitating adaptive educational interventions such as easy-to-read texts and digital game-based training to enhance motivation, comprehension, and literacy skills

(Chang et al., 2025; Ladas et al., 2022).

Table 3. Home Environment Support for Learners with Intellectual Disabilities

Indicators	Mean	Sd*	Verbal Interpretation
There is a fixed schedule for studying at home.	1.91	0.82	Sometimes
Simplified Learning Materials (e.g., visual aids, flashcards) are available at home.	2.30	0.79	Sometimes
School lessons are regularly reviewed and practiced at home.	2.17	0.81	Sometimes
Overall mean	2.13	0.81	Sometimes

The home environment support for learners with intellectual disabilities is generally limited, as indicated by mean scores in the moderate "sometimes" range across key indicators. Specifically, the presence of a fixed study schedule at home scored a mean of 1.91 (SD=0.82), suggesting inconsistent routine establishment. Similarly, simplified learning materials such as visual aids and flashcards are only sometimes available at home, with a mean of 2.30 (SD=0.79), reflecting moderate support for tailored learning resources. Furthermore, school lessons are reviewed and practiced at home sometimes (mean=2.17, SD=0.81), indicating that regular reinforcement of academic content in the home setting is not consistently practiced. The overall mean of 2.13 (SD=0.81) reveals that home support for academic activities is only sporadic or occasional. These findings align with research highlighting that parental involvement is crucial for academic achievement among learners with intellectual disabilities but are often constrained by gaps in parental understanding and resources (Mabaso, 2024). Lack of a structured learning environment and insufficient educational materials at home may hinder learners' progress, given their need for routine and tailored support to reinforce school-based instruction. Empowering parents through psychoeducation and providing accessible learning tools can strengthen home support, benefiting learners' retention and application of knowledge (Stárek, 2025). Moreover, the design of home environments that promote safety, autonomy, and skill acquisition is imperative for sustained participation and well-being in learners with intellectual disabilities (Yong et al., 2023). Together, these points to the need for coordinated interventions addressing home-based learning support as a complement to school efforts to enhance academic outcomes for this population.

Table 4. Constraints Encountered by SPED Stakeholders

Indicators	Mean	Sd*	Verbal Interpretation
Lack of Specialized SPED Knowledge and Skills.	3.65	0.60	Strongly Agree (Severe Barrier)
Limited Financial Resources for Therapy, Medication, or Learning Materials.	3.42	0.67	Agree (Moderate Barrier)
Personal Workload and Household Responsibilities Limit Tutoring Time.	2.87	0.76	Agree (Moderate Barrier)
Overall Mean	3.31	0.68	Agree (Moderate Barrier)

The constraints faced by special education (SPED) stakeholders in supporting learners with intellectual disabilities reveal challenges affecting educational delivery and learner progress. One key barrier is the lack of specialized SPED knowledge and skills, with a mean score of 3.65 indicating strong agreement that this deficit is severe. This supports findings on the need for professional development and specialized training for educators to address learners' needs (Khoeriah et al., 2021). Without adequate

skills and knowledge, educators struggle to implement evidence-based instructional strategies, undermining student engagement and learning outcomes (Klefbeck, 2024). Limited financial resources, with a mean of 3.42, are a moderate barrier affecting access to therapies, medications, and learning materials for education and care. Financial constraints reported by parents and educators result in insufficient support services and restricted assistive technologies (Buthelezi & Mawila, 2024; Ironbar et al., 2025). This is compounded by workload and responsibilities borne by SPED stakeholders, with a mean of 2.87, indicating reduced time for tutoring and educational support. Such pressures can exacerbate stress and limit parental and educator involvement (Buthelezi & Mawila, 2024; Stárek, 2025). The moderate barrier score of 3.31 underscores these multifaceted constraints. These challenges indicate a need for systemic interventions: professional development in specialized SPED competencies, increased funding for resources and therapies, and support mechanisms to ease workload burdens. Addressing these constraints can strengthen SPED systems (Corby et al., 2022; Nomtshongwana & Manyakaza, 2025).

Table 5. Effectiveness of Communication and Collaboration Between Stakeholders and SPED Teachers

Indicator	Mean	Sd*	Verbal Interpretation
Effectiveness of Communication and Collaboration between Stakeholders and SPED Teachers in Addressing the Learners' Academic and Developmental Needs.	2.35	0.79	Somewhat Effective

The effectiveness of communication and collaboration between stakeholders and special education (SPED) teachers in addressing the academic and developmental needs of learners with intellectual disabilities is rated as somewhat effective, with a mean score of 2.35 and a standard deviation of 0.79. This indicates moderate satisfaction but also points to room for improvement in collaborative practices. Research highlights the critical role that collaboration plays in meeting the diverse needs of students in special education. For example, collaboration between special education teachers and other subject teachers often occurs informally and through team teaching, which benefits both educators and pupils (Rihter et al., 2023). However, some professionals have yet to engage fully in collaborative efforts, underscoring the need for structured collaboration protocols and professional development to enhance these interactions (Alsudairy, 2024). Moreover, the integration of technology offers promising avenues to support communication among educators, parents, and other stakeholders. Utilizing platforms such as social media or information and communication technology (ICT) can facilitate resource sharing and improve coordination, though ethical considerations and training are necessary to optimize these tools for inclusive education (Alsowait et al., 2023; Maebara et al., 2022). Training programs targeting co-teaching and collaboration skills have demonstrated effectiveness in improving educators' ability to work together, with special education teachers often outperforming others in such programs. Still, variations in collaboration skill levels suggest ongoing support is needed to achieve consistently effective teamwork (Alsudairy, 2024) Finally, the setting of individualized goals through collaborative processes involving SPED teachers, parents, and other mediators represents a model for enhancing stakeholder engagement, though greater inclusion of all relevant parties remains a challenge (Peltomäki et al., 2021).

CONCLUSION

The study found that learners with intellectual disabilities experience considerable barriers to knowledge retention and academic progress, particularly in memory and recall, literacy skills, and receptive language. Home-based learning support was found to be provided only occasionally, indicating that structured academic reinforcement at home remains limited. Stakeholders also reported

moderate to severe challenges, particularly insufficient specialized SPED knowledge and limited financial resources, which affect their ability to effectively support learners. Furthermore, communication and collaboration between stakeholders and SPED teachers were perceived as only somewhat effective. These findings suggest that improving learner outcomes requires stronger school-home partnerships, enhanced stakeholder capacity through training, and increased access to educational resources and support services.

RECOMMENDATIONS

Based on the findings of the study, SPED teachers are encouraged to strengthen the use of individualized and learner-centered instructional strategies that improve memory retention, literacy, and receptive language skills among learners with intellectual disabilities. Schools should provide continuous professional development and capacity-building programs for teachers, parents, and other stakeholders to enhance their knowledge and skills in supporting learners effectively. Greater collaboration between schools, families, and the community should also be promoted through regular communication and coordinated learning activities to reinforce classroom instruction at home. Furthermore, educational authorities and local government units should allocate additional resources for learning materials, assistive technologies, and intervention programs that address the specific needs of learners with intellectual disabilities. Finally, future researchers are encouraged to conduct similar studies involving larger samples and different SPED settings while exploring additional variables and intervention strategies that may further improve knowledge retention and academic progress among learners with intellectual disabilities.

LIMITATIONS OF THE STUDY

This study was limited to 23 SPED stakeholders from the Diffun Central School-Integrated Special Education (SPED) Center, which may limit the generalizability of the findings to other schools or educational settings. The study employed a descriptive quantitative design that relied solely on the respondents' perceptions collected through a structured questionnaire. As such, the study did not examine causal relationships among variables or include the perspectives of learners and teachers. Additionally, factors such as school resources, instructional practices, and learners' individual characteristics were not extensively investigated and may have influenced the findings.

FUTURE RESEARCH DIRECTIONS

Future studies are encouraged to include larger sample sizes from different SPED centers and regions to improve the generalizability of the findings. Researchers may also employ mixed-methods or qualitative approaches to gain a deeper understanding of the experiences of parents, teachers, and learners with intellectual disabilities. Further investigations may examine the effectiveness of intervention programs, parent training, assistive technologies, and collaborative school-home strategies in improving knowledge retention and academic achievement. Longitudinal studies are likewise recommended to determine the long-term impact of educational and family support interventions on the academic and developmental outcomes of learners with intellectual disabilities.

ETHICS STATEMENT

Permission to conduct the study was obtained from the appropriate school authorities before data collection. Informed consent was secured from all participating SPED stakeholders after explaining the purpose, procedures, and significance of the study. Participation was entirely voluntary, and respondents were informed of their right to withdraw at any stage without penalty. The confidentiality and anonymity of all participants were strictly maintained, and all information collected was used solely for academic and research purposes. The study adhered to accepted ethical principles governing research involving human participants.

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AI DISCLOSURE STATEMENT

During the preparation of this work, the author(s) used [NAME TOOL / SERVICE] in order to [e.g., generate text, check grammar, analyze data, or assist with literature search]. After using this tool/service, the author(s) reviewed and edited the content as needed and take(s) full responsibility for the content of the published work.

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