

**A correlation on perceptions and engagement of general education teachers  
using assistive technology in Mandaue City**

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**ABSTRACT**

This study evaluated the impact of perceptions on the engagement levels of teachers utilizing Assistive Technology (AT) at Subangdaku Elementary School, Mandaue City, during the 2025-2026 academic year. Employing a descriptive-correlational approach, the study surveyed all 30 teachers to characterize their demographics, assess their perceptions and involvement levels, and ascertain the link among these characteristics. The findings indicated a largely female teaching staff with diverse expertise, notably emphasizing that more than half of the teachers possessed no or only minimal formal assistive technology training. Notwithstanding this, educators demonstrated a favorable overall perception, emphatically recognizing the significance of assistive technology for different learners and pinpointing training as a principal obstacle. Their engagement was substantial, especially in the adaptation of instructional ideas. A strong positive correlation was identified between perception and engagement, resulting in the rejection of the null hypothesis. This verifies that more positive perceptions forecast increased engagement in assistive technology utilization. The study reveals that although teachers are eager and active users of assistive technology, a significant training deficiency persists as a major obstacle. The proposed action plan emphasizing capacity-building, resource allocation, and the establishment of a collaborative community of practice should be executed to improve teacher competence and optimize assistive technology integration for students with disabilities.

**Keywords:** Special education, assistive technology, teacher perception, teacher engagement, inclusive education, descriptive-correlation, action plan, Toledo City

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**INTRODUCTION**

Education is a fundamental right of every individual, regardless of background or circumstance, and requires the provision of equitable access to high quality learning opportunities. This principle is particularly significant for learners with special educational

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needs, who often encounter substantial barriers to full participation in mainstream educational settings. Global research underscores both the promise and the challenges of inclusive practices supported by assistive technology. Flanagan, Bouck, and Richardson (2013) reported that although educators recognized the benefits of assistive technology for literacy instruction, its consistent implementation was constrained by limited administrative support, time pressures, and insufficient professional training. Similarly, Chukwuemeka and Samaila (2022) demonstrated that favorable perceptions of high technology assistive devices among educators do not automatically translate into sustained use when infrastructural and financial limitations are present. These findings highlight the complexity of translating positive attitudes into effective classroom practice.

Assistive technology has emerged as a key strategy in promoting inclusive education and improving learning outcomes for students with disabilities. It encompasses specialized tools and equipment designed to reduce barriers to participation and academic success, thereby enhancing communication, autonomy, and engagement. Internationally, assistive technology has been recognized as an essential component of inclusive educational systems. In the Philippines, its implementation in self-contained special education classrooms reflects both regulatory mandates and alignment with global inclusive education trends. However, despite these policy commitments, the deployment and sustained use of assistive technology in Philippine special education contexts remain uneven. Campado, Toquero, and Ulanday (2023) emphasized that effective integration depends heavily on adequate resources, structured training, and consistent institutional support. Persistent shortages in funding, professional development opportunities, and organizational backing continue to limit the full realization of assistive technology's potential benefits.

Within Mandaue City, preliminary observations suggest that teachers' perceptions of assistive technology, including their confidence, knowledge, and attitudes, significantly influence their level of engagement and actual utilization of these tools. Yet systematic and comprehensive assessments of these perceptions and engagement levels remain limited, particularly in local public-school settings. A rigorous quantitative examination of educators' perceptions and involvement with assistive technology is therefore essential to identify existing gaps and inform targeted improvements. Empirical evidence in this area can guide policy formulation, strengthen teacher training initiatives, and support more strategic resource allocation to enhance technology integration. Accordingly, this study investigates the relationship between educators' perceptions and their engagement in using assistive technology at Subangdaku Elementary School in Mandaue City. By doing so, it seeks to generate data driven insights that will contribute to the advancement of inclusive educational practices and the equitable provision of quality education tailored to individual learner needs.

The study is anchored in established psychological theories of behavior and technology adoption, alongside contemporary Philippine educational legislation that mandates inclusion, teacher development, and institutional support. Bandura's Self Efficacy Theory (1997) posits that individuals' beliefs in their capacity to perform specific tasks influence their motivation, persistence, and behavior. In educational contexts, teacher self-efficacy refers to educators' confidence in organizing and implementing instructional strategies effectively, including the integration of assistive technology. Recent research affirms that technological self-efficacy is a critical determinant of successful technology adoption, with higher levels of self-efficacy associated with greater willingness and competence in using digital tools in educational settings (Mangubat et al., 2025; Paetsch, 2023). Bandura identified mastery experiences, social modeling, verbal persuasion, and emotional states as central sources of self-efficacy, underscoring the importance of sustained training and institutional encouragement in strengthening teachers' confidence to use assistive technology effectively (Paetsch, 2023).

Complementing this perspective, Davis's Technology Acceptance Model (1989) explains technology use through the constructs of perceived usefulness and perceived ease of use. Educators are more inclined to adopt technology when they perceive it as beneficial to job performance and manageable to operate. External variables, including quality training, system reliability, and organizational support, shape these perceptions and subsequently influence behavioral intentions and actual usage (Mangubat et al., 2025). The model suggests that positive perceptions of assistive technology in special education are reinforced when educators understand its instructional value and feel competent in its application. Institutional support and intuitive design further strengthen engagement and sustained utilization (Mangubat et al., 2025; Gomez et al., 2021). Ajzen's Theory of Planned Behavior also contributes to this framework by highlighting the roles of attitudes, subjective norms, and perceived behavioral control in shaping behavioral intentions, thereby reinforcing the importance of supportive environments and positive professional norms in technology integration.

The theoretical foundations of this study are further reinforced by Philippine educational policies that institutionalize inclusive education. Republic Act No. 11650, known as the Inclusive Education Act of 2022, establishes a comprehensive national framework for inclusive education and mandates the creation of Inclusive Learning Resource Centers that provide services, Individualized Education Plans, and multidisciplinary support. This legislation aligns with international commitments such as the United Nations Convention on the Rights of Persons with Disabilities and the Sustainable Development Goals. Research underscores the significance of this law in strengthening support systems for assistive technology and teacher capacity building (De Vera & Santos, 2022; Ramos et al., 2024). The Implementing Rules and Regulations of RA 11650 (2024) further clarify the responsibilities of Inclusive Learning Resource Centers, including the provision of digital and assistive technologies and the integration of artificial intelligence assisted screening tools. Emphasis is placed on continuous professional development and collaboration with higher education institutions and nongovernmental organizations to enhance teacher preparedness (Khan et al., 2023; Mangubat et al., 2025).

In addition, the Department of Education's Digital and Artificial Intelligence Innovation initiatives for 2024 to 2025 operationalize RA 11650 by equipping Inclusive Learning Resource Centers with advanced tools such as Project SABAY, which supports early identification of learners with disabilities. These technologies reduce administrative burdens and enable data informed decision making, thereby strengthening teacher confidence in utilizing assistive devices (Campado, Toquero, & Ulanday, 2023; Lim et al., 2024). DepEd Order No. 10, s. 2024, which outlines the policies of the Matatag Curriculum, further emphasizes inclusive education and the strategic use of assistive technology. By mandating inclusive practices and resource allocation, this directive encourages educators to adapt instruction and employ assistive technologies to meet diverse learner needs (De Vera & Santos, 2022; Ramos et al., 2024). Collectively, these theoretical and legislative foundations establish a comprehensive framework for examining teachers' perceptions and engagement with assistive technology within inclusive classrooms.

The significance of this study lies in its potential contributions to multiple stakeholders within the educational community. By examining the perspectives and engagement levels of special education teachers in selected public schools in Mandaue City and Cebu Province during the 2025 to 2026 academic year, the research provides evidence-based insights into current practices and challenges. For the Department of Education, the findings offer a basis for evaluating and refining programs and policies related to assistive technology integration in inclusive classrooms. Understanding local educators' experiences enables the development of

targeted initiatives that promote equitable access to quality education for learners with special needs.

For school administrators, the results inform strategic decision-making regarding resource allocation, policy implementation, and the design of professional development programs that support teachers in effectively managing and applying assistive technology. Teachers benefit through opportunities for reflection on their experiences, attitudes, and instructional practices, enabling them to address identified challenges and enhance inclusive pedagogical approaches. Learners with disabilities are expected to experience improved academic outcomes and enriched educational engagement as teachers strengthen their competence and commitment to assistive technology use. The study also provides a foundation for researchers in developing interventions, recommendations, and strategies for inclusion in an action plan, which represents a key anticipated outcome of this investigation. Finally, future researchers may use this work as a reference for further exploration of inclusive education, teacher preparedness, infrastructure readiness, and student outcomes associated with assistive technology implementation, thereby extending the discourse and advancing inclusive educational practice in the Philippine context.

### Statement of the problem

This study will evaluate the perceptions and involvement of Special Education instructors in utilizing Assistive Technology at Subangdaku Elementary School in Mandaue City for the academic year 2025 to 2026, serving as a foundation for a proposed action plan. Specifically, it seeks to determine the characteristics of the respondents, assess their levels of perception and engagement in the use of Assistive Technology, examine the relationship between these variables, and develop an appropriate action plan based on the findings.

1. What is the profile of the respondents in terms of age and gender, highest educational attainment, years of teaching experience, types of disabilities of the learners, and degree of formal training on the use of Assistive Technology?
2. What is the level of perception of the respondents on the use of Assistive Technology?
3. What is the level of engagement of the respondents in the use of Assistive Technology?
4. Is there a significant relationship between the respondents' perception and engagement in the use of Assistive Technology?
5. Based on the findings of the study, what action plan can be proposed?

### METHODOLOGY

This study presented in detail the methods and processes undertaken to investigate the perceptions and engagement of special education teachers in the use of assistive technology at Subangdaku Elementary School in Mandaue City during the academic year 2025 to 2026. It systematically described the research design, research environment, respondents, instrumentation, data gathering procedures, ethical safeguards, statistical treatment, scoring procedures, and data analysis methods employed to address the research questions and achieve the objectives of the study.

The investigation utilized a descriptive correlational research design. According to Creswell (2014), a correlational design is appropriate when the researcher seeks to determine the degree of association between two or more variables without manipulating them. In this study, the descriptive component documented the demographic characteristics of the teachers, including age, gender, educational attainment, years of teaching experience, types of disabilities handled, and prior training in assistive technology. These variables provided contextual background for understanding possible variations in teachers' perceptions and

engagement in using assistive tools. The correlational component examined the relationship between teachers' perceptions of assistive technology and their level of engagement in its use.

The overall methodological flow followed an Input, Process, and Output framework to ensure transparency and systematic implementation. During the input phase, the researcher gathered essential information about the respondents' demographic profile, including age, gender, educational attainment, years of teaching experience, types of disabilities handled, and degree of formal training received in the use of assistive technology. This phase also included the identification of teachers' levels of perception toward assistive technology use and their levels of engagement in utilizing available assistive tools, as well as the determination of whether a significant relationship existed between these two variables. In the process phase, the researcher submitted a transmittal letter to secure approval for data collection. Upon approval, questionnaires were distributed to the respondents. The collected data were then organized and subjected to statistical treatment, analysis, and interpretation to answer the research questions. In the output phase, the findings of the study were used as the basis for the development of an Action Plan aimed at enhancing teachers' engagement and effectiveness in using assistive technology.

The study was conducted at Subangdaku Elementary School, a public basic education institution located at 597 Lopez Jaena Street, Barangay Subangdaku, Mandaue City, Cebu, approximately 1 kilometer away from Cebu City. The school serves learners at the kindergarten and elementary levels and caters to a diverse student population within the district of Mandaue. It has 44 functional classrooms that provide adequate space for instructional activities, including settings where assistive technology may be integrated into teaching and learning processes for learners with special needs. The institution is staffed by 74 teachers, some of whom are directly involved in inclusive education. The school accommodates a total of 1,977 students, including those who may benefit from specialized instructional support. Available learning resources include basic instructional materials and selected assistive technologies that support inclusive education practices. This environment provided a suitable setting for examining how teachers' perceptions influence their engagement in utilizing assistive technology within the context of inclusive instruction.

The respondents of the study were the 30 classroom teachers of Subangdaku Elementary School assigned across kindergarten and grade levels. Specifically, there were 2 teachers from Kindergarten representing 6.67%, 3 teachers from Grade 1 representing 10.00%, 5 teachers from Grade 2 representing 16.67%, 5 teachers from Grade 3 representing 16.67%, 5 teachers from Grade 4 representing 16.67%, 5 teachers from Grade 5 representing 16.67%, and 5 teachers from Grade 6 representing 16.67%, for a total of 30 teachers or 100.00% of the identified group. These teachers were directly involved in implementing instructional strategies and were in the best position to provide reliable insights regarding their perceptions and engagement in the use of assistive technology for learners with special needs. Because the total number of teachers was relatively small and manageable, the study employed a complete enumeration technique in which all 30 teachers were included as respondents. This approach ensured comprehensive data collection, eliminated sampling error, and allowed the findings to accurately represent the entire teaching population of the school.

The primary research instrument was a survey questionnaire designed to determine the perception of special education teachers regarding multiple aspects of assistive technology use in the classroom and to measure their level of engagement in using available assistive devices. The questionnaire was adapted from two validated studies of similar nature. Part II was adapted from Dimiri and Sunday (2024), which examined teachers' perceptions of the availability and utilization of assistive technology for pupils with learning disabilities in Eti Osa, Lagos State, Nigeria. Part III was adapted from the research of Campado, Toquero, and Ulanday (2023),

which explored the integration of assistive technology in teaching learners with special educational needs and disabilities in the Philippines.

The instrument consisted of three major sections. Part I gathered the demographic profile of the respondents, including age, gender, educational attainment, years of teaching experience, types of disabilities taught, and relevant training in assistive technology. Part II focused on the respondents' perception levels regarding assistive technology use and experiences. It assessed awareness and knowledge of available tools, compatibility and ease of use, confidence in utilization, learner responsiveness, administrative support, training, and ethical considerations. This section contained nine indicators rated on a 5-point Likert scale with response options of 5 for Strongly Agree, 4 for Agree, 3 for Neutral, 2 for Disagree, and 1 for Strongly Disagree. Part III measured the respondents' engagement with available assistive technology tools. It included eight indicators focusing on integration into IEP goals, learner access and encouragement, collaboration with colleagues, and ability to troubleshoot and explore new instructional technologies. This section also used a 5-point Likert scale with response options of 5 for Always, 4 for Often, 3 for Sometimes, 2 for Rarely, and 1 for Never.

The data gathering procedure began with a preliminary stage in which the researcher secured approval from the school head of Subangdaku Elementary School through a transmittal letter signed by the division superintendent. After approval was granted, coordination with school representatives was conducted to identify the 30 teacher respondents who participated in the study through purposive selection among those involved in special education instruction. The purpose and objectives of the study were clearly explained to the respondents, along with assurances of voluntary participation and confidentiality. Each respondent signed a consent form indicating willingness to participate.

During the data collection phase, printed survey questionnaires were personally administered to all 30 respondents during their non class hours or free periods to avoid disruption of instructional time. This approach ensured accurate administration and reliable data collection. After completion, all questionnaires were retrieved and examined for completeness and accuracy. The responses were organized and prepared for statistical treatment. Data were analyzed systematically to determine whether the results addressed the research objectives. A strict timeline was observed in processing the data, and all ethical standards were upheld throughout the study. Based on the findings, recommendations were formulated and an Action Plan was developed.

Ethical considerations were strictly observed. Informed consent was obtained from all respondents prior to data collection. The purpose of the study, procedures involved, and nature of the information to be gathered were thoroughly explained. Participation was voluntary, and respondents were informed that they could refuse or withdraw at any time without negative consequences. Their professional responsibilities or standing within the school were not affected by their decision to participate or not. Confidentiality was maintained by not recording respondents' names and by excluding personal identifiers from data analysis and reporting. Completed questionnaires were accessible only to the researcher and were used solely for academic purposes. Findings were presented in aggregated form to prevent identification of individual participants.

For statistical treatment, frequency and percentage were used to determine the demographic profile of the respondents in terms of age, gender, educational attainment, years of teaching experience, and technology proficiency. Weighted mean and standard deviation (SD) were used to determine the level of perceptions on the use of assistive technology and the level of engagement in using assistive technology among teachers. Pearson's  $r$  was employed to determine the significant relationship between the perceptions on the use of assistive technology and the level of engagement in using assistive technology among teachers.

The scoring procedure utilized a five-point Likert scale to measure both teachers' perceptions of assistive technology and their engagement levels in using such tools. Each item was assigned numerical values ranging from 1 to 5, where higher scores indicated more positive perceptions and higher levels of engagement. After data collection, responses were tallied and mean scores were computed for each item, each subscale, and the overall sections. The resulting means were interpreted based on predetermined descriptive ranges.

For perception toward assistive technology use, items were rated from Strongly Disagree with a value of 1 to Strongly Agree with a value of 5. Mean ranges were interpreted as follows: 4.21–5.00 was described as Strongly Agree, interpreted as teachers perceived assistive technology very positively, showing confidence and proactive use; 3.41–4.20 was described as Agree, interpreted as teachers generally viewed assistive technology positively though some reservations or inconsistencies in use may have existed; 2.61–3.40 was described as Neutral, interpreted as teachers expressed mixed or uncertain perceptions indicating noticeable barriers or doubts; 1.81–2.60 was described as Disagree, interpreted as teachers held negative perceptions or demonstrated low confidence in using assistive technology; and 1.00–1.80 was described as Strongly Disagree, interpreted as teachers displayed very low acceptance or unfavorable perceptions of assistive technology.

For engagement in the use of assistive technology, items were rated from Never with a value of 1 to Always with a value of 5. Mean ranges were interpreted as follows: 4.21–5.00 was described as Always, interpreted as teachers actively sought out, implemented, and advocated for the regular use of assistive technology; 3.41–4.20 was described as Often, interpreted as teachers consistently used assistive technology in classroom practices with noticeable enthusiasm; 2.61–3.40 was described as Sometimes, interpreted as teachers used assistive technology occasionally or only when prompted; 1.81–2.60 was described as Rarely, interpreted as teachers seldom used assistive technology despite its availability; and 1.00–1.80 was described as Never, interpreted as teachers did not use assistive technology at all.

## RESULTS AND DISCUSSION

This chapter presents and analyzes the empirical findings derived from the 30 classroom teachers of Subangdaku Elementary School who participated in the study during the academic year 2025–2026. Guided by a descriptive correlational research design and employing complete enumeration of all 30 teachers, data were gathered through a structured survey questionnaire adapted from validated instruments and analyzed using frequency, percentage, weighted mean, standard deviation (SD), and Pearson's *r*. The discussion that follows is grounded strictly in the data collected and interpreted in direct relation to the objectives of the study, which sought to describe the respondents' demographic profile, determine their level of perception and engagement in the use of assistive technology, and examine the relationship between these two variables.

With respect to age and gender, the results revealed that 26 out of 30 respondents were female, representing 86.67%, while 2 respondents or 6.67% were male, and 2 respondents or 6.67% preferred not to say. In terms of age distribution, the largest group belonged to the 25–34 age bracket, comprising 14 teachers or 46.67% of the total sample. Within this group, 10 were female representing 33.33%, 2 were male representing 6.67%, and 2 preferred not to say representing 6.67%. The 35–44 age group included 8 female teachers or 26.67%. The 45–54 bracket consisted of 7 female teachers or 23.33%, and the 55–64 group included 1 female teacher or 3.33%. No male respondents were recorded in the 35–44, 45–54, and 55–64 age categories, and no respondents who preferred not to say were recorded in the 55–64, 45–54, and 35–44 brackets. Overall, the age and gender distribution indicates a predominantly female

teaching workforce concentrated in the younger to middle age ranges, particularly 25–34 years at 46.67%. This demographic profile suggests a relatively young and potentially technology receptive group of educators, which may positively influence their adaptability to assistive technology. However, the limited representation of males at 6.67% and older teachers at 3.33% in the 55–64 bracket may reduce demographic variability in perspectives. These findings are consistent with Alsolami (2022), Campado, Toquero, and Ulanday (2023), and Quiño-Justol (2024), who emphasized that age and gender can influence technological proficiency and attitudes toward assistive technology, thereby underscoring the importance of demographic sensitive professional development.

Regarding highest educational attainment, 19 teachers or 63.33% held a Bachelor's degree, while 11 teachers or 36.67% held a Master's degree, for a total of 30 respondents or 100%. This distribution indicates that the majority of respondents possessed undergraduate qualifications, with a substantial proportion pursuing or having completed graduate level education. The presence of 36.67% with Master's degrees reflects a commitment to professional advancement and aligns with educational standards promoting continuing development. Such academic preparation may contribute to enhanced pedagogical competence and openness to evidence-based practices, including the integration of assistive technology. These results align with Allassaf et al. (2025), Baldonado (2025), and Rüger et al. (2025), who found that advanced educational qualifications positively influence teachers' knowledge, attitudes, and application of inclusive and technology supported practices.

In terms of years of teaching experience, 3 teachers or 10.00% had 0–2 years of experience, 3 teachers or 10.00% had 3–5 years, 13 teachers or 43.33% had 6–10 years, and 11 teachers or 36.67% had 11 years and above, totaling 30 teachers or 100.00%. The largest group consisted of those with 6–10 years of experience at 43.33%, followed closely by those with 11 years and above at 36.67%. This distribution reflects a workforce composed largely of mid-career and experienced educators, with 80.00% having at least 6 years of experience. The coexistence of novice and seasoned teachers suggests potential for peer mentoring and collaborative learning in assistive technology integration. Consistent with Campado, Toquero, and Ulanday (2023), Mukhtarkyzy (2025), and Starks et al. (2023), teaching experience can influence both readiness and adaptability to technology, with experienced teachers contributing classroom management expertise and novice teachers contributing recent training exposure.

The types of disabilities handled by the teachers were reported as multiple responses. Intellectual Disability received 15 responses and ranked 1, Others received 14 responses and ranked 2, Physical Disability received 11 responses and ranked 3, Visual Impairment received 9 responses and ranked 4, Autism Spectrum Disorder received 7 responses and ranked 5, and Hearing Impairment received 5 responses and ranked 6. The prominence of Intellectual Disability at 15 responses indicates that cognitive and adaptive needs are central concerns in the school's inclusive setting. The presence of 14 responses under Others further reflects the diversity of disability profiles encountered by teachers. This distribution underscores the necessity for flexible and adaptive assistive technology solutions capable of addressing varied learner needs. These findings support Campado, Toquero, and Ulanday (2023), Alvarado et al. (2024), and Fernandez and Lopez (2025), who emphasized that comprehensive disability profiling is essential for effective resource allocation and targeted assistive technology deployment.

Concerning the degree of formal training in the use of assistive technology, 9 teachers or 30.00% reported None, 6 teachers or 26.67% reported Limited, 9 teachers or 30.00% reported Moderate, 3 teachers or 10.00% reported Adequate, and 1 teacher or 3.33% reported Highly Adequate, for a total of 30 respondents or 100.00%. The equal proportion of 30.00% reporting None and 30.00% reporting Moderate training highlights a substantial gap in comprehensive preparation. Only 13.33% combined reported Adequate or Highly Adequate

training. This indicates that a majority of teachers, specifically 56.67% when combining None and Limited, lack sufficient formal training in assistive technology. Such a deficiency may limit confidence and effective integration, consistent with Adams et al. (2023), Gomes et al. (2024), and Oyedokun (2024), who identified structured training as a critical determinant of successful assistive technology implementation.

The level of perception of the respondents toward assistive technology was measured across nine indicators. The weighted means ranged from 3.50 to 4.33, all falling within the Positive or Very Positive categories according to the legend where 4.21–5.00 indicates Very Positive and 3.41–4.20 indicates Positive. The highest mean was for the statement “I believe assistive technology supports students with diverse learning needs” with WM=4.33 and SD=0.88, categorized as Very Positive. The statement “Lack of training is a major barrier to using assistive technology effectively” obtained WM=4.23 and SD=0.82, also categorized as Very Positive. Other indicators included “I believe assistive technology is user-friendly and practical for daily classroom use” with WM=4.20 and SD=0.89 categorized as Positive, “I believe that the assistive technology available to me upholds ethical standards such as privacy, equity, and respect for students’ rights” with WM=4.03 and SD=0.81 categorized as Positive, “The cost of assistive technology limits its use in my classroom” with WM=3.80 and SD=0.85 categorized as Positive, “My learners are responsive to the assistive technology used in the classroom” with WM=3.77 and SD=1.01 categorized as Positive, “School administrators support the use of assistive technology” with WM=3.77 and SD=0.94 categorized as Positive, “I have sufficient knowledge to integrate assistive technology into my lessons” with WM=3.50 and SD=1.20 categorized as Positive, and “I feel confident in selecting appropriate assistive technology for my students” with WM=3.47 and SD=1.22 categorized as Positive. The aggregate mean was 3.90 with an aggregate standard deviation of 0.96, interpreted as Positive. These results indicate an overall favorable perception of assistive technology, with strong acknowledgment of its benefits for diverse learners, while simultaneously recognizing training and cost as significant barriers. This pattern supports Smith et al. (2023), Johnson and Lee (2024), and Kumar et al. (2025), who demonstrated that positive perceptions and recognition of practical value are central to technology acceptance.

The level of engagement in the use of assistive technology was measured using eight indicators. Weighted means ranged from 3.37 to 3.77. According to the legend where 4.21–5.00 indicates Very High, 3.41–4.20 indicates High, and 2.61–3.40 indicates Moderate, seven indicators were categorized as High and one as Moderate. The highest WM was for “I modify lesson plans to incorporate assistive technology” with WM=3.77 and SD=1.14 categorized as High. “I use assistive technology when delivering instruction” had WM=3.70 and SD=1.02 categorized as High, and “I encourage students to use assistive technology independently” had WM=3.70 and SD=1.21 categorized as High. “I integrate assistive technology in Individualized Education Programs (IEPs)” had WM=3.67 and SD=1.03 categorized as High, “I collaborate with other teachers to use assistive technology” had WM=3.63 and SD=1.13 categorized as High, “I regularly update or explore new assistive technology tools” had WM=3.57 and SD=1.17 categorized as High, and “I provide students with access to assistive devices during class activities” had WM=3.53 and SD=1.20 categorized as High. The only indicator categorized as Moderate was “I troubleshoot or help maintain assistive devices when needed” with WM=3.37 and SD=1.13. The aggregate mean was 3.62 with an aggregate standard deviation of 1.13, interpreted as High. These findings indicate consistent and active engagement in assistive technology use, particularly in instructional modification and integration into planning processes, although technical troubleshooting skills appear comparatively less developed. This aligns with Surajudeen et al. (2023), Abu-Alghayth et al.

(2020), and Campado, Toquero, and Ulanday (2023), who emphasized that teacher preparedness and supportive contexts foster sustained engagement.

The relationship between perception and engagement was examined using Pearson's  $r$ . The computed  $r$ -value was 0.803, indicating a Strong Positive correlation. The  $p$ -value was 0.000, which is less than 0.05 at a two tailed significance level, leading to the rejection of the null hypothesis. The result was marked as Significant at  $p < 0.05$ . This indicates that as teachers' perceptions of assistive technology become more positive, their level of engagement correspondingly increases. The strength of  $r = 0.803$  reflects a substantial association, suggesting that perception is a powerful predictor of engagement. This finding is consistent with Aldunate and Nussbaum (2021), Lamond and Cunningham (2020), and Lim et al. (2024), who reported that favorable attitudes and confidence significantly influence the adoption and sustained use of assistive technologies in educational contexts.

In synthesis, the findings reveal a predominantly female and mid-career teaching workforce, largely holding Bachelor's degrees, with substantial experience and diverse exposure to disability categories, yet with notable gaps in formal training in assistive technology. Teachers demonstrated an overall Positive perception with an aggregate mean of 3.90 and High engagement with an aggregate mean of 3.62. The statistically significant Strong Positive correlation of  $r = 0.803$  with  $p = 0.000$  confirms that perception and engagement are closely linked, and the null hypothesis was rejected at  $p < 0.05$ . Collectively, these results address the research objectives by establishing the demographic profile of respondents, quantifying their perception and engagement levels, and empirically verifying the relationship between the two variables. The findings contribute to the field by reinforcing theoretical assertions that attitudes and self-efficacy influence technology integration, and they provide a data-based foundation for developing targeted professional development and policy interventions. The next chapter will build upon these findings by presenting conclusions and formulating recommendations and an action plan designed to strengthen assistive technology integration in inclusive classrooms.

## CONCLUSION

This study examined the relationship between teachers' perceptions and their engagement in utilizing Assistive Technology at Subangdaku Elementary School in Mandaue City during the academic year 2025-2026. Using a descriptive correlational research design, data were collected from all 30 teachers through a survey questionnaire and analyzed to determine demographic characteristics, levels of perception, levels of engagement, and the strength of association between these two key variables. The findings provided the empirical basis for the development of a proposed action plan intended to strengthen Assistive Technology integration within the school's inclusive education program.

The results demonstrated that the teacher-respondents were predominantly female, with the largest age group falling within 25-34 years. In terms of educational qualifications, more than half of the respondents held a Bachelor's degree, while a smaller proportion had attained a Master's degree, reflecting a workforce that is academically prepared yet still characterized by a majority at the undergraduate level. The distribution of teaching experience revealed that most respondents had 6-10 years of experience or 11 years and above, indicating a relatively seasoned cohort with substantial classroom exposure. The teachers reported serving learners with diverse disabilities, with Intellectual Disability emerging as the most frequently identified category. This diversity of learner needs underscores the complexity of instructional demands and the importance of adaptable assistive technology practices.

A critical finding of the study was the degree of formal training in Assistive Technology. Although some respondents reported moderate training, a significant proportion indicated

limited or no formal training. Specifically, 30% reported no training, 26.67% reported limited training, and 30% reported moderate training, while only 10% and 3.33% reported adequate and highly adequate training, respectively. These results collectively indicate that 56.67% of the teachers experienced insufficient or minimal preparation in Assistive Technology. This substantial gap highlights a structural weakness in professional development that may constrain the effective and confident implementation of assistive tools in inclusive classrooms.

Despite these training limitations, the overall perception of Assistive Technology among respondents was favorable. Teachers expressed highly positive views regarding the role of Assistive Technology in addressing diverse learning needs and recognized that lack of training constitutes a major barrier to effective implementation. Their acknowledgment of both the benefits and constraints of Assistive Technology reflects a level of professional awareness and critical reflection. Furthermore, respondents demonstrated a high level of engagement in the use of Assistive Technology. The strongest area of engagement was in modifying lesson plans to incorporate assistive tools, followed by frequent use of Assistive Technology during instruction and encouragement of independent student use. These findings indicate that teachers are not merely receptive to Assistive Technology in principle but are actively integrating it into classroom practices, planning processes, and learner support strategies.

Most importantly, the study established a strong positive correlation between teachers' perceptions and their engagement in the use of Assistive Technology. The statistically significant relationship led to the rejection of the null hypothesis, confirming that more favorable perceptions are associated with higher levels of active engagement. This finding substantiates the theoretical premise that attitudes, confidence, and perceived value directly influence instructional behavior. In practical terms, it suggests that strengthening teachers' perceptions through targeted interventions can meaningfully enhance their level of engagement and sustained use of Assistive Technology.

In light of these findings, the study concludes that teachers' perceptions at Subangdaku Elementary School significantly influence their level of engagement with Assistive Technology. Educators who hold favorable views regarding the usefulness, ethical soundness, and institutional support of Assistive Technology are more inclined to incorporate it into lesson design, classroom instruction, collaboration, and individualized planning. Consequently, cultivating and reinforcing positive perceptions is essential for promoting active, consistent, and sustainable Assistive Technology utilization in inclusive classrooms. However, the pronounced deficiency in formal training presents a major obstacle that must be addressed to translate positive attitudes into optimal instructional practice.

Based on the evidence generated, it is therefore recommended that the proposed Action Plan be formally adopted and implemented to strengthen teachers' knowledge, technical proficiency, and self-efficacy in Assistive Technology use. The rationale for the Action Plan stems directly from the finding that 56.67% of teachers reported insufficient or minimal training, indicating an urgent need for systematic and structured professional development. The Action Plan seeks to provide comprehensive and hands-on capacity building that transforms favorable perceptions into more confident, skillful, and effective classroom implementation.

The objectives of the proposed intervention include enhancing teachers' technical competence in operating and integrating various Assistive Technology tools into daily instruction and Individualized Education Programs, increasing self-efficacy in selecting, troubleshooting, and maintaining assistive devices, fostering a sustainable community of practice through collaborative Learning Action Cells, strengthening competencies in modifying lesson plans to embed Assistive Technology aligned with diverse learner needs, and improving teachers' capacity to promote student independence in using assistive tools. The implementation strategy involves leadership from the School Head and Inclusive Education

Coordinator in collaboration with the researcher and Master Teachers. It begins with a needs analysis informed by the study's findings, followed by structured capacity-building workshops conducted throughout the academic year, the establishment of peer coaching systems, the development of a simple troubleshooting guide, and ongoing monitoring and evaluation to assess effectiveness and guide necessary adjustments.

Financial provisions were identified to support these initiatives, including Php 15,000 from MOOE and School Fund for hands-on workshops, Php 2,000 from MOOE for peer coaching and troubleshooting materials, Php 3,000 from MOOE for lesson plan integration workshops, and Php 5,000 from MOOE and Donations for structured AT Station activities, with monthly Learning Action Cell sessions conducted without additional budget allocation. These planned activities are expected to increase teacher proficiency and confidence, enable independent resolution of basic Assistive Technology issues, cultivate a collaborative culture of shared best practices, generate a portfolio of Assistive Technology integrated lesson plans, and promote observable increases in students' independent use of assistive tools during class activities.

Overall, the study affirms that while teachers at Subangdaku Elementary School already demonstrate positive perceptions and high engagement in Assistive Technology use, the sustainability and depth of integration depend on systematic training, institutional support, and collaborative professional development. By implementing the proposed Action Plan, the school can strengthen teachers' competencies, bridge the identified training gap, and enhance inclusive educational outcomes for learners with disabilities. In doing so, the research contributes to the broader discourse on inclusive education by empirically demonstrating that perception is a critical driver of engagement and that structured professional development is indispensable in maximizing the potential of Assistive Technology in public school contexts.

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