Instructors' Extent of Inclusive Practices in Teaching Learners with Sensory Impairments in a Teacher Education Institution

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ABSTRACT

This study explored the extent of inclusive practices among college instructors in teaching learners with sensory impairments at Saint Mary's University. It aimed to assess instructors' training and professional development, determine the degree to which inclusive teaching strategies are implemented, and identify challenges faced in inclusive classrooms. Using a quantitative-qualitative approach, the study was conducted among 17 college instructors from the School of Teacher Education and Humanities identified through purposive sampling. Data were collected using a Likert scale questionnaire and a written interview with six open-ended items. Quantitative findings revealed that instructors exhibited an expert level of inclusivity, especially in communicative scaffolding strategies (M=4.56), followed by personalized instruction and assessment practices. However, a notable gap in formal training, units earned, and certifications in inclusive education was identified. The qualitative data further highlighted common challenges, including insufficient preparation, limited access to adaptive teaching resources, time constraints, and a lack of institutional support. These findings underscore the importance of enhancing teacher training programs, developing accessible teaching materials, and establishing stronger institutional frameworks to support inclusive education. Ultimately, the study advocates for continuous professional development and systemic reforms to ensure equitable and effective education for learners with sensory impairments.

Keywords: assistive technology, collaborative teaching, inclusion, teacher training, universal design for learning (UDL)

INTRODUCTION

Inclusive education has become a global priority in creating equitable learning environments where all students, regardless of their abilities or disabilities, are given the opportunity to learn and succeed. This approach aligns with the principles of Education for All (EFA) and the Salamanca Statement, which emphasize the right of every learner—especially those from marginalized and vulnerable groups—to access quality and inclusive education. In the Philippines, Republic Act No. 11650 supports this vision by mandating inclusive educational services and individualized learning support for learners with disabilities.

Sensory impairments, such as visual and hearing disabilities, significantly affect a learner's ability to interact with their surroundings and fully participate in academic settings. According to the World Health Organization (2025), at least 2.2 billion people have vision impairment or blindness, while over 466 million individuals experience disabling hearing loss. These impairments not only affect sensory perception but also limit access to classroom communication, materials, and participation (American Psychological Association, 2013; Marschark et al., 2015).

Teachers play a central role in making inclusive education effective. Their training, attitudes, and instructional practices directly influence how students with disabilities experience learning. According to UNESCO (2017), teachers' readiness, delivery, and adaptability are core components in fostering successful and sustainable inclusive education. Studies show that positive teacher attitudes and prior exposure to disability training correlate with better implementation of inclusive practices (Sharma et al., 2008; Avramidis & Norwich, 2002). However, in the Philippine setting, many educators have limited personal or professional

experience with inclusive education, highlighting the need for enhanced training and support (Bradshaw & Mundia, 2006; Muega, 2016).

Despite progressive laws, many teachers—especially in higher education—continue to face barriers in implementing inclusive education. These include limited professional development opportunities, lack of access to assistive technologies and resources, and insufficient administrative support (Dela Fuente, 2021; Galleto & Bureros, 2017). Without targeted training in strategies such as personalized instruction, communicative scaffolding, and collaborative assessment, instructors may struggle to meet the diverse needs of learners with sensory impairments (Hehir et al., 2016; Tomlinson, 2014).

Saint Mary's University (SMU), located in Bayombong, Nueva Vizcaya, has been a pioneer in inclusive higher education in the region. Since the early 2000s, SMU has accepted students with special educational needs, including those with visual and hearing impairments. From 2019 to the current academic year, the School of Teacher Education and Humanities (STEH) recorded nine students with sensory impairments. However, no systematic assessment has been conducted on the extent to which SMU instructors apply inclusive practices in their teaching.

This study is anchored on the Index of Inclusion (Booth & Ainscow, 2011), which provides a framework for evaluating institutional policies, practices, and culture through an inclusive lens. It is also grounded in Ajzen's Theory of Planned Behavior (TPB), which explains how individuals' attitudes, perceived behavioral control, and subjective norms shape their intentions and behaviors—in this case, how instructors implement inclusive education (Ajzen, 2005).

Given this context, this study aims to determine and describe the inclusive practices of college instructors of Saint Mary's University in general classes to educate learners with special educational needs, specifically learners with sensory impairment. The study was conducted over the 1st semester of the academic year 2024-2025 and sought to discover the level of training and professional development teachers have received in inclusive education in terms of seminars attended, units earned in inclusive education courses, and certifications in special education or related fields; the extent of inclusive practices of college instructors in terms of Personalized Instructional Strategies (PIS), Communicative Scaffolding Strategies (CSS), and Collaboration and Assessment Strategies (CAS); and the challenges encountered by the college instructors in terms of teaching resources or materials, training or professional development, and administrative or peer support.

METHODOLOGY

This study employed a mixed-methods design, combining quantitative and qualitative approaches to explore the extent of inclusive practices among college instructors in teaching learners with sensory impairments. The quantitative component utilized structured surveys to gather numerical data on teacher training, professional development, and self-reported inclusive practices. Meanwhile, the qualitative component consisted of written interviews to gain in-depth insights into the instructors' experiences, challenges, and strategies when teaching students with visual or hearing impairments. This approach allowed the researchers to triangulate data and provide a comprehensive understanding of the current status of inclusive education in the higher education context, particularly within the School of Teacher Education and Humanities (STEH) at Saint Mary's University, a private Catholic institution located in Bayombong, Nueva Vizcaya, Philippines. SMU is recognized for its commitment to inclusive education and diversity, and since the early 2000s, it has accepted students with special educational needs. The STEH, in particular, has recorded nine learners with sensory impairments from 2019 to the academic year 2024–2025, which makes it a relevant setting for this study.

The participants were college instructors from the School of Teacher Education and Humanities (STEH) at SMU who had taught general or specialist courses between 2019 and 2024. A purposive sampling method was used to select participants who met the following inclusion criteria: instructors who have taught learners with sensory impairments (visual or hearing) between 2019 and 2024, instructors with or without formal training in special or inclusive education, and instructors who were currently teaching or had previously taught in STEH.

Out of 102 faculty members in STEH, 34 instructors were identified as having handled learners with sensory impairments. From this group, 17 instructors voluntarily completed the survey and written interview, forming the final sample of the study. Retired instructors were excluded.

The study utilized a three-part research tool composed of a demographic survey, a standardized Likert-scale questionnaire, and a written interview. The demographic profile sheet gathered participants' background information, including sex, highest educational attainment, seminars attended, units earned, and certifications in inclusive education or related fields. The Inclusive Practices Scale (IPS), adapted from Sharma et al. (2021), is a 5-point Likert scale that measured instructors' inclusive practices across three dimensions: Personalized Instructional Strategies (PIS), Communicative Scaffolding Strategies (CSS), and Collaboration and Assessment Strategies (CAS). The tool demonstrated high internal consistency (reliability = 0.97) and was modified for the local context. In the written interview, the tool was adapted and modified from Dela Fuente (2021). This portion included six open-ended questions designed to explore instructors' lived experiences, challenges, and strategies in teaching students with sensory impairments.

Before data collection, the research proposal and instruments were submitted to the Saint Mary's University Research Ethics Board (SMUREB) for review and approval. Following ethical clearance, permission was secured from the institution head.

Quantitative data from the Inclusive Practices Scale were analyzed using descriptive statistics. The mean scores were interpreted using the following scale:

Table 1
Legend in interpreting quantitative data

Scale	Range	Qualitative Description	Interpretation
5	4.20 – 5.00	Expert level of inclusivity	Very high extent of inclusive practice
4	3.40 – 4.19	Proficient level of inclusivity	High extent of inclusive practice
3	2.60 – 3.39	Moderate level of inclusivity	Moderate extent of inclusive practice
2	1.80 – 2.59	Developing level of inclusivity	Low extent of inclusive practice
1	1.00 – 1.79	Novice level of inclusivity	Very low extent of inclusive practice

(Source: Sharma et. al. 2021)

Qualitative data from the written interviews were analyzed using Colaizzi's (1978) method for phenomenological analysis, which includes: reading and re-reading transcripts to gain familiarity, extracting significant statements, formulating meanings from statements, organizing meanings into themes, developing an exhaustive description, identifying the essential structure, and validating findings with participants (member checking).

To ensure rigor, the researchers considered transferability, credibility, dependability, and confirmability. An audit trail was maintained, and peer debriefing and transcript validation were conducted to strengthen the trustworthiness of findings.

The study strictly adhered to ethical research protocols. Respondents were given full information about the study and signed informed consent forms. Their responses were anonymized using pseudonyms and only the researchers and adviser had access to identifying information. All data would be destroyed after the research is concluded and submitted.

RESULTS AND DISCUSSION

Section 1. Level of Teacher Training and Professional Development in Inclusive Education

Table 1

Summary of Training and Professional Development Teachers Received in Inclusive Education

Respondent	Seminars	Units Earned	Certification	Level
1	None	0	None	None
2	Pedagogy in Teaching, ICT Innovation, Curriculum Quality Audit	0	Curriculum Quality Audit Specialist	National
3	None	0	None	None
4	Project STELLAR 2023	0	None	Institutional
5	Teaching and assessing learners with sensory impairment	0	None	Institutional
6	Innovation meeting on Teaching and Assessing Learners with Sensory Impairment	0	None	Institutional
7	Symposium on Ethical Principles (Thomas Aquinas on Natural Law, Jeremy Bentham and John Stuart Mill on Utilitarianism)	40	None	National
8	None	3	None	None
9	Project STELLAR	0	None	Institutional
10	STEH INSET SY 2018 and 2023-2024	0	None	Institutional
11	None	0	None	None
12	None	3	None	None
13	INSET (SY 2022-2023)	0	None	Institutional
14	Innovation meeting on Teaching and Assessing Learners with Sensory Impairment	0	None	Institutional
15	None	9	None	None
16	None	0	None	None
17	None	0	None	None

This study revealed significant gaps in teacher training and professional development for inclusive education, particularly regarding students with sensory impairments. The findings indicate that most teachers have minimal exposure to specialized training in inclusive education practices. Of the 17 respondents, only 8 had attended any seminars related to inclusive education, with most of these being general pedagogical workshops rather than focused training on accommodating students with special needs.

The data also highlighted limited formal education in inclusive teaching practices, with 12 out of 17 respondents reporting zero units earned in inclusive education courses. This aligns with Dalanon and Matsuka's (2017) findings emphasizing that participation in targeted training is crucial for preparing educators to effectively manage diverse classroom environments. The lack of specialized knowledge may significantly impair teachers' ability to implement appropriate instructional adaptations for students with sensory impairments.

Furthermore, the near-absence of certifications in special education among respondents (only one had any certification, which was not directly related to inclusive education) suggests a critical need for more structured and credentialed training programs. As Raya et al. (2023) demonstrated, there is a positive correlation between specialized training and teaching competence in inclusive settings.

These findings underscore the urgent need to enhance professional development opportunities in inclusive education for college instructors. Without sufficient training, many teachers may struggle with implementing differentiated instruction and effective assessment strategies for learners with sensory impairments. As Dioso et al. (2022) concluded, teachers' readiness for inclusive education is established through the provision of adequate training and professional development.

The study recommends increasing access to targeted seminars and workshops focusing on inclusive teaching strategies, particularly for accommodating learners with sensory

impairments. Additionally, institutions should encourage the pursuit of formal education and certifications in special education while fostering a supportive environment for continuous professional learning in inclusive practices.

Section 2. Extent of Inclusive Practices Among College Instructor

Table 3

Extent of Inclusive Practices Among College Instructors

Statement	Mean	SD	QD
PISQ1. I modify instruction to meet the diverse learning needs of students.	4.29	0.59	*ELI*
PISQ2. I plan instruction to address the strengths of students.	4.24	0.66	*ELI*
PISQ3. I relate learning activities to students' personal and family experiences.	4.53	0.51	*ELI*
PISQ4. I use a variety of instructional strategies within the learning activity to engage students.	4.29	0.69	*ELI*
PISQ5. I plan instruction to address interests of students.	4.47	0.51	*ELI*
PISQ6. I adapt materials and resources to meet diverse learning needs.	4.12	0.86	
PISQ7. I design learning experiences that connect prior content knowledge to new learning.	4.29	0.69	*ELI*
PISQ8. I select curricular materials and resources that align with student learning goals.	4.00	0.71	*PLI*
PISmean	**4.28**	**0.44**	*ELI*
CSSQ1. I provide equal opportunities for students to ask questions.	4.76	0.44	*ELI*
CSSQ2. I provide students with opportunities to interact with peers.	4.65	0.61	*ELI*
CSSQ3. I ask effective questions that match instructional goals.	4.53	0.51	*ELI*
CSSQ4. I respond appropriately to students' questions/comments.	4.59	0.62	*ELI*
CSSQ5. I articulate high expectations of students.	4.29	0.69	*ELI*
CSSQ6. I use strategies to motivate learners.	4.71	0.47	*ELI*
CSSQ7. I provide regular opportunities for students to collaborate with others.	4.59	0.51	*ELI*
CSSQ8. I provide frequent and appropriate feedback during class activities.	4.35	0.61	*ELI*
CSSQ9. I create a safe learning environment where students feel encouraged to take risks.	4.59	0.62	*ELI*
CSSQ10. I have established standards of conduct, and they are clear to students.	4.59	0.62	*ELI*
CSSmean	**4.56**	**0.41**	*ELI*
CASQ1. I make test accommodations when necessary.	4.53	0.62	*ELI*
CASQ2. I collaborate with teammates to support student learning.	4.00	0.79	*PLI*
CASQ3. I regularly share information and/or best practices with colleagues to improve practice.	4.06	0.66	*PLI*
CASQ4. I engage with families to share information and strategies to enhance student learning.	3.65	1.06	*PLI*
CASQ5. I encourage students to reflect on what they have learned.	4.65	0.61	*ELI*
CASQ6. I use a variety of assessment strategies to measure student progress.	4.24	0.56	*ELI*
CASQ7. I use a number of strategies to prevent behavioral disruptions in class.	4.24	0.66	*ELI*
CASQ8. I make each student learn according to his/her ability and potential.	4.24	0.83	*ELI*
CASmean	**4.20**	**0.47**	*ELI*
Overall	**4.36**	**0.39**	*ELI*

Legend: 4.20 - 5.00 | Expert level of inclusivity (ELI) *3.40 - 4.19 | Proficient level of inclusivity (PLI)*
2.60 - 3.39 | Moderate level of inclusivity (MLI) *1.80 - 2.59 | Developing level of inclusivity (DLI)*
1.00 - 1.79 | Novice level of inclusivity (NLI)

The findings of this study reveal that college instructors demonstrate an overall expert level of inclusivity in their teaching practices (M = 4.36, SD = 0.39). This suggests that, despite varying levels of formal training in inclusive education, many instructors are implementing practices that align with inclusive principles, especially in fostering equitable classroom interactions and adapting instruction to student needs.

Among the three measured domains, Communicative Scaffolding Strategies (CSS) received the highest mean score (M = 4.56, SD = 0.41), indicating a strong emphasis on building inclusive communication. Instructors reported consistently encouraging interaction, providing appropriate feedback, and creating emotionally safe environments for learners. This reflects the core tenets of Vygotsky's sociocultural theory, which underscores the importance of social interaction and guided participation in meaningful learning (Sarmiento-Campos et al., 2022). These strategies are particularly important for students with hearing or visual impairments who rely on accessible, multimodal communication to participate fully in class discussions (Guardino & Antia, 2012).

Personalized Instructional Strategies (PIS) also showed an expert level of inclusivity (M = 4.28, SD = 0.44). Teachers actively tailored lessons based on learners' interests and prior experiences. This finding supports the importance of culturally responsive and student-centered instruction, as advocated by scholars such as Hammond (2015) and Ladson-Billings (1995). Personalized teaching helps students with disabilities feel more connected and valued in the classroom, which promotes motivation and engagement (Gay, 2018). However, the relatively lower score for selecting inclusive curricular materials (M = 4.00) highlights a persistent barrier: the availability of accessible and adapted instructional resources. As Al-Azawei et al. (2016) emphasized, effective inclusive instruction depends not only on teacher strategies but also on the accessibility of learning materials, especially for students with sensory impairments.

The dimension with the lowest mean, although still within the expert range, was Collaboration and Assessment Strategies (CAS) (M = 4.20, SD = 0.47). While instructors are encouraging reflective learning and providing assessment accommodations, challenges were observed in terms of collaborating with families (M = 3.65) and colleagues (M = 4.00–4.06). These lower scores fall under the "proficient" category, suggesting gaps in consistent collaboration practices. Studies by Mann and Gilmore (2021) point to common barriers such as lack of time, communication gaps, and limited institutional frameworks to support collaboration. In the Philippine context, large class sizes and limited administrative support may further constrain these efforts (Muega, 2016; Dela Fuente, 2021).

These findings align with Sharma et al. (2016), who concluded that the implementation of inclusive practices improves with experience and self-efficacy, even when formal training is lacking. However, the disparity between high inclusivity scores and the previously identified lack of training (Section 1) raises concerns about sustainability. Teachers may be compensating through instinct, trial-and-error, or informal experience, which could lead to burnout or inconsistent accommodations for students with disabilities (Cambridge-Johnson et al., 2014).

Moreover, although inclusive teaching practices are being applied at a high level, the institutional support structures needed to sustain these efforts—such as resource development, collaboration protocols, and inclusive learning environments—remain limited. As Forlin (2012) and Hartman et al. (2023) emphasized, systemic support, including leadership and peer networks, is critical for maintaining inclusive practices.

Section 3. Challenges Faced by College Instructors in Implementing Inclusive Practices

3.1 Teaching Experience with Learners with Sensory Impairments

Despite demonstrating expert-level inclusive practices in instruction (as shown in Section 2), the college instructors at Saint Mary's University face significant challenges in implementing inclusive education for learners with sensory impairments. These challenges fall under five major themes: inadequate preparation and training, resource development and material adaptation, instructional strategy adjustment, technology and accessibility barriers, and limited institutional support.

Inadequate Preparation and Training

A prevailing theme across respondents' narratives is the lack of proper training and preparation in handling students with visual or hearing impairments. Many instructors expressed feeling unprepared and uncertain about their teaching approaches. For example, instructors admitted to not knowing how to adjust strategies effectively, or to feeling overwhelmed by the responsibilities of inclusive instruction.

This reflects earlier findings by Sharma and Sokal (2016), who highlighted that teacher self-efficacy is closely linked to the training they receive. Without sufficient knowledge of special education strategies, instructors may rely on guesswork or avoid necessary accommodations. Muega (2016) similarly noted that inclusive education in the Philippines suffers from a training

gap, where policies are progressive but teacher preparation remains inadequate. The result is a mismatch between expectations and actual classroom practices.

Resource Development and Material Adaptation

Another major challenge involves the preparation of adapted materials. Instructors often needed to create two sets of instructional resources—one for the general student population and another tailored for learners with sensory impairments. This dual planning increased their workload and often required specific skills they had not been trained in.

As McLeskey et al. (2011) stated, adapting instructional materials for students with disabilities requires expertise in both content and accessibility design, a combination that is often lacking. For visually impaired learners, for instance, tactile or auditory alternatives are necessary, but these are not always readily available or easy to prepare. For hearing-impaired learners, visual supplements or sign language support may be needed—resources that instructors were frequently unequipped to provide (UNESCO, 2021; Marschark et al., 2015).

Dela Fuente (2021) similarly noted that Philippine instructors teaching deaf students often struggle to develop or access teaching tools that are inclusive and effective, particularly in higher education settings.

Instructional Strategy Adjustment

Even when willing, many instructors struggled to adjust their teaching strategies to suit students with sensory impairments. The effort to differentiate instruction while maintaining the pace of lessons for a diverse classroom was viewed as taxing. Some teachers reported giving extended time or re-reading questions aloud, but few employed systematic, evidence-based accommodations.

According to Tomlinson (2014), differentiated instruction is a demanding but essential element of inclusive teaching. It requires deep knowledge of learners' individual needs, flexibility in content delivery, and responsiveness to feedback. Florian and Black-Hawkins (2011) emphasized that inclusive pedagogy goes beyond minor accommodations and demands a shift in how teaching is conceptualized and delivered. The findings in this study suggest that while some efforts are made, there remains a gap in executing these strategies confidently and consistently.

Technology and Accessibility Barriers

Challenges in the use of technology and digital accessibility were especially pronounced during the COVID-19 pandemic. Instructors had to rely on online platforms, which were often not equipped to support learners with visual or hearing impairments. For example, materials lacked screen reader compatibility or captioning, and instructors were unaware of assistive software like NVDA (NonVisual Desktop Access).

Burgstahler (2015) observed that although technology can bridge educational gaps, its potential is often underutilized due to a lack of training in accessible digital pedagogy. Kent (2015) also emphasized the necessity of training instructors in creating and delivering digital materials that meet accessibility standards. In the Philippine setting, Toquero (2020) confirmed that educators faced significant accessibility challenges during remote learning, revealing systemic weaknesses in digital inclusivity.

Limited Administrative Support and Institutional Resources

While instructors made personal efforts to be inclusive, several respondents felt unsupported by institutional leadership. They reported insufficient access to professional development, unclear policies, and a lack of collaboration between departments. This reflects

the broader concern raised by Kozleski et al. (2015), who argued that inclusive education cannot be sustained by individual efforts alone—it must be a whole-system approach.

Research by McMaster (2013) and the TIES Center (2020) highlights that when institutions fail to provide dedicated resources, time, and clear expectations, inclusion becomes an unfunded mandate left to the discretion of instructors. In the Philippine context, Mirador and Lluz (2021) found that disability support offices in many universities lack authority and funding, resulting in fragmented support systems.

Galleto and Bureros (2017) also noted that many higher education institutions have not yet fully aligned their operational structures with inclusive education policies, leaving faculty members to navigate inclusion with little institutional guidance.

Conclusion

This study explored the extent of inclusive practices among college instructors at Saint Mary's University (SMU) in teaching learners with sensory impairments, with a focus on their level of training and professional development, the inclusive strategies they employ, and the challenges they encounter.

Findings revealed a significant gap in formal training and professional development, as most instructors lacked seminars, course units, or certifications related to inclusive education. Despite this, instructors demonstrated an expert level of inclusivity in their teaching practices, particularly in the areas of communicative scaffolding and personalized instruction, suggesting a strong commitment to accommodating diverse learners, even in the absence of specialized preparation.

However, qualitative data highlighted critical challenges, including the need for better instructional materials, adapted teaching strategies, and technological accessibility, as well as the effects of limited institutional support. Instructors reported feelings of inadequacy and frustration due to the lack of training, time, and resources required to effectively implement inclusive education.

These findings emphasize the resilience and initiative of instructors, but also point to the urgent need for systemic support. To move from individual efforts to sustainable institutional inclusion, it is necessary to provide targeted professional development, ensure access to assistive technologies, and strengthen collaboration across departments and with families.

Ultimately, inclusive education for learners with sensory impairments is achievable when teachers are equipped, supported, and empowered. Institutions must invest not only in facilities and policies but in the people who carry out inclusive practices—our teachers. This study calls on higher education institutions, including SMU, to bridge the training gap, build inclusive cultures, and make accessibility a shared responsibility.

Recommendations

Saint Mary's University can establish a comprehensive professional development program focused specifically on inclusive education and teaching learners with sensory impairments. This should include regular workshops, seminars, and training sessions that address practical strategies for accommodation and differentiation. It can also create an accessibility resource center that provides instructors with ready access to adapted materials, assistive technologies, and exemplars of inclusive teaching resources to reduce the individual burden of material adaptation. Furthermore, implementing formal mentoring systems pairing experienced instructors who have successfully taught students with sensory impairments with those who have limited experience in this area can be done. Likewise, workload policies can be revised to recognize the additional time requirements of inclusive teaching through appropriate adjustments to teaching loads or supplemental compensation for instructors working with

learners with sensory impairments. Finally, they can develop clear institutional guidelines for accessibility in both physical and digital learning environments, including specific standards for course materials, online resources, and classroom accommodations.

For the instructors, they can pursue formal education and certification in inclusive education and special education through available graduate courses, certificate programs, or continuing education opportunities; establish collaborative professional learning communities focused on sharing best practices and resources for teaching learners with sensory impairments; enhance family engagement strategies through regular communication channels and collaborative planning sessions that involve families in educational decision-making; develop expertise in assistive technologies relevant to students with visual and hearing impairments through self-directed learning and specialized training opportunities; and document successful inclusive practices to contribute to a growing repository of evidence-based strategies that can benefit colleagues and future instructors.

For future research, they can conduct longitudinal studies examining the impact of professional development interventions on instructors' inclusive teaching practices over time; explore the perspectives of students with sensory impairments regarding effective teaching practices and accommodations in higher education settings; investigate models of administrative support that effectively facilitate inclusive education in teacher education institutions; examine the relationship between instructor preparation and student outcomes for learners with sensory impairments in higher education; and develop and validate assessment tools specifically designed to evaluate inclusive practices for students with sensory impairments in higher education contexts.

Beyond institutional improvements, other actionable recommendations include: encouraging the Marian Voices of Inclusion (MVI), the official Marian organization for learners with special educational needs, to expand their training programs to include college instructors, not just pre-service teachers; and partnering with government agencies, NGOs, and disability advocacy groups to provide training, resources, and support for college instructors.

REFERENCES

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, *50*, 179-211.

Al-Azawei, A., Serenelli, F., & Lundqvist, K. (2016). Universal design for learning (UDL): A content analysis of peer reviewed journals from 2012 to 2015. *Journal of the Scholarship of Teaching and Learning, 16*(3), 39–56. https://scholarworks.iu.edu/journals/index.php/josotl/article/view/19295

American Psychological Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). American Psychiatric Publishing.

Avramidis, E., & Norwich, B. (2002). Teachers' attitudes towards integration / inclusion: A review of literature. *European Journal of Special Needs Education*, *17*(2), 129–147. https://doi.org/10.1080/08856250210129056

Booth, T., & Ainscow, M. (2011). *Index for Inclusion: Developing learning and participation in schools* (Revised 2011) https://www.csie.org.uk/resources/current.shtml#schoolsindex2011

Bradshaw, L., & Mundia, L. (2006). Attitudes and concerns about inclusive education: Bruneian inservice and preservice teachers. *International Journal of Special Education, 21*(1), 35–41.

Burgstahler, S. (2015). Universal design of instruction: From principles to practice. In S. Burgstahler (Ed.), *Universal design in higher education: From principles to practice* (2nd ed., pp. 31-64). Harvard Education Press.

Dela Fuente, J. A. (2021). Implementing inclusive education in the Philippines: College teacher experiences with deaf students. *Issues in Educational Research, 31*(1).

Florian, L., & Black-Hawkins, K. (2011). Exploring inclusive pedagogy. *British Educational Research Journal, 37*(5), 813-828. https://doi.org/10.1080/01411926.2010.501096

Forlin, C. (2012). *Future directions for inclusive teacher education: An international perspective*. Routledge.

Galleto, P. G., & Bureros, N. S. (2017). Estimating vulnerability in promoting inclusive education in the Philippines. *American Journal of Educational Research*, *5*(3), 332–337. https://doi.org/10.12691/education-5-3-15

Galleto, P. G., & Bureros, N. S. (2017). Estimating vulnerability in promoting inclusive education in the Philippines. *American Journal of Educational Research*, *5*(3), 332–337. https://doi.org/10.12691/education-5-3-15

Guardino, C., & Antia, S. D. (2012). Modifying the classroom environment to increase engagement and decrease disruption with students who are deaf or hard of hearing. *Journal of Deaf Studies and Deaf Education, 17*(4), 518-533.

Hartman, M. C., Smolen, E. R., and Powell, B. (2023). Curriculum and instruction for deaf and hard of hearing students: Evidence from the past—considerations for the future. *Educ. Sci., 13*(16), 533. https://doi.org/10.3390/educsci13060533

Hehir, T., Grindal, T., Freeman, B., Lamoreau, R., Borquaye, Y., & Burke, S. (2016). *A summary of the evidence on inclusive education*. Abt Associates. https://www.abtassociates.com/sites/default/files/2019-03/A_Summary_of_the_evidence_on_inclusive_education.pdf

Kent, M. (2015). Disability and eLearning: Opportunities and barriers. *Disability Studies Quarterly, 35*(1). https://doi.org/10.18061/dsq.v35i1.3815

Kozleski, E. B., Yu, T., Satter, A. L., Francis, G. L., & Haines, S. J. (2015). A never ending journey: Inclusive education is a principle of practice, not an end game. *Research and Practice for Persons with Severe Disabilities, 40*(3), 211-226. https://doi.org/10.1177/1540796915600717

Mann, G., & Gilmore, L. (2021). Barriers to positive parent-teacher partnerships: the views of parents and teachers in an inclusive education context. *International Journal of Inclusive Education*, *27*(14), 1–13. https://doi.org/10.1080/13603116.2021.1900426

Marschark, M., Shaver, D. M., Nagle, K., & Newman, L. A. (2015). Predicting the academic achievement of deaf and hard-of-hearing students from individual, household, communication, and educational factors. *Exceptional Children, 81*(3), 350-369.

McLeskey, J., & Waldron, N. L. (2011). Educational programs for elementary students with learning disabilities: Can they be both effective and inclusive? *Learning Disabilities Research & Practice, 26*(1), 48-57. https://doi.org/10.1111/j.1540-5826.2010.00324.x

McMaster, C. (2013). Building inclusion from the ground up: A review of whole school re-culturing programmes for sustaining inclusive change. *International Journal of Whole Schooling, 9*(2), 1-24.

Mirador, M. G. I., & Lluz, L. P. P. (2021). Through the walls of inclusion: The higher education institution perspective in the Philippines. *Asian Journal of Education and Social Studies*, 28–34. https://doi.org/10.9734/ajess/2021/v15i230377

Muega, M. A. G. (2016). Inclusive education in the Philippines: Through the eyes of teachers, administrators, and parents of children with special needs. *Social Science Diliman, 12*(1), 5-28. https://journals.upd.edu.ph/index.php/socialsciencediliman/article/view/5230

Sharma, U., & Chow, E. W. S. (2008). The attitudes of Hong Kong primary school principals toward integrated education. *Asia Pacific Education Review, 9*(3), 380– 391.

Sharma, U., & Sokal, L. (2016). Can teachers' self-reported efficacy, concerns, and attitudes toward inclusion scores predict their actual inclusive classroom practices? *Australasian Journal of Special Education*, *40*(1), 21-38. https://doi.org/10.1017/jse.2015.14

Tomlinson, C. (2014). *The differentiated classroom: Responding to the needs of all learners.* ASCD. https://files.ascd.org/staticfiles/ascd/pdf/siteASCD/publications/books/differentiated-classroom2nd-sample-chapters.pdf

Toquero, C. M. D. (2020). Challenges and opportunities for higher education amid the COVID-19 pandemic: The Philippine context. *Pedagogical Research, 5*(4), em0063. https://doi.org/10.29333/pr/7947

UNESCO. (2017). A guide for ensuring inclusion and equity in education. UNESCO. https://unesdoc.unesco.org/ark:/48223/pf0000248254

World Health Organization. (2025, February 26). *Deafness and hearing loss.* World Health Organization. https://www.who.int/news-room/fact-sheets/detail/deafness-and-hearing-loss