

Inclusive Education for Students with Hearing Disabilities: The Trajectory of Public Universities in Malaysia.

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DOI: <https://doi.org/10.47772/IJRISS.2026.100700725>

Received: 28 July 2026; Accepted: 03 August 2026; Published: 11 August 2026

ABSTRACT

The recognition of inclusion as the key to achieving equal rights to education has been developed, improved, and discussed over the past 50 years. Based on the 2016 United Nations Convention on the Rights of Persons with Disabilities (CRPD), inclusive education is one of the vital keys in ensuring the quality of education that can guarantee the presence of a non-discrimination environment. The Malaysian government thus has taken the initiative to cater for the educational needs of the students regardless of their multiple backgrounds and abilities to implement inclusive education. The effort is reflected in the development of the Malaysian Education Blueprint (MEB) 2013–2025, which includes the rights to equal education for marginalized groups, including students with hearing disabilities. With the introduction of the Guidelines of the Disabilities Inclusion Policy in Higher Education Institutions in 2019, students with hearing disabilities are receiving assistance at universities. However, the enrolment of students with hearing disabilities has shown a small percentage from 2018 to 2024, even after the introduction of *Four Special Routes* in 2019 (MOHE, 2023). Within this cohort, students with hearing disabilities have historically received less attention than other disability categories, and the school-to-university transition for this group remains poorly documented in the Malaysian context. This paper thus delves into the current issues revolving around the presence of students with hearing disabilities at universities, including the implementation of policies at higher education institutions, pedagogical applications, as well as the challenges faced. Recommendations for further research are also discussed in this paper.

Keywords: Hearing Disabilities, Persons with Disabilities (PWD), Public Universities, Policies, Students with Disability (SWD)

INTRODUCTION

Based on the United Nations Convention on the Rights of Persons with Disabilities (UN CRPD) in 2016, inclusive education plays a crucial role in safeguarding the excellence of education and fostering a conducive social climate that upholds non-discrimination. The concept of inclusive education, as defined by UNESCO (1990), entails a systematic approach to cater to the diverse needs of all learners. It aims to enhance their engagement in learning, cultures, and communities while minimizing instances of exclusion both in and from educational settings and domains. In 2020, UNICEF has introduced a reviewed domains consisting of; (1) Whole system approach, (2) Curriculum, pedagogy, and assessment, (3) Supported teachers, (4) Learning friendly

environments, (5) Effective transition, (6) Partnership and, (7) Data monitoring. These domains are referred for policies and frameworks globally.

Additionally, four prominent situations in education were introduced by UN in 2016 pertaining students with disabilities' (SWD) condition in educational settings. **Exclusion** occurs when a student is deprived of educational opportunities, either through direct or indirect means. Conversely, **Segregation** arises when students with disabilities are given the opportunity to receive an education. Nevertheless, the educational institution or community offers and constructs distinct settings to segregate them from the non-disabled students. The subsequent scenario, known as **Integration**, entails the incorporation of students with disabilities into mainstream educational institutions, with the expectation that they will independently make the required adaptations to meet the institution's standardized requirements. Inclusion, on the other hand is the ultimate goal where equal access to education is provided regardless of differences in abilities, backgrounds and needs.

As previously stated, inclusion details a comprehensive overhaul that encompasses alterations and adjustments in educational content, instructional techniques, methodologies, organisational structures, and approaches. The objective is to eliminate obstacles and create a learning environment that is fair and inclusive, ensuring that all students within the specified age group have an equal opportunity to participate and receive a learning experience which are aligned with their individual needs and preferences (CRPD, 2016). This is represented by plans involving three significant strategies and action plans namely the Incheon Strategy (2013-2022), The Beijing Declaration and Action Plan (2017) as well as Jakarta Declaration (2023-2032) which can be clearly reflected in the 2030 agenda for Sustainable Development Goals (SDG). The goals are considered as an urgent call for action by all developed and developing countries to improve inclusive education and reduce inequality (Singh, 2022, Amar-Singh et al., 2021).

Social Model of Disability and Universal Design for Learning

The Social Model of Disability understands disability as a consequence of disabling environments and cultures rather than as an outcome of individual impairment alone. In Malaysian higher education, this perspective directs attention to the policies and practices that regulate students' access and participation, including legislation, funding, governance, monitoring, and institutional accountability. Tan, Abdullah and Shuib (2019), argues that disability-related exclusion is closely connected to inaccessible education and the adequacy of institutional support systems.

Universal Design for Learning complements the Social Model by applying the principle of barrier removal to teaching and learning. UDL is organised around three principles: multiple means of engagement, representation, and action and expression (Wells, 2022). These principles provide a basis for designing flexible learning environments that respond to learner diversity. However, UDL should be implemented responsively rather than treated as a universal solution. Research shows that students with disabilities may have different learning requirements and that meeting the needs of some students may create barriers for others. (Griful-Freixenet et al., 2017). In addition, instructional design cannot independently resolve all sensory and social barriers experienced by disabled students in higher education (Creaven, 2024). Together, these frameworks support an analysis of how institutional and instructional changes can promote equitable participation for students with hearing disabilities.

Persons With Hearing Disabilities in Malaysia

Persons with disabilities (PWD) are perceived as a collective comprising individuals with developmental challenges, visual disabilities, hearing disabilities, autism spectrum conditions, behavioural disorders, and learning disabilities (Maciver et al., 2019). In Malaysia, the Persons with Disabilities Act (PWDA) of 2008 states that PWD includes those who have long-term physical, mental, intellectual, or sensory disabilities that could challenge them to fully and effectively participate in society. The Department of Social Welfare Malaysia has consequently introduced seven distinct categories of Persons with Disabilities (PWD) that have been officially recognized and published in accordance with Malaysian law. Out of the seven categories, hearing disability has the second smallest figure recorded by the Department of Social Welfare in Malaysia, with a total of 48,382

individuals. It represents 6.22% of the overall count of 777,494 PWD who have been officially registered as of May 2025. The registered number however does not accurately reflect the true extent of the PWD community, as registration is entirely optional (Azmi et al., 2021).

Khairul Farhah Khairudin (2018) mentioned that the relatively small population of individuals with hearing disabilities has led to a lack of focus and attention in comparison to other types of disabilities. Hearing disabilities thus usually perceived as the ‘invisible’ disability by the society. There are four (4) distinct sub-categories by which an individual may be classified as having a hearing disability. The classifications encompass bilateral hearing loss, single-sided deafness (SSD), permanent ear disability/ear-related syndrome/hearing-related syndrome, and others (Department of Social Welfare, 2024).

Based on the explanation provided by the Department of Social Welfare Malaysia, there are five (5) categories of hearing level as represented in Table 1:

Table 1: Category of Hearing Level

Category	Hearing Level	Description
Normal	<20 dB	Able to hear all sound
Mild	21 – 40 dB	Able to hear low sound and speech in a quiet environment
Moderate	41 – 70 dB	Having difficulties to hear sound and speech in a quiet environment
Severe	71 – 90 dB	Unable to hear even in a quiet environment. Able to hear loud sound. Having problems to communicate with others.
Profound	91 > dB	Unable to hear loud sound. Having problems to communicate with others

For people with hearing disabilities, the designated language for communication within the deaf community, as specified in the PWD Act of 2008, is known as *Bahasa Isyarat Malaysia* (BIM) or Malaysian Sign Language (MSL). Malaysian students with profound hearing disabilities frequently rely on sign language as a means of communication. MSL can be regarded as the second language for individuals, following *Bahasa Melayu*, with English classified as their third language (Mat Nasir et al., 2021). Shaari (2019) highlights that *Kod Tangan Bahasa Melayu* (KTBM) and *Kod Tangan Bahasa Inggeris* (KTBI) are integral components of the formal education curriculum for children with hearing disabilities at school. Bell et al. (2015) stated that people with hearing disabilities have better communication in MSL daily as it has become a daily culture and constant communication. Chong and Mohd Hussain (2022) later concur that individuals with hearing disabilities can achieve comprehensive inclusivity into the wider society, on the condition that MSL is employed to allow effective communication. Regarding students with varying degrees of hearing disabilities, communication typically takes place through spoken language, encompassing both *Bahasa Melayu* and English for people with hearing disabilities in Malaysia. This is later adopted in the special curriculum plan for students with hearing disabilities in Malaysia.

Students With Hearing Disabilities and Policies at Universities

Based on Article 24 of the United Nations' policy on Persons with Disabilities (PWD), it is imperative that inclusive education encompasses the *A Whole Systems* approach, necessitating the ministries of education to make modifications to their institutional policies and practices. Consequently, a commendable endeavour was implemented with the introduction of the Malaysian Education Blueprint (MEB) 2013-2025, which prominently emphasizes the entitlements of underprivileged factions, including students with hearing disabilities (Rosli et al., 2022; Chin, 2020). In addition to providing education for the students at both primary and secondary levels, MEB has emerged as a catalyst for enhancing opportunities and ensuring high-quality education for students with hearing disabilities at the university level.

Several studies conducted in Malaysia have highlighted the challenges faced by students with disabilities in adapting to existing higher-education systems. For example, Alias et al., Zainal and Low, Rosli et al., and Rafek

et al. (2025b) have examined issues related to institutional accessibility, academic support, and inclusive educational practices. Nevertheless, the enrolment trends of students with hearing disabilities across Malaysia's 20 public universities between 2018 and 2024 remain an important area of concern. According to statistics from the Ministry of Higher Education, students with hearing disabilities accounted for only 3.90% of the total enrolment of students with disabilities in 2024. This limited representation highlights the need for closer examination of the factors influencing the participation, retention, and educational experiences of students with hearing disabilities in Malaysian higher education.

Table 2: Number of SWD enrolment at public universities in Malaysia (2018-2024)

Year	Students with Disabilities Enrolment	Students with Hearing Disabilities
2018	1874	89
2019	1234	85
2020	997	76
2021	847	62
2022	2187	64
2023	1981	73
2024	2306	90

(MOHE, 2025)

The environmental factor which includes academic and social fields hugely affected the transition from school to university level (Whitaker, 2018). In 2012, the Ministry of Higher Education (MOHE) issued a directive about the implementation of an action plan aimed at enhancing the quality of teaching and learning for students with disabilities across all public universities in Malaysia. Consequently, the *Guidelines for the Implementation of the Inclusive Policy for Persons with Disabilities in Higher Education Institutions* has only been introduced after seven years in 2019, as a proactive measure to enhance the facilities and support system of the institution. This measure is implemented to guarantee that no students with disabilities would be excluded as a result of inadequate provisions. Moreover, the incorporation of the *Four Special Routes* is in accordance with the 3rd Strategic Core of the National Plan of Action for Persons with Disabilities 2016-2022 which is aligned with the Incheon Strategy (2013-2022) and UNICEF's domains for inclusive education. This initiative has the potential to enhance the educational opportunities and lifelong learning prospects for students with hearing disabilities, as supported by the research conducted by Rosli et al. (2022) and Chin (2020). Zainal and Low (2021) have indicated that the implementation of the guideline has effectively paved the way for the establishment of a Disabilities Service Unit across 20 public universities in Malaysia, commencing from the 2019/2020 student admission session. The aim is to eradicate segregation and facilitate the empowerment of students with disabilities through education (MOHE, 2019). It is noteworthy that the advent of strategies, agendas, and policy aims to steer Malaysia towards wholeheartedly embracing the notion of educational equality.

The objective of the guideline for *Guidelines for the Implementation of the Inclusive Policy for Persons with Disabilities in Higher Education Institutions* (2019) is to serve as a reference for universities to develop policies that include:

1. Developing infrastructure which is students with disabilities (SWD) friendly
2. Preparing a conducive teaching and learning environment for all types of disabilities (Universal Design)
3. Creating an environment based on love, respect, and happiness
4. Preparing a conducive living environment for all types of disabilities
5. Creating a caring community culture towards SWD
6. Ensuring inclusive involvement of SWD in activities/programmes in/outside campus
7. Preparing career development programmes for SWD

The successful implementation of the policy requires the incorporation of nine essential components. These components encompass strategic planning, the establishment of a SWD services unit, and the consideration of various settings, such as the physical, intellectual, and social aspects (MOHE, 2019)

Pedagogical Application At University

The learning challenges experienced by students with hearing disabilities have prompted researchers to identify a range of instructional and institutional practices that support their academic participation and psychological wellbeing. Within the Malaysian context, these practices are consistent with the *Guidelines for the Implementation of the Inclusive Policy for Persons with Disabilities in Higher Education Institutions* (MOHE, 2019), which requires higher education institutions to systematically implement inclusive educational practices. The effective support for hearing-disabled students involves shared responsibilities between lecturers, students, and higher education institutions.

At the instructional level, the literature emphasises the importance of multimodal teaching practices for improving the accessibility of learning for students with hearing disabilities. In the Malaysian higher-education context, the incorporation of Universal Design and UDL - an inclusive framework that promotes flexible goals, methods, materials, and assessments to accommodate diverse learner needs- has been identified as an important strategy for increasing the participation of students with disabilities. (Yusof et al., 2020, CAST, 2018). Combining spoken explanations with written keywords, captions, visual materials, and lecture handouts can provide students with alternative means of accessing and reviewing instructional content. Research has also identified the importance of appropriate instructional materials, suitable visual resources, and post-class learning materials in addressing communication and content-delivery barriers faced by deaf students (Samian et al., 2025). Multimedia-based learning strategies may further help reduce communication barriers when they are designed according to students' learning styles and implemented alongside meaningful interaction and engagement (Ratriyana & Nuswantoro, 2022). Beyond instructional delivery, lecturers play an important role in creating inclusive learning environments by recognising students' accessibility needs, communicating with students and interpreters, and making appropriate adjustments to classroom practices (Jaafar & Mee, 2010; Rafek et al., 2025a), which are consistent with Universal Design for Learning.

From the perspectives of students with hearing disabilities, dependency on interpreters, transcribers, and technological accommodations are recorded, as well as frustration when these forms of support are inadequate or inconsistently provided (Tannenbaum-Baruchi et al., 2025). This highlights the need for accessibility policies to be implemented consistently at the classroom level. Lecturer advocacy and awareness can contribute to this process by helping students communicate their needs and by ensuring that appropriate instructional adjustments are applied as suggested by Jambor (2004). Research on self-advocacy among Deaf and hard-of-hearing students has emphasised the importance of students and lecturers understanding accessibility needs and the teaching practices required to strengthen academic access (Bell et al., 2016). Furthermore, supportive environments may encourage students to disclose their hearing disabilities and communicate their accommodation needs. Bell et al. similarly argued that students' self-perceptions and perceptions of how others view them influence their decisions to disclose hearing impairment and seek reasonable accommodation. Avoiding disclosure or failing to request appropriate support may limit students' participation in academic life and their access to learning opportunities. (Bell et al., 2016)

The literature also identifies several self-management strategies that may support the academic participation and self-esteem of students with hearing disabilities. Academic preparation, including reviewing lecture materials before class and developing subject-specific vocabulary, may help students process instructional content more effectively. Research has shown that scaffolding through main points, key concepts, and vocabulary can support Deaf and hard-of-hearing students' learning and metacognitive awareness. (Borgna et al., 2010) Classroom-engagement strategies, such as selecting seating positions that optimise visual access to lecturers and interpreters and requesting written learning objectives, may further improve access to information. These strategies are particularly important because poor classroom acoustics, limited speech intelligibility, and unsuitable seating arrangements can impede students' participation during lectures. In addition, identification with the deaf community may contribute to students' self-esteem. Jambor (2004) found that identification with the deaf community significantly contributed to positive self-esteem among Deaf students at a university.

DISCUSSION

The social model of disability highlights that disability issues emerge from the disabling environment and cultures, rather than those with disabilities themselves (Barnes, 2007). In Malaysia, the Persons with Disabilities Act 2008 serves as protection of the people with disabilities whereby SWD cannot be excluded from the chance of receiving education from public/private higher institutions. PWDA 2008 does provide requirement to include students with disabilities with reasonable accommodations/adjustments but unable to clarify on what those entail especially the higher education institutions' requirements (Othman & Rahmat, 2020; Tan, Abdullah & Shuib, 2019).

Concerns are raised over the insufficiency of legislation in safeguarding the educational entitlements of students with disabilities. Othman et al. (2022) and Johari and Abdul Hamid (2021) have pointed out the shortcomings in the PWD Act 2008, resulting in inadequate coverage of protection for individuals with disabilities (PWD) in Malaysia. As the *parent* for disability law and legislation, PWD Act 2008 unfortunately does not have any punitive actions for non-compliance acts thus lacking of enforcement provisions. It leaves flexibility in implementation, execution and application to all the plans and policies of disabilities including for students with disabilities in Malaysian universities. This in return has become an ambiguous issue with no further reference on the limits of what the universities could or should provide to the students with hearing disabilities. The introduction of *Guidelines for the Implementation of the Inclusive Policy for Persons with Disabilities in Higher Education Institutions* reflects such matter. Consequently, if the policy is not implemented, the notion of penalty towards the responsible parties remains vague. Though disability policy/unit is introduced in public universities from 2019, it acts as a mere guideline.

The multiple interpretation of SWD's rights may contribute to discrepancies in policy implementation, particularly due to the perplexing and confusing legislation on how the policy should be executed at higher educational institutions. As a result, universities are unable to provide impending supports such as impairment-friendly equipment, assistive technology and facilities to the targeted students with hearing disabilities. Financial constraints within Malaysian higher education management (Yusof et al., 2020; Zaki & Ismail, 2021; Tan, Abdullah & Shuib, 2019) continue to restrict the complete execution of inclusive education policies.

There is a vast difference in terms of supports provided for students with hearing disabilities between school and university level (Rafek et al., 2025b). Students with disabilities at schools are assisted by several programmes namely the Special Education Programme, Special Education Integration Programme, and Inclusive Education Programme. These programmes have utmost focus on five elements namely the students' criteria, students' placement, teacher, teaching and learning, and assessments with the ample allocated budget by the government. The contrast of adjustment between secondary and tertiary levels may lead to false positive expectations when students with hearing disabilities are expecting the same accommodations similar to school. With less funding for the disability's equipment (Tan, Abdullah & Shuib, 2019), students with hearing disabilities thus are in an inconducive environment compared to school. The transition from school to universities creates discrepancy in experience, expectation and assistance for students with hearing disabilities in Malaysia. This could possibly factor the low number of enrolments for students with hearing disabilities at universities as the aforementioned statistics.

It is also plausible to assert that the fundamental principles of inclusive education have not been comprehensively communicated, as evidenced by the lack of awareness among faculty members. Rafek et al. (2025a), Yusof et al. (2020) and Azizi et al. (2018) have long echoed the same conclusion as staff and academic practitioners who are found to have less tolerance and awareness, thus resulting the deficiency in the provision of necessary support for ensuring equal educational opportunities for university students with hearing disabilities. It seems far from the lecturers' knowledge that for students with hearing disabilities, even the sounds emitted from the classroom's air conditioner are considered as a trial let alone the necessary adjustment needed in teaching involving matters of listening and speaking abilities. As most faculty members are not fully equipped with the understanding of the disability policy (Rosli et al., 2022), most public universities have yet to make it compulsory for them to undergo specific training to cater for the needs of SWD (Rafek et al., 2025a). This indirectly goes back to the execution of the policy. Additionally, the disability policy execution is equally contingent upon the lecturer's

discretion and assessment. Findings by Gow et al. (2020) revealed the extent to which individuals are granted accommodations is depending upon the personal inclinations of the lecturer, despite the presence of an established policy. It creates an impasse on which one is the real responsible party to monitor and execute the disability policies at universities.

As Malaysian universities shift towards technology-integrated teaching and learning, the lack of tailored frameworks and clear guidelines presents distinct challenges for students with hearing disabilities. This digital transition was acutely tested during the COVID-19 pandemic, when higher education shifted entirely online. In school-level special education, Husin et al. (2023) highlighted that students with hearing disabilities navigated Home-based Teaching and Learning (*Pengajaran dan Pembelajaran di Rumah*, PdPR) through specific pedagogical techniques based on the Visual, Auditory, and Kinesthetic (VAK) model, as structured by the Ministry of Education (MOE). At the tertiary level, however, Krishnan et al. (2020) revealed that university students faced severe hurdles during online classes, including hardware issues with hearing assistive devices and compromised lesson comprehension. This contrast underlines a critical gap: university educators often lack the training required to implement reasonable adjustments and academic accommodations for hearing disabled students, having to compromise the positive expectation that these students had when entering universities.

These contrasting scenarios underscore the urgent need for public universities to implement structured policies and faculty training, particularly to accommodate students with hearing disabilities during digital instruction. Currently, public universities rely heavily on blended learning modalities via platforms such as Google Meet, Microsoft Teams, and Zoom. However, these environments present substantial barriers for students with hearing disabilities—most notably by hindering lip-reading techniques and hearing devices interference. Given the lack of standardized academic accommodations, these students are frequently forced to navigate a mainstream system unequipped for their needs, compelling them to independently negotiate their limitations (Rafek et al., 2025b). Ultimately, the principle of reasonable adjustment has been continually compromised by a broader lack of institutional awareness and the inconsistent enforcement of disability inclusion policies.

Based on the instances, it can be inferred that these situations also exemplify different stages in the Malaysian public universities' implementation of inclusive education. It has emerged as a standard by which to gauge a country's success in integrating the notion of inclusive education into its educational framework (Lawrence et al., 2020). However, it is worth noting that numerous developing nations like Malaysia continue to have challenges in transitioning from the Integration phase to the Inclusion phase, mostly as a result of various hurdles such as legal, social, cultural, and economic factors (Singh, 2022).

CONCLUSION AND RECOMMENDATION

The integration of reasonable accommodations and adjustments demonstrates a growing institutional recognition of the need to adapt educational environments for students with hearing disabilities. While fulfilling these comprehensive requirements is making a slow but steady progress, numerous researchers highlight persistent resource shortages, unfavourable conditions, and varying levels of institutional readiness both before and after the rollout of inclusive education policies. Crucially, addressing the misconceptions surrounding students with hearing disabilities must begin at both policies and classroom practices levels. Unrealistic expectations that deaf students should immediately perform on par with their non-disabled peers upon admission must be dismantled. Therefore, Disability Services Units (DSUs) across public universities must actively collaborate with academic faculties to foster awareness regarding these challenges. All stakeholders must strive to offer equal opportunity without demanding equal ability; otherwise, Malaysian higher education risks settling for passive *Integration* rather than achieving true *Inclusion*.

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