

Use of Malaysian Sign Language for Special Education Teachers in Teaching Deaf Students

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Abstract

This study aims to assess the level of knowledge and skills of Special Education teachers in the use of Malaysian Sign Language (BIM) for the teaching of deaf students in Malaysia. This quantitative study used a descriptive survey design involving 59 Special Education teachers from schools in Selangor, Kuala Lumpur, Putrajaya, Negeri Sembilan, Melaka, and Johor. Data is collected through a questionnaire that consists of three sections: profile information, knowledge, and skills. The analysis shows that the knowledge level of Special Education teachers is at a moderately high level (mean = 3.93), while the skill level in the use of BIM is also moderately high (mean = 3.49). Special Education teachers have a strong knowledge of the importance of sign language; however it requires an increase in understanding of BIM and awareness of its use in schools. Proficiency in the use of BIM shows variation with recommendations to improve certain aspects such as the way of communication in BIM. This study recommends that Special Education teachers undergo BIM translation courses and skills assessment tests before teaching deaf students. In addition, the introduction of the Bilingualism-Bicultural (BiBi) education model and the recognition of BIM as the main language of the deaf in Malaysia are recommended to improve the quality of teaching and learning.

Keywords: Bim, Special Education Teachers, Teaching, Deaf Students.

Introduction

The use of sign language in the teaching process can increase the interest of deaf students in academics, where it stimulates creativity, arouses curiosity, and gives them greater motivation to continue learning. This is because sign language facilitates communication for deaf students and gives them the opportunity to voice their opinions, feelings and ideas (Syar Meeze et al., 2017). As such, deaf people should be given the right to education through sign language on a par basis based on the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) in 2010. In this era of globalization, the United Nations (UN) declared International Sign Language Day on September 23, 2018. The determination of September 23 is based on the date of the World Federation of the Deaf (WFD) which was established on

September 23, 1951. International Sign Language Day aims to raise awareness of how important sign language is to protect the human rights of deaf people.

In Malaysia, the authority of Special Education teachers who teach deaf students is often discussed by leaders in various meetings, seminars and conferences organised by deaf associations, private bodies, ministries, and institutions of higher learning (Amir Hamidi, 2006). This is because some Special Education teachers believe that sign language is hand signals that have no language structure, resemble rojak language and convey limited information orally. This is because currently Malaysian Sign Language still does not have a status in Special Education, where Malaysian Sign Language (BIM) is not the medium of instruction in schools for deaf students and has not been made a subject that can be learned officially such as Tamil, Chinese, Kadazan and Dusun is a minority language that has been made a subject (Abdullah, 2019).

Malaysian Sign Language (BIM) was first introduced in 1996 by the Federation of the Deaf (MFD) when developing the BIM development project (Lim, 2006) because deaf people from abroad expressed doubts about the existence of sign language in the Malaysian deaf community and thought they used American Sign Language. Until finally the Malaysian parliament passed the Persons with Disabilities (OKU) Act 2008 on 17 November 2007. In this act, BIM is recorded as the official language for the deaf in Malaysia in daily communication, government and private sector affairs and even in the field of education (Abdullah, 2019).

Teaching involves the exchange of information between two parties involved in Special Education activities. Each activity that occurs in Special Education has three stages, namely the teaching process, planning in teaching and teaching behaviour. All three decisions involved teachers, not curriculum planners. Therefore, Special Education teachers need to be proficient in BIM in order to be able to convey information to deaf students in effective teaching activities.

This study aims to assess the level of knowledge and skills of Special Education teachers on the use of BIM for deaf students. Thus, Special Education teachers can prepare themselves to improve BIM skills in line with the needs of deaf students in the teaching process in schools. The results of this study can be a source of reference and guidance for Special Education schools, State Education Departments, and the Ministry of Education Malaysia to understand the use of BIM. In addition, this study can also assist certain parties in designing a specific sign language curriculum.

Problem Statement

Special Education teachers should think of various teaching methods to ensure that deaf students always enjoy the learning process using better quality sign language. This is reinforced by the report of the Malaysian Education Development Plan 2013-2025 (MOE, 2013) which states that the involvement of students in learning activities can be achieved through active learning methods and not in a passive learning environment (Zulia et al., 2024). Deaf students feel less interested in learning something because they do not understand what is being taught if there is no use of sign language (Meeze et al., 2014).

However, there is a problematic issue regarding the use of sign language by Special Education teachers in teaching deaf students. The first issue is that most Special Education teachers always misinterpret the use of the Malay Language Hand Code (KTBM) which should be used among deaf students. This has caused confusion about the mixing of sign language communication of deaf students when using both KTBM and BIM because they have been exposed to KTBM techniques since they were in primary school. This opinion is reinforced through a study by (Lee, 2016). The delivery and communication process by Special Education teachers will be disrupted because they do not understand the sign language movements used. This can lead to misunderstandings of the concepts taught in the subject. In addition, Special Education teachers consider that BIM and KTBM are the same thing (Abdullah & Che Rabiah, 2009).

The second issue involves that most Special Education teachers are not proficient in using BIM in conveying information. As a result, deaf pupils have difficulty understanding the information material taught by Special Education teachers in teaching. This statement is reinforced by Syar Meeze et al (2017), which showed that the majority of sign language proficiency of Special Education teachers is still at a low or limited level. In addition, the lack of adequate training in using Malaysian sign language is one of the factors that causes the weakness of teachers' sign language proficiency (Huzairi, 2017).

The third issue involves the problem of mastering two languages at the same time, namely sign language and Malay as evidenced by the study of (Rahim, 2010). The use of KTBM has made it difficult for deaf students to understand the sentences conveyed by Special Education teachers in the teaching of sign language. Each suffix in KTBM has its own code and is separated from the root word (Lee, 2016) as per the Malay pronunciation, but does not show body movements and facial expressions using sign language. The shapes and symbols of the hands that appear to convey meaning show the uniqueness of sign language (Meeze & Mohd Hanafi, 2018). Therefore, deaf students are still confused about the function of using KTBM and BIM. However, there is still a lack of emphasis on the implementation of teaching using BIM in all subjects in all Special Education schools. Therefore, greater emphasis is needed in studying the differences between KTBM and BIM by Special Education teachers who teach deaf students in schools.

Literature Review

There are past studies on teaching, especially in the field of sign language conducted by researchers, which will be organized into two categories, namely overseas studies and local studies.

The Use of Sign Language in Teaching Abroad

American Sign Language or ASL is one of the fastest-growing languages in demand in the United States. In American schools, ASL is now recognized as the official option for learning a foreign language. Studies show that ASL learning helps children in their cognitive development throughout their lives. Therefore, children can achieve significant cognitive progress if ASL is taught up to the secondary level. Claire (2023) found that American sign language is a non-verbal way of communicating through both hand gestures and facial expressions. It is a visual language that uses spatial awareness to help speakers and audiences understand what is being said. Sign language also increases students' excitement and

motivation and helps them listen, see, and concentrate. Therefore, special Education teachers should strive to maintain sign language practices in teaching so that students' achievement is prioritized while conducting classes.

On the other hand, in Saudi Arabia, teachers need to perform various roles in the classroom with the help of an effective teaching approach. Primarily, using modern techniques that focus on how communication takes place. In this regard, it is important to have effective communication between teachers and their students in the classroom. This can increase the comprehension capacity of pupils in the classroom and help them feel more comfortable asking their teachers questions. Sign language is an important communication channel between teachers and students because it contributes to obtaining feedback and the linguistic and cognitive development of deaf students. Researcher Omar (2022), found that sign language is a spoken and similar language that involves four different angles: speaking, writing, reading and listening. For instance, American Sign Language literacy includes various forms such as ABC stories, number stories, classifier stories, hand form stories, narratives, and American Sign Language poetry. In fact, to develop students' ability to read, teachers need to use facial expressions correctly because sign language is related to the upper body, arms, head, and face and also integrating sign language all these parts must work together. Therefore, teachers should observe, interpret and use the facial components correctly. This is recommended to be used to improve any teachers' sign language proficiency in teaching and learning.

Sign language in Australia has been compulsorily integrated into the school curriculum of either primary school or high school. This will make sign language education accessible to deaf and deaf or hard-of-hearing pupils. Teaching sign language has many cognitive and social benefits because it will improve communication skills and provide the cognitive advantages that come from bilingualism. Researcher Hilary et al (2019), found that gestures and visual communication become an important part of communication with gestures together representing an important visual modality that accompanies verbal output. Subsequently language provides other modalities beyond the verbal to express oneself. The vast majority of communication is non-verbal, and the use of sign language integrates, formalizes, and expresses this non-verbal communication in an effective way. The relationship is strong between sign language and emotional expression (Elliott & Jacobs, 2013). Therefore, special education teachers need to know the principles of sign language, communication and preparation to communicate with deaf students to facilitate and teach deaf students more effectively. The diversity of sign language approaches in each country in the education system ultimately leads to the same goal, which is to facilitate communication between deaf students and Special Education Teachers.

Sign Language in Teaching and Learning in Malaysia

Following the discussion on sign language in various countries, the Malaysian education system has also taken the initiative to empower the use of this language through the PPPM 2013-2025 target. Anthony & Rosila (2021) found that to enable students to understand the lessons being taught, teachers need to use various methods such as speech, sign language, and visual aids. Unlike typical learners who are equipped with a common language, deaf learners have almost no language due to limited exposure to sign language or speech. This is because the knowledge gained by deaf students is a slow process. Meanwhile,

communication is very important as the first step to inculcate good thinking in deaf children. A good communication system using sign language that is simple and easy to understand because the intelligence of deaf children is lower than that of typical children. (Abdul Rahim, 2010). Special Education teachers are encouraged to develop effective communication strategies in teaching and learning using Malaysian Sign Language (BIM) exclusively. However, facial expressions and body movements can also help deaf students understand the information or things that the Special Education teacher wants to convey. The findings of these studies show that it is appropriate for sign language studies in teaching deaf students more widely so that the rights and needs of deaf students in learning can be further improved in the quality of equal educational rights in the future.

Methodology

This study uses a quantitative method approach with a descriptive survey study design. The target of the study consisted of Special Education teachers in Special Education schools and the Integrated Special Education Programme (PPKI) in the states of Selangor, Kuala Lumpur, Putrajaya, Negeri Sembilan, Melaka and Johor as the location of the study. Meanwhile, the population for this study involved 70 Special Education teachers. The determination of the sample size consisting of 59 Special Education teachers as respondents was based on the sample table of Kerjcie and (Morgan, 1970). The type of sampling technique used is a purposeful sampling technique.

This research instrument used an expert verification form for two content validities and the validity of the questionnaire form as well as a questionnaire form for special education teachers who teach deaf students to collect data. Questionnaires are in the form of *google forms* and are distributed online because they are convenient and time-saving and do not interfere with respondents in carrying out their daily tasks. The questionnaire was prepared using three parts, namely part A (profile information), part B (knowledge of Special Education teachers) and part C (skills of Special Education teachers). Each item will be tested using the Likert scale. 5 points namely 1: strongly disagree (SD), 2: disagree (DS), 3: uncertain (UC), 4: agree (A) and 5: strongly agree (SA).

The validity of the instrument must be determined before the questionnaire is distributed. Therefore, legality is important to ensure that the items that should be available are provided accurately (Mohamad Akbar & Illyas, 2023). The content validity form and questionnaire validity form are submitted to three experts to review the questionnaire items and provide feedback on any confusion of the questionnaire items. Three experts with more than 10 years of experience in the field of Special Education (hearing impairment) and Malay Language have confirmed the validity of this survey questionnaire item. Subsequently, this study has obtained approval from the Education Policy Planning and Research Division and the Special Education Division of the Ministry of Education Malaysia to enable a pilot and field study to be carried out on the teaching of Special Education teachers to deaf students using sign language. In detail, the pilot study involved 59 teachers teaching deaf students in Selangor, the Federal Territories (Kuala Lumpur and Putrajaya), Negeri Sembilan, Melaka and Johor. The reliability of the questionnaire instrument was analyzed using Cronbach's Alpha coefficient with the help of Statistical Package for the Social Sciences (SPSS) version 27 software. Table 1 displays the constructs and items that have been used by the researcher.

Table 1

Cronbach's Alpha coefficient value

Construct	Number of Items	Cronbach Alpha
1. Knowledge of Special Education Teachers	11	0.773
2. Skills of Special Education Teachers	9	0.731'

Based on Table 1, the knowledge construct of Special Education teachers consisting of 11 items recorded a reliability value of 0.773. In addition, the construct of the skill level of Special Education teachers, which includes 9 items in the questionnaire, shows a reliability value of 0.731. This suggests that both constructs in the study instrument are acceptable. According to Mohd Salleh and Zaidatun (2003), the value of Cronbach's alpha coefficient between 0.6 and 1.0 is considered acceptable.

In addition, the descriptive analysis in the study involves the mean, percentage deviation, and mean. According to Azmi et al (2009), and Maimun Aqsha et al (2017), High Level, Medium High, Medium Low interpreted based on the collected mean values. If the mean value is between 4.01 and 5.00, the level is considered high, between 3.01 to 4.00 medium high level, between 2.01 to 3.00 medium low level, while a mean value between 1.00 to 2.00 is considered a low level.

Findings and Discussion

The researcher discussed the analysis of the results of this study which involved the analysis of profile information using a sample of 59 respondents who taught deaf students. The data are analyzed based on frequency and percentage and the results are displayed in Table 2.

Based on Table 2, the survey respondents consisted of 41 girls with a percentage of 69.5% and 18 people were 30.5% male teachers. The frequency of respondents with the highest level of education showed that a total of 53 people had a Bachelor's degree, which is 89.8% of the total. Meanwhile, only 4 people, or 6.8%, hold Master's Degrees, while the same number, namely 2 people (3.4%), hold Doctoral Degrees and Diplomas. Most of the Special Education teachers have a teaching experience of ten years or more with a frequency of 38 respondents with 64.4%. Furthermore, the period of teaching experience of one to five years, the frequency was 13 respondents with 22.0%. Meanwhile, for a period of five to ten years, the frequency was 8 respondents with 13.6%.

Furthermore, most of the respondents (43 people, 72.9%) have good proficiency in using both KTBM and BIM. This compares to 15 respondents, 25.4% who only use KTBM and only 1 respondent, 1.7% who use BIM. BIM skills among respondents showed that 36 people 61.0% had a moderate level of proficiency, 17 respondents 28.8% had less proficient skills, and 6 people 10.2% had very proficient mastery in BIM.

Tables 3 and 4 summarize the objectives of the study that assess the level of knowledge and skills of Special Education teachers in the use of sign language. The results report is presented through mean, standard deviation, and interpretation.

Table 2

Respondent Profile Information

Profile	Categories of Respondents	Frequency	Percentage %
Gender	Female	41	69.5
	Men	18	30.5
Level of Education	Diploma	1	1.7
	Bachelor	53	89.8
	Master's Degree	4	6.8
	Doctoral Degree	1	1.7
Duration of Teaching Experience	1 – 5 years	13	22.0
	5- 10 years	8	13.6
	10 years and above	38	64.4
Sign Language Mastery	KTBM and BIM	43	72.9
	KTBM	15	25.4
	BIM	1	1.7
Level of Mastery in BIM	Less Skilled	17	28.8
	Simple Advanced	36	61.0
	Very Proficient	6	10.2

Based on Table 3, the analysis found that the level of knowledge of Special Education teachers in the use of sign language was at a moderately high level with an overall mean value of 3.93 and a standard deviation of 0.480. However, five items in this construct recorded high mean values, namely "I know BIM is the sign language of the deaf community in Malaysia", "I know that KTBM is a hand code that follows the grammar of Malay", "I need KTBM in school", and "global communication is a philosophy that Special Education teachers should uphold".

Overall, this shows that special education teachers have a strong knowledge of the importance of sign language in Malaysia's deaf community, the use of KTBM and the Whole Communication Philosophy in special education. However, knowledge can still be improved in other areas such as understanding BIM grammar and awareness of the importance of using BIM throughout the school. This is supported by Abdul Rahim (2010). Therefore, it is important for Special Education teachers in this field to use new and updated learning approaches to ensure that their knowledge is always tailored to the needs of their students.

Table 3

Level of Knowledge of Special Education Teachers in the Use of Sign Language

No.	Items	N	Frequency %				
			SD	DS	UC	A	SA
1.	BIM is the official language of the deaf community as contained in the OKU Act 2008.	59	0 (0%)	0 (0%)	20 (33.9%)	24 (40.7%)	15 (25.4%)
2.	I have knowledge of the Whole Communication Philosophy.	59	1 (1.7%)	2 (3.4%)	20 (33.9%)	29 (49.2%)	7 (11.9%)
3.	I know that BIM has been adopted throughout Malaysian schools.	59	1 (1.7%)	9 (15.3%)	13 (22.0%)	28 (47.5%)	8 (13.6%)
4.	I know BIM is the sign language of the deaf community in Malaysia.	59	0 (0%)	1 (1.7%)	4 (6.8%)	35 (59.3%)	19 (32.2%)
5.	I know BIM has its own grammar.	59	2 (3.4%)	5 (8.5%)	15 (25.4%)	25 (42.4%)	12 (20.3%)
6.	I know that KTBM is not a language.	59	8 (13.6%)	10 (16.9%)	13 (22.0%)	16 (27.1%)	12 (20.3%)
7.	I know that KTBM is a hand code that follows the grammar of the Malay language.	59	0 (0%)	0 (0%)	5 (8.5%)	27 (45.8%)	27 (45.8%)
8.	I need BIM in school.	59	3 (5.1%)	5 (8.5%)	10 (16.9%)	32 (54.2%)	9 (15.3%)
9.	I need KTBM at school.	59	0 (0%)	0 (0%)	5 (8.5%)	34 (57.6%)	20 (33.9%)
10.	Whole communication is a philosophy that Special Education teachers need to uphold.	59	0 (0%)	1 (1.7%)	3 (5.1%)	27 (45.8%)	28 (47.5%)
Overall Min		3.93					
Standard Deviation		0.480					
Interpretation Stage		Medium Height					

Meanwhile, based on Table 4, an analysis of the skill level of Special Education teachers in the use of sign language is displayed. All the same interpretation items are simply high. The overall mean is 3.49 and the standard deviation is 0.531. This shows that overall, Special Education teachers give a positive assessment of their skills in the use of BIM, however there is variation in their perception of each item. Therefore, recommendations can be given to give more emphasis to some aspects that may require improvement such as the use of BIM dictionaries and exposure to further education in BIM. This is also supported by Lee (2016).

Table 4

Skill Level of Special Education Teachers in the Use of Sign Language

No.	Items	N	Frequency (%)				
			SD	DS	UC	A	SA
1.	I am proficient in using BIM.	59	4 (6.8%)	15 (25.4%)	17 (28.8%)	18 30.5%	5 (8.5%)
2.	I am confident that I can teach deaf students using BIM.	59	2 (3.4%)	8 (13.6%)	17 (28.8%)	27 (45.8%)	5 (8.5%)
3.	The consistent use of BIM with teaching aids (BBM) can help me in teaching.	59	0 (0%)	7 (11.9%)	13 (22.0%)	32 (54.2%)	7 (11.9%)
4.	I attended a sign language course to improve my sign language mastery.	59	1 (1.7%)	8 (13.6%)	21 (35.6%)	22 (37.3%)	7 (11.9%)
5.	Deaf students use KTBM to communicate with teachers.	59	0 (0%)	5 (8.5%)	12 (20.8%)	33 (55.9%)	9 (15.3%)
6.	Deaf students use BIM to communicate with teachers.	59	0 (0%)	3 (5.1%)	12 (20.3%)	41 (69.5%)	3 (5.1%)
7.	I always bring the KTBM dictionary to class for reference.	59	3 (5.1%)	6 (10.2%)	13 (22.0%)	28 (47.5%)	9 (15.3%)
8.	I always bring a BIM dictionary to class for reference.	59	8 (13.6%)	8 (13.6%)	20 (33.9%)	21 (35.6%)	2 (2.4%)
9.	I create my own signals if the word is not in the KTBM and BIM dictionary.	59	3 (5.1%)	5 (8.5%)	10 (16.9%)	32 (54.2%)	9 (15.3%)
Overall Min		3.49					
Standard Deviation		0.531					
Interpretation Stage		Medium Height					

Implications of Studies and Recommendations

Based on the results of the study on the level of knowledge and skills, there are several implications and recommendations that need to be noted. Teachers' level of knowledge of a particular skill influences their teaching practices. This coincides with a study by Abdul Halim et al (2019), stating that teachers' knowledge of teaching involves the selection and use of teaching methods that can help students understand the content of the lesson, meet the learning needs of students individually and in groups, stimulate and retain students' attention, and improve student achievement performance. This shows that Special Education teachers need to understand the skills and ways to communicate using the right sign language according to the needs of the deaf (Beal, 2020). Therefore, the acceptance of BIM is very important to ensure that deaf students in schools do not fall behind in the latest developments in BIM.

According to Norma (2020), teachers need to have skills in pedagogy such as understanding teaching objectives and knowing the latest teaching techniques. Although they

possess basic skills in BIM, there is still a need for additional training such as courses and workshops to enhance those skills. These findings are supported by Omar (2020) stating that teacher preparation programs need to have an additional component on sign language acquisition. This is important so that teachers can communicate efficiently with deaf students where the use of sign language can have a positive impact on individual development and learning, increase awareness of communication, and facilitate interaction with others. In addition, sign language also helps in the development of language and communication skills, as well as improving self-esteem and independence.

The researchers put forward some of the first research proposals, namely that Special Education teachers should undergo BIM translation courses at universities and teaching institutions, as well as pass the BIM Skills Assessment test before teaching deaf students, just like Special Education teachers in the United States who took the American Sign Language Proficiency Interview (ASLPI) test. Second, introducing the Bilingualism-Bicultural (BiBi) education model. This model serves as a replacement for the whole communication method by moving from the first language, BIM to the second language, which is written Malay while appreciating the deaf culture. The BiBi model has been applied and expanded in the education of deaf students in many countries, including Norway, Denmark, Sweden, Ireland, Finland, the United States, and the United Kingdom. Third, the Ministry of Education Malaysia needs to recognise BIM as the main language of the deaf in Malaysia for all subjects taught in Special Education schools and Integrated Special Education Programmes. This is because most previous studies have examined the use of KTBM in the teaching and learning of deaf students.

Conclusion

In conclusion, the use of BIM helps deaf students understand the concepts and content of lessons better because it is their daily language, making the learning process easier and more effective. The use of BIM by Special Education teachers facilitates two-way communication between Special Education teachers and deaf students to build closer relationships and an in-depth understanding of the needs of deaf students. When deaf students are taught in a language they understand, they will feel more valued and recognized, increasing their motivation to learn and their confidence in communicating.

With the use of BIM, Special Education teachers who are proficient in BIM demonstrate their commitment to the education of deaf students, enhancing their professionalism and abilities in conducting classes with special needs. The use of BIM in teaching by Special Education teachers has a significant impact on the quality of education received by deaf students to ensure that they have the same opportunity to reach their full potential in academics and daily life.

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