

Perception of Hearing Special Education Teachers on the Use of Communication Sign Language Textbooks (BTBIK) in Teaching

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To Link this Article: <http://dx.doi.org/10.6007/IJARPED/v14-i1/24686> DOI:10.6007/IJARPED/v14-i1/24686

Published Online: 04 March 2025

Abstract

The teacher's perception is critical to help assess the suitability of BTBIK for use in teaching. This study aims to identify Hearing Special Education teachers on the suitability of the Communication Sign Language Textbook (BTBIK) and the technique of using BTBIK in teaching. This survey study involved 30 Hearing Special Education teachers in 18 National Schools of Special Education (SKPK) and the Integrated Special Education Programme (PPKI) in the states of Peninsular Malaysia. The data collection method was a questionnaire using a 5-scale Likert scale. The questionnaire consisted of respondents, suitability of content aspects as well as language and terminology, and techniques for using BTBIK in teaching. The data were analyzed descriptively, namely frequency, percentage, and mean. The study results showed that in general, the suitability of BTBIK for the content aspect was at a high level with a mean value of 4.21. BTBIK's suitability for language and terminology aspects is also high, with a mean score of 4.14. Meanwhile, the results for the use of BTBIK in teaching are at a very high level with a mean value of 4.31. Therefore, the overall perception of special education teachers for hearing impairment towards the use of BTBIK in teaching is at a high level with a mean value of 4.22.

Keywords: Communication Sign Language Textbook (BTBIK), special Education Teacher, Perception, Teaching Techniques

Introduction

Special education plays an important role in ensuring that students with hearing impairments achieve learning success on par with other students. Textbooks have long been the main tool in the PdP process and continue to be an important reference, including in the subject of Communication Sign Language (BIK) from (Dzulkifli et al., (2020); Goswami et al., 2019; Ide et al., 2018). The Communication Sign Language Textbook (BTBIK), introduced by the Textbook Division, Ministry of Education Malaysia (MOE), is specifically designed to cater to the needs of students with hearing impairments. This book is compiled based on the Standard Curriculum of Special Education Primary Schools (KSSRPK) and is the main reference material in the PdP of BIK subjects (KPM, 2015; Owino et al., 2023).

However, the success of BTBIK use is highly dependent on the creativity of teachers in conveying relevant content and attracting students' interest. According to (Fadhilah et al., 2022), teachers need creativity to diversify teaching methods so that students can actively participate in the PdP process.

The use of textbooks, including BTBIK, is an obligation under Circular No. 12/1999 issued by the Ministry of Education Malaysia. However, studies show that its use has not been widely adopted, especially in special hearing education (Assaf et al., 2021; Freedman, 2016; Yildirim & Yikmiş, 2022).

The first issue identified was the lack of awareness among teachers on the comprehensive communication approach involving Malaysian Sign Language (BIM) and the Malay Language Hand Code (KTBM) (Khan et al., 2022; Nurul Hasna Hassan et al., 2019; Yasin et al., 2017). Special education teachers tend not to make full use of BTBIK to support the learning of students with hearing impairments (Fu et al., 2022; Park & Shin, 2020; Sujarwanto et al., 2022).

The second issue is the lack of empirical studies that assess the suitability of the content, language, terminology, and techniques of using BTBIK. Teachers often face challenges in adapting textbook content to ensure the effectiveness of PdP (Fischer et al., 2018). Therefore, this study was conducted to understand the perception of typical education teachers towards BTBIK and identify steps to improve its effectiveness (Yurdakul, 2015).

This study focuses on Hearing Special Education teachers who teach Sign Language Communication subjects in Sekolah Kebangsaan Pendidikan Khas (SKPK) and the Integration Special Education Programme (PPKI). The sample consisted of 30 teachers from 18 schools in Peninsular Malaysia. The data was obtained through a questionnaire using a 5-point Likert scale, which was descriptively analyzed using the Statistical Package for the Social Sciences (SPSS) software version 29.0.

The limitations of the study covered location and population, where the results of this study may not be fully representative of special education teachers outside the designated area. The study also only examined teachers' perceptions, without involving direct observation of the PdP process or analysis of student learning outcomes.

Literature Review

Concept of Communication Sign Language Textbook (BTBIK)

The Communication Sign Language Textbook (BTBIK) is the main reference material designed specifically for students with hearing impairments in the subject of Communication Sign Language (BIK). This book aims to help students understand and master communication skills through sign language in a systematic manner. BTBIK is compiled based on the Curriculum and Assessment Standards Document (DSKP) issued by the Ministry of Education Malaysia (MOE), in line with the Special Education Primary School Standard Curriculum (KSSRPPK).

BTBIK integrates three key essential components, namely pre-sign skills, visual skills, and creative sign language skills. Pre-sign skills aim to help pupils recognize basic symbols and signs before they master sign language. Visual skills, on the other hand, focus on students'

ability to recognize and understand visual elements such as illustrations and pictures that depict signal symbols. Meanwhile, creative sign language skills encourage students to communicate smoothly and effectively using Malaysian Sign Language (BIM).

BTBIK plays an important role in supporting the teaching and learning process (PdP) of students with hearing impairments. According to (Newton & Newton, 2005), this textbook helps teachers plan creative teaching activities and enhances interaction between teachers and students. BTBIK also serves as a support material for students in understanding abstract concepts that are difficult to convey orally.

Textbook Usage in Malaysia

A study by Pavešić & Cankar, (2022) examined the use of English textbooks among students with hearing impairments. This study found that teachers use textbooks as the main resource in PdP planning. The results of the study show that textbooks play an important role in supporting the literacy of students with hearing impairments.

(Al Balushi, 2019; Alhamami & Ahmad, 2018) evaluated the suitability of BTBM in the classroom. The study found that teachers rated the content, language, and terms of BTBM as appropriate and at a high level. However, the effectiveness of its use depends on the teacher's creativity in conveying the content to the students.

A study by (Louttit, 1938; Rojas et al., 2022) shows that textbooks are the main reference for teachers and students in History subjects in primary schools. Teachers actively use textbooks in PdP activities and make them an important resource to engage students in understanding historical topics in more detail.

According to (UNESCO, 2010; Zozulia et al., 2022), textbooks play an important role as teaching aids (BBM) in primary schools. Teachers assess textbooks based on content, presentation, and exercises, as well as language and terminology. The results of the study show that textbooks are suitable for use as the main reference, but there is a need to increase adaptation and variation in their use.

Use of Textbooks Abroad

A study by (Kashpyrovskaya, 2018; Prykhodko & Olkhovyi, 2023) evaluated the effectiveness of special textbooks in improving the academic performance and social skills of special education students in the United States. Learners who used specialized textbooks showed significant improvements in academic achievement and social interaction. Teachers find that special textbooks are more suitable and effective in meeting the needs of students than general teaching materials.

A study by (Bhandari, 2022; Minelli-de-Oliveira et al., 2014) examined teachers' perceptions of the textbook-free curriculum in ASL teaching in Canada. The results of the study show that the absence of textbooks complicates the PdP process, especially in conveying abstract concepts. Teachers recommend the introduction of more structured aids, such as textbooks, to support systematic sign language learning.

(Puspita et al., 2019; Tang, 2021) assessed the effectiveness of textbooks in helping students with special needs in the UK. Textbooks tailored to students' needs help them understand

abstract concepts and improve social skills. Teachers report that the use of specialized textbooks strengthens the structure of PdP and makes it easier for students to understand the learning material better from (Kazmi, 2022; Park, 2024; Puspita et al., 2019).

The results of past studies show that textbooks play an important role in special education, especially in helping students understand complex concepts. Specially designed textbooks, such as BTBIK, can improve the communication ability of students with hearing impairments and support teachers' creativity in PdP. This study is in line with current studies that aim to understand the perception of special education teachers towards textbook of communication in sign languages in improving PdP outcomes.

Methodology

Study Design

This study uses a quantitative descriptive design with a survey approach. This design aims to explore and explain the current phenomenon, namely the perception of Hearing Special Education teachers towards the use of Communication Sign Language Textbooks (BTBIK). Descriptive studies are well-suited for understanding the views, perceptions, or behaviors of the study population (Creswell, 2005; Creswell, 2008, 2012). The survey approach involves using questionnaires as a data collection tool. The questionnaire includes items based on the five-point Likert scale, which assesses teachers' perception of three main constructs, namely the content of the textbook, the language and terminology used, and the technique of using textbook of communication in sign languages for teaching. The data obtained were analyzed using descriptive statistical methods, including frequency, percentage, and mean values. The structured data collection process allows for a clear analysis of the teacher's perception. The questionnaire approach allows for the collection of data from a larger sample in a short time.

Study Population and Sampling

The study population consisted of Special Hearing Education teachers who taught students with hearing impairments in the subject of Sign Language Communication (BIK). This study involved teachers at Primary School in Special Education (SKPK) and the Integrated Special Education Programme (PPKI) in Peninsular Malaysia. Samples are selected using a simple random sampling method. This method ensures that every teacher in the population has an equal chance of being selected, resulting in a sample that can be well representative of the population (Idris, 2013). The total sample of the study was 30 teachers, selected from a population of 35 Special Hearing Education teachers. This sample size is sufficient based on the tables of Krejcie and Morgan (1970) for a small-sized population. The characteristics of the sample are Special Hearing Education Teachers who teach sign language communication subjects at Primary School for deaf and Integrated Special Education Programme and are experienced in the use of textbook of communication in sign languages in teaching and teaching students with hearing impairments at the primary school level. The selection of these 30 teachers aims to ensure that the data obtained can be representative of the population. Random sampling procedures were easily chosen to minimize bias and improve the reliability of the study findings.

Study Instruments

The instruments used by researchers to obtain information and data in this study are by using a questionnaire. According to Lodico *et al.* (2010), questionnaires are the main tool for

collecting data in descriptive research. This questionnaire contains a Likert scale of 1 to 5 that represents the respondent's consent level. The Likert scale used was 1 "Strongly disagree", 2 "Disagree", 3 "Disagree", 4 "Agree" and 5 "Strongly agree".

Part A focused on the demographics of the respondents which included independent variable information such as school name, gender, BIK teaching experience, number of classes teaching BIK subjects, and courses on the use of textbooks in learning for a short period that had been followed. In Part B, there are 20 items that focus on 10 items to answer the first question about the suitability of the content aspect and 10 items to answer the second question about language and terminology in teaching. In this section, there are 10 items to answer the third question about the technique of using the Communication Sign Language Textbook (BTBIK) in teaching. The information and data obtained will be analyzed using statistical software, namely Statistical Packages for Social Science 29.0 (SPSS 29.0).

Validity and Reliability of Study Data

In this study, facial validity and content validity were carried out to consider the evaluation by experts in the field of measurement as well as in the field of special education for hearing impairments. Facial validity is something that researchers need to consider for themselves and there are no strict rules to ensure that validity (Yahaya *et al.* 2017). After the test was carried out, all items i.e. a total of 35 items were maintained while no other items were dropped as none of the items had a CVR value below 1.00.

The purpose of the action was to check all the statements that will be used in this study (Rubin & Babbie, 2011). The first panel was a Malay language specialist teacher (Head of the Malay Language committee). The second panel is a teacher specializing in hearing impairment (Chairman of the BIK Committee) and the third panel is a senior assistant teacher of Integrated Special Education Programme who is an expert in the field of special education. Reliability refers to measurements that have the same or nearly the same reliability every time a measurement is performed on the same individual. The higher the measure of reliability, the higher the validity.

The instrument that has been developed will undergo a pilot study on 30 Special Education for the Hearing Impaired who teach Sign Language Communication subjects in 17 Primary school for Deaf and Integrated Special Education Programme in Peninsular Malaysia. These samples were not used for actual studies. The use of small sample sizes is appropriate for the purposes of pilot studies that do not aim to generalize to the population.

Data Collection Procedure

According to Sugiyono (2010), the data collection procedure is the most important step because the main purpose of the research is to obtain data. Primary data is data taken from survey respondents directly based on the fieldwork carried out. In this study, the researcher used quantitative data, namely data collected through questionnaires. Upon approval from the academic supervisor, the researcher will apply for permission to conduct the study from the school concerned. Then, the questionnaire instrument will be distributed to the special education teachers involved by using an online form through the Google Forms software.

Data Analysis Procedure

Once the data can be collected, the data from the questionnaire will be analyzed using IBM SPSS (Statistical Packages For Social Science 29.0). Data analysis was made based on each study question that had been determined. The researchers used descriptive statistics to analyze the study data.

According to Fauziah *et al.* (2021), descriptive analysis also aims to obtain the number or frequency referred to as the frequency of the background information of the respondents collected. The data is simpler and the information is in a clear and convenient form. In this study, the descriptive statistics used to describe the data were frequency, percent, and mean. The descriptive statistics in this study were used to answer the questions of study one, two, and three.

To analyze the obtained mean, the researcher sets an interpretation of the mean value to describe the very low, low, medium, high, and very high levels based on score mean guidelines provided by Education Policy Planning & Research Division (2006).

Table 1

Interpretation of Mean Scoring

Score Mean	Level
1.00 – 1.89	Very Low
1.90 – 2.69	Low
2.70 – 3.49	Medium
3.50 – 4.29	High
4.30 – 5.00	Very High

Study Findings

Study Sample Profile

Table 1 shows the demographics of the respondents with a total of 30 respondents surveyed in 18 National Schools of Special Education (SKPK) and the Integrated Special Education Programme (PPKI) in Peninsular Malaysia that teach sign language communication subjects. A total of 30 respondents from 18 different primary school for deaf. Of the total, 7 respondents (23.3%) are male teachers while the remaining 23 respondents (76.7%) are female teachers who teach this subject.

The majority of special education teachers (28 respondents (93.3%)) have experience teaching sign language communication. However, a total of 2 respondents (6.7%) did not have an overview of education in the field of special education. The experience of the respondents in teaching sign language communication subjects in 18 SKPKs had different experiences. Many respondents had 4 years of experience teaching sign language communication subjects, with 13 respondents (43.4%). This was followed by 8 respondents (26.7%) with 3 years of experience teaching sign language communication subjects and 6 respondents (20.0%) with 2 years of teaching experience. Meanwhile, for the experience of teaching sign language communication subjects between one month and one year, only 3 respondents (10%) were present.

Furthermore, most respondents taught one class with 21 respondents (70%) compared to 7 respondents (23.3%) who taught only two classes. Meanwhile, respondents who taught three classes and four classes were only 1 (3.3%) respondent. A total of 19 respondents (63.3%) have never taken a course on the use of textbooks in learning for a short period of time. However, a total of 10 respondents (33.3%) had attended a textbook use course once. Meanwhile, for more than one participant, 1 respondent (3.3%) was twice.

Table 2

Background of the Demographic Sample of the Study

Demographic Background	Items	Frequencies	Percent (%)
School Name	Primary School for deaf 1	3	10.0
	Primary School for deaf 2	1	3.3
	Primary School for deaf 3	1	3.3
	Primary School for deaf 4	2	6.7
	Primary School for deaf 5	1	3.3
	Primary School for deaf 6	1	3.3
	Primary School for deaf 7	1	3.3
	Primary School for deaf 8	3	10.0
	Primary School for deaf 9	1	3.3
	Primary School for deaf 10	1	3.3
	Primary School for deaf 11	2	6.7
	Primary School for deaf 12	1	3.3
	Primary School for deaf 13	1	3.3
	Primary School for deaf 14	3	10.0
	Primary School for deaf 15	2	6.7
	Primary School for deaf 16	1	3.3
	Primary School for deaf 17	1	3.3
	Primary School for deaf 18	4	13.3
Gender	Men	7	23.3
	Woman	23	76.7
Special Education Major	Yes	28	93.3
	No	2	6.7
BTK Teaching Experience	1 months to 1 years	3	10.0
	2 years	6	20.0
	3 years	8	26.7
	4 years and above	13	43.3
Number of Classes Taught	1 Classes	21	70.0
	2 Classes	7	23.3
	3 Classes	1	3.3
	4 Classes	1	3.3
Textbook Course Usage	No	19	63.3
	1 times	10	33.3
	2 times	1	3.3
Total		30	100

Suitability of Content Aspects

Table 2 shows the Perception of Hearing Special Education Teachers on the Suitability of Content Aspects. Descriptive analysis shows that overall, the suitability of content aspects is at a high level, with mean score = 4.21, standard deviation = 0.38, and $n = 30$. This shows that the perception of the suitability of sign language communication textbook in terms of content is at a good level among special hearing education teachers. The high level of perception of the suitability of sign language communication textbook in terms of content can be seen from the answers given by the respondents. Half of the items from the content aspect of the content fit construct obtained a mean score value that exceeded the overall (mean >4.21). Items B1, B2, and B9 showed very high levels of content recording a mean score of more than 4.30 to 5.00.

Table 3

Perception of Hearing Special Education Teachers on the Suitability of Content Aspects

No.	Item	Scale (%)					Mean	Level
		STS	TS	KS	S	SS		
i) Suitability of the content aspect of BTBIK in teaching.								
B1	The content of BTBIK is arranged according to the requirements of the syllabus Lessons (SP).	-	-	-	19 (63.3%)	11 (36.7%)	4.37	Very High
B2	The content of the BTBIK is arranged according to the requirements of the Syllabus Description (HSP).	-	-	-	20 (66.7%)	10 (33.3%)	4.33	Very High
B3	The content of BTBIK covers all learning outcomes based on competency levels as stated in the HSP.	-	-	1 (3.3%)	22 (73.3%)	7 (23.3%)	4.20	High
B4	BIK teachers need to be given Adequate exposure to the use of BIK in Teaching and leaning.	-	-	-	23 (76.7%)	7 (23.3%)	4.23	High
B5	Pupils with disabilities hearing can master visual skills through BTBIK content in teaching and learning.	-	-	1 (3.3%)	20 (66.7%)	9 (30.0%)	4.27	High
B6	Pupils with disabilities hearing can master Creative Gesture Skills Through BTBIK content in teaching and learning.	-	-	4 (13.3%)	21 (70.0%)	5 (16.7%)	4.03	High
B7	BTBIK contains sentences that easy to understand by students with hearing impairment.	-	-	8 (26.7%)	15 (50.0%)	7 (23.3%)	3.97	High

B8	The content of BTBIK contains Elements of Thinking Skills for pupils with disabilities Hearing.	-	-	6 (20.0%)	17 (56.7%)	7 (23.3%)	4.03	High
B9	BTBIK content is geared towards to cultural diversity, language, religion and race in Malaysia.	-	-	-	16 (53.3%)	14 (46.7%)	4.47	Very High
B10	BTBIK content across Curriculum.	-	-	-	24 (80.0%)	6 (20.0%)	4.20	High
Average Mean Amount							4.21	High

Suitability in terms of Language and Terminology

Table 3 shows the perception of hearing special education teachers towards the suitability of language aspects and book terms. The descriptive analysis showed that overall, the perception of hearing special education teachers towards the appropriateness of language and terminology aspects was at a high level, with a mean score = 4.14, standard deviation = 0.41, and n = 30. The interpretation of this mean score shows that being between 3.50 and 4.29 is high. Items B11, B12, B13, and B15 show that the term and language level is at a high level with a mean score defect exceeding 3.50 to 4.29. These results show that special hearing education teachers agree that the content of sign language communication textbook is appropriate and supports the learning needs of students with hearing impairments despite the need for improvement in the use of vocabulary in sign language communication text book clearly by students with hearing impairments in item B19.

Table 4

Perception of Hearing Special Education Teachers on the Suitability of Language Aspects and Book Terms

No.	Item	Scale (%)					Mean	Level
		STS	TS	KS	S	SS		
ii) The suitability of language aspects and BTBIK terms in teaching.								
B11	BTBIK uses precise, consistent, and up-to-date language, terminology and spelling.	-	-	5 (16.7%)	14 (46.7%)	11 (36.7%)	4.20	High
B12	All spellings in BTBIK referred to the Dewan Bahasa Dictionary.	-	-	4 (13.3%)	18 (60.0%)	8 (26.7%)	4.13	High
B13	BTBIK use barrel Accurate Malay language and Fits the target group in the presentation of the material.	-	-	2 (6.7%)	19 (63.3%)	9 (30.0%)	4.23	High
B14	BTBIK uses Vocabulary Suitable for school pupils low.	-	-	2 (6.7%)	21 (70.0%)	7 (23.3%)	4.17	High

B15	Language presented in BTBIK are easy to understand.	-	-	3 (10.0%)	18 (60.0%)	9 (30.0%)	4.20	High
B16	Language presented in BTBIK are easily understood.	-	-	3 (10.0%)	22 (73.3%)	5 (16.7%)	4.07	High
B17	Instruction sentences used in BTBIK is easy to understand by a student with disabilities. Diverse hearing efficiency level.	-	1 (3.3%)	3 (10.0%)	20 (66.7%)	6 (20.0%)	4.03	High
B18	The use of language and terminology in the practice questions proposed in BTBIK is easy to understand by students with hearing impairment which has a wide range of efficiency levels.	-	-	2 (6.7%)	22 (73.3%)	6 (20.0%)	4.13	High
B19	Usage of vocabulary in BTBIK is clear by the pupil's hearing impairment.	-	-	4 (13.3%)	23 (76.7%)	3 (10.0%)	3.97	High
B20	Training in BTBIK is clear and according to the level of the student's hearing impairment.	-	-	-	22 (73.3%)	8 (26.7%)	4.27	High
Average Amount		Mean					4.14	High

Techniques for Using BTBIK by Special Education Teachers

Table 4 shows the techniques for the use of sign language communication textbook by Hearing Special Education teachers during teaching. The overall results of the analysis showed that 12 respondents (40.0%) agreed while based on the mean score obtained, 18 respondents strongly agreed (60.0%) that special hearing education teachers agreed that the technique of using sign language communication textbook during teaching is necessary during teaching. Items C2, C3, C4, C5, C6, C7, C8, C10 demonstrate the technique of using sign language communication textbook during very high teaching. For the C5 item that recorded the highest score (mean = 4.60), namely "Teachers need to be explained how to use sign language communication textbook in PdP".

Table 5

Techniques for using BTBIK by Hearing Special Education teachers during teaching

No.	Item	Scale(%)					Mean	Level
		STS	TS	KS	S	SS		
	ii) Technique for using BTBIK by special hearing education teachers who teach students with hearing impairment during teaching.							
C1	I regularly use BTBIK during teaching to teach students with hearing impairments who are highly functional.	-	-	1 (3.3%)	17 (56.7%)	12 (40.0%)	4.37	High
C2	I regularly use BTBIK during teaching to teach students with hearing impairments who have low functionality.	-	-	-	21 (70.0%)	9 (30.0%)	4.30	Very High
C3	Uses of BTBIK in teaching make work easier for teachers.	-	-	-	13 (43.3%)	17 (56.7%)	4.57	Very High
C4	BIK teachers need to be given adequate exposure to BTBIK usage in Teaching.	-	-	-	15 (50.0%)	15 (50.0%)	4.50	Very High
C5	Teachers need to be explained the method of using BTBIK in teaching.	-	-	-	12 (40.0%)	18 (60.0%)	4.60	Very High
C6	I often refer to BTBIK while preparing the Plan Daily Teaching (RPH).	-	-	-	17 (56.7%)	13 (43.3%)	4.43	Very High
C7	BTBIK helps me introduce new concepts to students with disabilities hearing.	-	-	1 (3.3%)	17 (56.7%)	12 (40.0%)	4.37	Very High
C8	I use BTBIK to provide training for students with hearing impairment.	-	-	1 (3.3%)	18 (60.0%)	11 (36.7%)	4.33	Very High
C9	I talked to a friend peers on ways using BTBIK effective in teaching.	1 (3.3%)	-	-	21 (70.0%)	8 (26.7%)	4.17	High
C10	I strive to always update my knowledge about the use of the technique BTBIK through reading materials and training.	-	-	1 (3.3%)	13 (43.3%)	16 (53.3%)	4.50	Very High
Average Mean Amount							4.31	Very High

Discussion

The findings of this study show that the three perceptions of hearing special education teachers towards the content, language, and terminology as well as the technique of using sign language communication textbook in teaching are at a very high level. Overall, the findings of this study explain that the perception of hearing special education teachers towards sign language communication textbook in teaching is at a very high level based on Gestalt Learning Theory (Setiyawan, Fitriani, Nasucha, & Muzfirah, 2021; Setiyawan, Fitriani, Nasucha, Muzfirah, et al., 2021).

Students with hearing impairments generally use the mainstream curriculum. However, there have been some modifications made to some of the subjects of the stream, especially in terms of the PdP approach. According to Gestalt Theory, these modifications show how special hearing education teachers restructure information and teaching approaches to meet the needs of the special needs of students with special hearing education. In line with Gestalt principles that emphasize the importance of understanding the entire relevant context in the learning process. A related study was also conducted by Guat (2010) which showed a positive score in terms of Malay textbook content in the integrated curriculum of primary schools. The results of the study prove that Malay textbooks need some improvement to make textbooks of better quality.

Teachers believe that Communication Sign Language Textbook is only a guide to the content but for the element of repetition skills, students with hearing impairments cannot be achieved through the use of BTBIK. This is so, the content of the verses in Communication Sign Language Textbook is too challenging for students with hearing impairments. Teachers had to find other materials for strengthening activities and drills. A related study conducted by Zarwawi (2015) also found that the implementation of the use of digital textbooks is still at a less satisfactory level and needs improvement in the future. However, the Ministry of Education Malaysia has implemented learning through digital textbooks to ensure that students do not fall behind in the development of technology in education.

According to Gestalt's theory, special education teachers of hearing and students with hearing impairments experience a process of intellectual literacy in understanding and using Communication Sign Language Textbook. This theory emphasizes that learning and understanding occur through meaningful perception in teaching. Special hearing education teachers apply this theory by finding the best way to convey vocabulary and hand gesture codes to students with hearing impairments so that students with hearing impairments can understand the content more effectively. The process of intellectual literacy occurs when hearing special education teachers find that the use of clear hand signal code vocabulary and pictures in Communication Sign Language Textbook helps students with hearing impairments achieve better understanding.

Textbooks are also used as a resource for student assessment, namely through question-and-answer activities, hinting correctly, spelling correctly, doing writing exercises, and evaluating students' work. However, the findings show that special education teachers feel that discussions with their peers on the techniques of using Communication Sign Language Textbook are necessary before planning teaching plan and making modifications to Communication Sign Language Textbook according to the level of understanding of students with hearing impairments. This opinion is in line with the Special Education Regulations (2013) Part 8 (1) which states that a teacher can make modifications to PdP methods or techniques such as BBM which includes modification of Communication Sign Language Textbook for students with hearing impairments who have low or high functionality. Through discussions and collaborations, hearing special education teachers not only enrich their knowledge but also contribute to the effectiveness of the use of Communication Sign Language Textbook in the teaching process which is more meaningful and effective for students with hearing impairments.

Study Implications

Experts argue that the use of textbooks can develop language in teaching methods. Therefore, the Communication Sign Language Textbook standards and frequency of use need to be planned as best as possible so that students with hearing impairments are not left behind in the flow of globalization. Therefore, the role of special education teachers is very important in realizing these objectives.

The role of the textbook panel in the findings of this study can be used as a guideline to write and produce textbooks that can meet the needs of students with hearing impairments at the primary school level. In this regard, the production of the textbook will give a new breath to MBK in achieving the objectives and goals as contained in the FPN.

According to Ghani and Ahmad (2013), since these special children suffer from short-term memory problems, parents can act to help these children by bringing them back to their memories by trying to give them early clues. As Communication Sign Language Textbook 60 is a series of compulsory readings for all students with hearing impairments in primary schools, the suitability of Communication Sign Language Textbook is very important to monitor parents to help their children in their studies at home based on Communication Sign Language Textbook only.

Recommendations for Further Studies

The study had limitations in terms of the sample, and the time it was attempted to look at in this study. In this study, it is hoped that this research will be a printout for research related to efforts to improve Sign Language Communication teaching in primary and secondary schools. For future researchers, it is hoped that they will be able to conduct further research in other aspects as well such as performance aspects as well as activities and training. In addition, it is proposed that in the future, a similar study be conducted on secondary school special education teachers so that the view on the quality of Communication Sign Language Textbook can be further enhanced and expanded. The study can be extended quantitatively by identifying variables and constructing hypotheses from thematic findings and subthemes for the construct of the frequency of Communication Sign Language Textbook use during classroom teaching. Lastly, to conduct a study on the disadvantages and benefits of Communication Sign Language Textbook from the perspective of the perception of students with hearing impairment to find out the need for and importance of textbooks to students with hearing impairment themselves. Naturally, students hearing impairments should also be allowed to assess this Communication Sign Language Textbook.

Conclusion

This study demonstrates that the Communication Sign Language Textbook (BTBIK) is a highly suitable teaching aid for students with hearing impairments. The findings indicate that teachers perceive the content, language, and terminology of BTBIK to be highly appropriate, while the techniques for its use in teaching are rated at a very high level. However, challenges such as the lack of standardized sign codes and the need for additional teacher training have been identified. To address these issues, this study suggests updating BTBIK content, implementing comprehensive teacher training programs, and integrating educational technology to improve instructional effectiveness. Future research should consider expanding

the sample size and incorporating qualitative analysis to better understand the challenges faced by teachers (Kamarul Azmi Jasmi, 2021; Mokhtar & Marni Jamil, 2021).

This study contributes to the field of special education and inclusive teaching for hearing-impaired students by providing empirical evidence on the effectiveness of structured instructional materials. It highlights the importance of continuous updates to teaching resources, the development of teacher training programs, and the integration of technology-driven learning tools. The findings are valuable for educators, policymakers, and curriculum developers in enhancing special education methodologies. By addressing existing challenges, this research supports the advancement of sign language education, ensuring that special education teachers are better equipped to provide effective instruction.

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