

**INTERNATIONAL JOURNAL OF
MODERN EDUCATION
(IJMOE)**www.ijmoe.com**EFFECTIVENESS OF 'ABAHATA' METHOD FOR THE
VISUALLY IMPAIRED IN LEARNING QURAN BRAILLE A
PILOT STUDY**

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Abstract:

This pilot study investigates the effectiveness of the 'Abahata' method as a novel approach for teaching Quran Braille to individuals with visual impairments. The 'Abahata' method, characterized by its tactile and auditory components, aims to enhance the learning experience and proficiency of visually impaired individuals in mastering Quranic Braille. Through a carefully designed curriculum and instructional strategy, the study examines the method's impact on learning outcomes, retention, and overall accessibility. The research employs a mixed-methods approach, combining quantitative assessments of Braille proficiency and qualitative insights through interviews and participant feedback. A cohort of visually impaired individuals, recruited from educational institutions and community organizations, undergoes training using the 'Abahata' method, and their progress is measured over a defined period. The study also explores the participants' experiences and perceptions of the method, shedding light on its potential advantages and challenges. Findings from this pilot study aim to contribute to the broader discourse on



inclusive education and accessible learning resources for individuals with visual impairments, specifically within the context of Quranic Braille. The outcomes will inform educators, curriculum developers, and policymakers about the viability and impact of the 'Abahata' method, potentially paving the way for its integration into mainstream educational practices for the visually impaired.

Keywords:

Abahata, Quantitative, Qualitative, Quranic Braille, Pilot Study

Introduction

According to Naipal and Rampersad (2018), visual impairment is a condition of reduced visual performance that cannot be remedied by refractive correction, surgery or medical methods. Based on (National Eye Survey, 1996), it is recorded that the prevalence of blindness and low vision in Malaysia was 0.29 percent and 2.44 percent for all ages, respectively (Chew FLM, et al., 2018; Sagili Chandrasekhara Reddy, Thanigasalam Thevi, 2017).

The incidence of blindness in children aged 7 to 15 years is 1% (based on Refractive Error Study in Children, 2003). The main cause of bilateral blindness was cataract, which accounted for 39 percent of the overall estimated cases (Chew FLM, et al., 2018) Visual impairment can result from disruption of the cornea, lens, vitreous, retina, and optic nerve. At any age and with varying degree of impairment, blindness may occur.

According to the World Health Organization (WHO), the Tenth Revision of the International statistical classification of disease and related health problems (ICD-10) when visual acuity is less than 6/18 but is equal to or better than 3/60, or corresponding visual field loss, or corresponding visual field loss, to less than 20 degrees, a person is considered to have low vision in the better eye with the best possible correction. When an individual's vision is worse than 3/60 in the better eye with the best possible correction and the visual field is less than 10 degrees in both eyes from fixation, a person is considered blind.

Table 1: Category Of Visual Impairment According To ICD-10

Category	Worse than:	Equal to or better than:
Mild or no visual impairment 0		6/18 3/10 (0.3) 20/70
Moderate visual impairment 1	6/18 3/10 (0.3) 20/70	6/60 1/10 (0.1) 20/200
Severe visual impairment 2	6/60 1/10 (0.1) 20/200	3/60 1/20 (0.5) 20/400
Blindness 3	3/60 1/20 (0.5) 20/400	1/60* 1/50 (0.02) 5/300 (20/1200)
Blindness 4	1/60* 1/50 (0.02) 5/300 (20/1200)	Light perception
Blindness 5	No light perception	No light perception
9	Undetermined or unspecified	Undetermined or unspecified

Braille is a writing system that inscribes characters on paper using patterns of raised dots. Braille is the sensory substitution that allows visually impaired people to read and write. It

encourages visually impaired people to use touch instead of vision to read and write. For all Braille symbols, the Braille cell consists of 6 dots, 2 across and 3 down, and is called the basic unit (see figure 1).

The term Braille Quran can be defined as al-Quran mushaf that can be read by touch, where the elements of Rasm and Dabt are represented by Braille codes based on the coordination of the six dots, while some of the elements are modified with specific characteristics that correspond to the ability of the reader to read the writing by touch (Mohd Nur Adzam, 2023). (M. Abualkishik, Omar 2008) stated that, the Arabic language is one of the languages translated into braille and blind Muslim people have used this device to read the Al-Quran. However, the current method is not complete, it does not include the unique vibrations needed in the recitation of Al-Quran that vary from the recitation of the Arabic language.

Table 2: The Dot That Represent Braille Symbols



Table 3: The Alphabet Letter In Braille

Table 4: Arabic Letter In Braille

ا	Alif	س	Seen	ل	Laam
ب	Baa	ش	Sheen	م	Meem
ت	Taa	ص	Swod	ن	Noon
ث	Thaa	ض	Dhod	ه	Ha
ج	Jeem	ط	Taw	و	Waaw
ح	Haa	ظ	Dhaw	واو Hamza	
خ	Khaa	ع	'Ain	لا	Laam Alif
د	Daal	غ	Ghain	ي	Yaa
ذ	Dhaal	ف	Faa	ي	Alif Maqsurah
ر	Raa	ق	Qaaf	ة	Taa Marbutah
ز	Zaa	ك	Kaaf	ى	Yaa Hamza

Arabic Braille Letter

In learning and teaching Al-Quran, there are several approaches and techniques. In order to ensure that students can master the skills of studying Quran, the learning methods and strategies need a rapid assessment and development. It included reading, memorizing, and learning the rules of Tajweed.

According to (Nadhray, et al., 2016), 'ABAHATA' is one of the process and technique that focuses on recognizing letters in the Al-Quran and identifying them. It is assumed that 'ABAHATA' method can be applied for children as the technique refers to learning by singing that could attract their psychological and behavioural in Al-Quran learning. It is certainly an enjoyable and simple method especially to master the reading of the Quran is also acceptable and appropriate for people of all ages, including children and adults (Wati Amusin, 2012).

Problem Statement

The visually impaired have the ability to understand the abstract concepts of the religion using the sense of hearing. They are also able to memorize the Al-Quran using listening methods only. The visually impaired can also be given help and guidance in reciting the holy verses of the Al-Quran using braille. However, they will not be able to read the braille Al-Quran even if they know how to learn the braille code of the rumi code. This is because the rumi braille code and the Quran are different.

There are challenges to the teaching and learning process of the Al-Quran module using braille for educators according to (Norakyairee, 2013). The Quran module using braille should achieved three standards, recognition of single *hijaiyah* alphabets, ability of vocalization for connected *hijaiyah* alphabets through writing using 'ABAHATA' formulae and techniques and using 'ABAHATA' formulae/techniques, enabling students to read and write syllables of words leading to complete *Aayah*.

Therefore, it is important to ensure proper learning in Al-Quran braille in terms of reading, memorizing and understanding the 'Tajweed' in visually impaired Muslim to recite the Quran in the best learning method. However, there is no study showed for 'ABAHATA' method is used in learning the Quran Braille. In this study the 'ABAHATA' method is used and imply in learning of the Quran braille to assess its quality and reliability, so that it can be used among visually impaired in Muslim population.

Objectives of Studies

1. To study how effective visually impaired patient in learning Quran braille using 'ABAHATA' method.
2. To develop the 'ABAHATA' method in learning the Quran braille among visual impaired patient
3. To determine the reliability of using 'ABAHATA' method for the visual impaired patient to learn and write a single letter of 'hijaiyah' of the Quran braille.
4. To evaluate the quality of learning the Quran braille for the visual impaired patient with and without using 'ABAHATA' method.

Hypothesis

Null: The 'ABAHATA' method is not effective for the visual impaired patient to imply in learning the Quran braille.

Alternative: The 'ABAHATA' method is effective for the visual impaired patient to imply in learning the Quran braille.

Literature Review

This chapter is about the further information that found related with the study. Then, it will discuss further regarding the important of braille, Quran braille limitation and challenges, 'ABAHATA' method to use in learning Quran and 'ABAHATA' effectiveness parameters.

The Importance of Braille

For the visually impaired, braille is an essential system of tactile writing that is widely adapted and used around the world. Since the first half of the 20th century, attempts have been made by a number of Muslim countries to improve the Braille Quran (Abualkishik, Omar 2003). In Malaysia, the creation and publication of the production of the Quran in Braille is carried out by a non- governmental organisation known as PERTIS (Persatuan Orang-orang Cacat Penglihatan Islam Malaysia) or the Visually Impaired Muslims of Malaysia Association. Together with the required vocalisation, the Quran uses Grade 1 Arabic Braille code as its basis (Zarif, Usman, Noornajihan, 2015).

Moreover, they also stated that Braille was introduced in Arabic language research by Abdul Malik Al-Salman, who suggested the Arabic Braille Environment method (ABE). The ABE method converts and reverses the Arabic language into Braille symbols. It is without the use of abbreviations or vibrations because it is restricted to the Arabic language. Braille Quran is specifically created for the visually impaired to read the Al-Quran which allows visually impaired people to read and write using touch instead of vision stated by (Ahmad et al, 2009; Maisarah et al, 2011).

Plainly, in daily communication, Braille is used and independence is given as a literate blind or visually impaired person. An essential part of every language is grammar. This is what enables the written and spoken messages to be understood. An understanding of the various

grammatical components of language ensures the ability of a person to express themselves and acquire the skills necessary for written documentation. According to (M. Abualkishik, Omar 2008) too many words sound exactly the same, as in the English language, and can thus be easily confused.

To, too, to, 2. There, they, they, they are. In addition to the spoken word, Braille allows people who are blind access to the written word, allowing them to “see” spelling and grammar first hand. If someone is not an auditory learner, learning a foreign language or improving a native language is the ability to read braille. For audio, compared to a semicolon, they cannot know where and how commas are used. Braille helps someone to see exactly how something is written, how words are spelled, to imagine trying to infer how a sentence is written and organized by just hearing it.

Limitation And Challenges In Learning Quran Braille

The Difficulty Usage of Braille Quran skills

The main issue and challenge faced is the students who do not have the basics of the Braille Qur'an code. Most students in the 1st grade are students who do not have the basics of the Braille Qur'an code. Therefore, teachers need to teach them from the beginning and need to give more emphasis to these students. The main challenge for mastering reading the Quran in Braille is to know the letters first. They are introduced to the code. Al-Qur'an Braille using Braille text so that they can recognize the codes and the teacher teaches one by one. Once they know the codes, they will read Iqra 'book stated by (Yunus M.N, 2017).

In other case, according to (Mohd Nur Adzam Rasdiet al., 2013), 5 teachers interviewed stated that they had no direct basis for reading the Quran using Braille Quran at an early stage as a teacher because they never got exposure while attending teacher training. However, when placed in special education schools, they have to learn on their own to ensure that teaching can be implemented properly. Only one teacher has ever had a basic exposure to the Braille Quran though not in depth. He got the exposure while attending teacher training in the field of Islamic Education, Special Education.

The results of the interviews found that three teachers did not teach the Al-Quran using Braille Quran, only three teachers taught using Braille Quran. This showed that the main issue is also faced by teachers, especially teachers who are just starting to teach is that they do not master the Braille code of the Quran.

Limited Teaching Time

Based on (Yunus M.N, 2017) research through his observations and interviews, the teaching time allocated to teach these students is very limited and insufficient. Considering that the Braille Quran teachers under the organization of PERTIS and JAWI are also instructors at the Gurney Training Center, MAB, the learning time for the Braille al-Qur'an students organized by PERTIS can only be held on weekends. Classes can only be held twice a month.

However, if teachers have other commitments, classes are only done once a month. This showed that the time for the student to learn the Quran braille is very limited due to schedule that has been organized.

Another interviewed done by (Mohd Nur Adzam Rasdiet al., 2013) said that the emphasizing on Quranic recitation is somewhat less which more focus on other components. This caused some of them to take the initiative to hold additional classes in the evening to strengthen students' understanding of the skills of using Braille Quran. This only applies to boarding schools. While day school has to go through the school system like a typical student, which is concentrated during school hours only.

Lack Of Teachers

The findings of the study also found that the number of Braille Quran teachers is insufficient. For example, (Yunus M.N, 2017) stated that Braille Quran teachers in the MAB Complex is also insufficient because there are only two teachers to teach 35 students. Generally, in a normal primary or secondary school, two teachers are enough to control and teach 35 students. However, it is different when teaching special people.

This is because they need specific and more frequent focus throughout the learning period. With their sensory disabilities and limitations, teachers need to provide more teaching and monitoring in the classroom, especially students in level 1. While students in level 2 need to be placed in a class with a large number of students. Although the classroom space is quite large but the large number of students in one class makes it difficult for teachers to pay attention to students more effectively and well.

Regardless of the consideration regarding this issue of consistence to lenses substitution plan, the wellbeing implication of poor contact lens replacement interim has not been examined.

'Abahata' Method To Use In Learning Al-Quran

'ABAHATA' is a simplified method for beginners to teach the diction of the Quran or tajweed. The lack of simple learning methods contributes to teaching difficulties. The technique enables the Quranic illiterates to learn what to read with simple tajweed and to write the Quranic scripeter rasmor the written form of the Quran with an understanding of the functions of notes and strokes. (Nadhras, et al., 2016) explained that the reading portion begins and is sung to the memory aid section based on alphabet lyrics. To offer particular significance, the alphabets are arranged.

The lyrics and tune cover the functions related to the notations and strokes. This repeated "singing" is strengthened by gestures of the hands that correspond with the respective notes or strokes. The learning is improved and further enhanced by writing components when the reading has been completed, starting with single *hijaiyah*, then the combined *hijaiyah* forming the Quranic words. Thus, integrating singing, hand gestures and writings, each strengthening the other to provide a very strong foundation for subsequent learning phases. .

Recognition Of Single Hijaiyah Alphabets

According to (Basirah, Zulkifli Yusoff, 2018), it stated that the first one is to reinforce recognition and memory absorption and recall by writing. Next, the recognition of the vocalization alphabets of *hijaiyah*. The third is the subsequent distinction of vocalization in the Quran as influenced by strokes and signs. Finally, to coincide with the respective Quranic signs, the perception of the effects of signs on vocalization by 'ABAHATA' explicitly designated hand gestures.

Ability Of Vocalization for Connected Hijaiyah Alphabet

The ability to vocalize related *hijaiyah* alphabets by using 'ABAHATA' formulas and techniques to write as it is the basis for tajweed rules. Recognizing and recognizing improvements in writing forms for connected alphabets of *hijaiyah* and the ability to write connected alphabets of *hijaiyah* into words. This also based on (Basirah, Zulkifli Yusoff, 2018).

Able To Read and Write Syllables of Words Leading to Complete Aayah

(Basirah, Zulkifli Yusoff, 2018) stated that it helps students to read and write syllables of words leading to full *Aayah* using 'ABAHATA' formulae or methods, which fixes the following common errors, no breathing in between words or syllables and stop or pause in the middle of syllables.

There are also common errors in the length of harakat between syllables. It is also the understanding and exercises through demonstration techniques of 'ABAHATA' to allow students to master the precise basis of pronunciation to apply more advanced *tajweed* rules that vocalize *tanwin* origins through realistic experiential sound creation by tongue placement. Lastly, it is also the interpretation of the differential points of articulation or *makhraj* that through 'ABAHATA' vocalization teaching techniques is the root of the *hijaiyah* alphabet for *sukun*.

'Abahata' Effectiveness Parameters

Frequency

It was found on the basis of the finding that listening capacity involves a combination of other abilities in order to help them become more concentrated. This scenario occurs while they were listening to the Al-Quran recitation (Nadhras, et al., 2016). The scenario confirms the words of one of the teachers who said students need something they like as a bait for them to concentrate more on learning. In addition, listening capacity is often closely related to the ability to imitate and pronounce, whereby students ultimately imitate and pronounce the sounds or words they have been listening to many times. It is the time taken for the students to focus a listening and reading frequency.

Duration Of Arranging and Constructing

Duration of arranging and constructing is what extent that the students could identify the correct order of the alphabets. The students' worked on combined the *hijaiyah* words, the progress reading the complexity of the construction created. (Nadhras, et al., 2016) stated that a fascinating chronology that involves both arranging and construction skills was discovered during the observation session. In the early stage, the kids will usually make a straightforward arrangement that is not too difficult. Typically, the shape of their arrangement is performed longitudinally, vertically or in a circle.

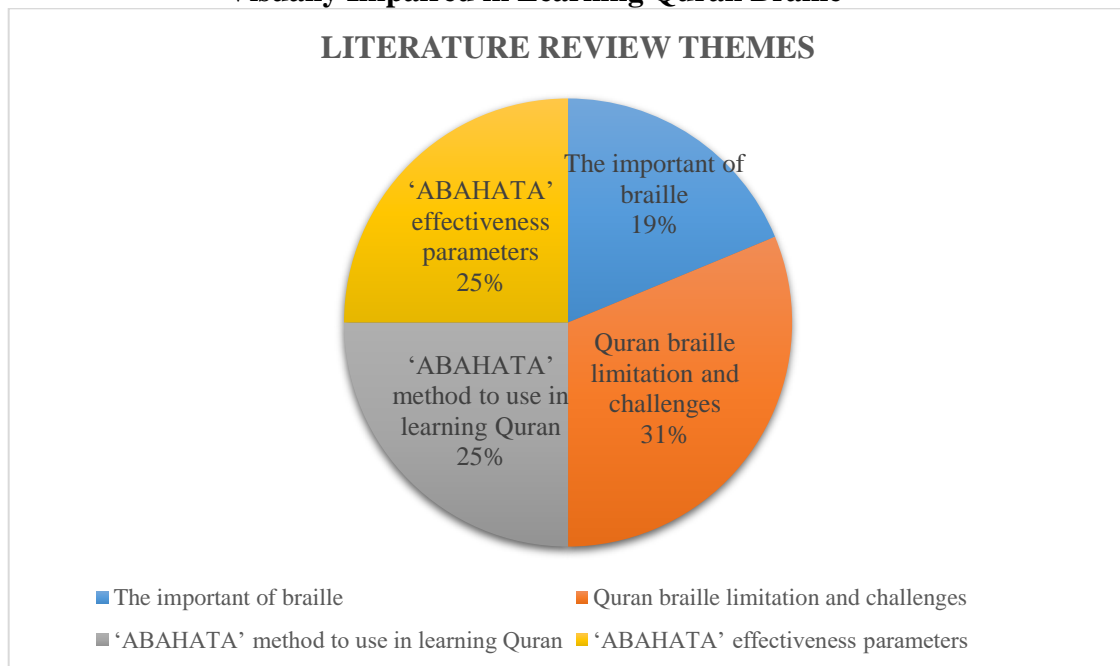
Limitation

Limitation is what extent that the students could imitate even a little improvement. The pronouncing ability is, of course, closely linked to imitation skills. The children will generally be directed by trainers in the Al-Quran class to pronounce the *hijaiyah* letters by making them mimic the mouth movement. The children seemed able to mimic and pronounce the sound of *hijaiyah* letters as created earlier, after being repeated many times (Nadhras, et al., 2016).

Pronunciation

The Pronunciation is when the hijaiyah word or ayah that are pronounced by students. The pronunciation by students is also taken by looking how closed the pronunciation can be with the pronunciation of the *hijaiyah* alphabet said by the teachers to the students which also done by the (Nadhras, et al., 2016) as the last parameters to the effectiveness to read the Quran.

Table 5: Literature Review Themes for Effectiveness of ‘ABAHATA’ Method for The Visually Impaired in Learning Quran Braille

**Methodology**

The visually impaired have the ability to understand the abstract concepts of the religion using the sense of hearing. They are also able to memorize the Al-Quran using listening methods only (Mansur Hidayat Pasaribu, M. F. Z., 2020). The visually impaired can also be given help and guidance in reciting the holy verses of the Al-Quran using braille (Razaly, F., et al., 2010). However, they will not be able to read the braille Al-Quran even if they know how to learn the braille code of the Rumi code. This is because the Rumi braille code and the Quran are different (Nik Azimah Zainab Nik Mohd Rahim, et al., 2020).

Research Design

An observational study design under cohort study was chosen as the study design for this research. This study helps to study on patient ability of using ‘ABAHATA’ method to learn and write a single letter of ‘hijaiyah’ of the Quran braille.

Sample S Method

It is a convenience sampling which 20 subjects from Sekolah Kebangsaan Pendidikan Khas Jalan Batu (B), Selangor is selected to participate in this study according to inclusion and exclusion. This study sample includes of 20 subject that are divided in 10 student as the control group and another 10 is subjects with ‘ABAHATA’ method for learning the Quran braille regardless of which year.

Selection Criteria

Inclusion

The inclusion criteria is any subject from Year 1 to Year 6 from Sekolah Kebangsaan Pendidikan Khas Jalan Batu (B), no basis in reading the Quran, s know how to read braille, the visually impaired Muslim, Grade of impairment of 3, 4 and 5 according to International Classification of Diseases 10 (ICD 10), and do not know the write a single letter of 'hijaiyah' of the Quran braille.

Exclusion

The exclusion criteria is patient with any other impairment such as hearing and mute, had any cognitive disease, Grade of impairment of 0, 1 and 2 according to International Classification of Diseases 10 (ICD 10), visually impairment patient that used other aids and does not used braille.

Sampling Area

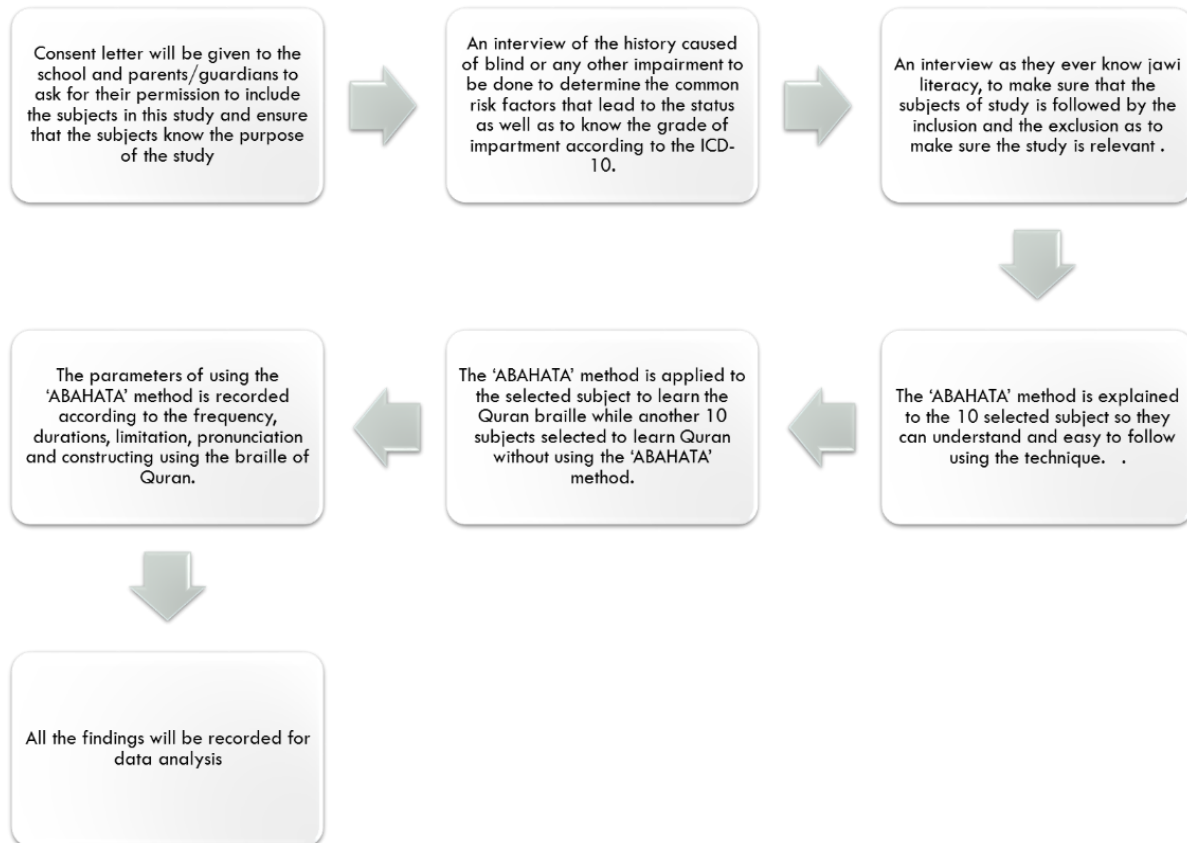
Sekolah Kebangsaan Pendidikan Khas Jalan Batu (B) is located at Jln Raja Laut, Chow Kit, 50350 Kuala Lumpur, Federal Territory of Kuala Lumpur, Malaysia. It is the place to interview the students the history caused of blind or any other impairment to be done to determine the common risk factors that lead to the status, an interview as they ever know jawi literacy and selection of participant in the study according to inclusion and exclusion.

Table 6: Sekolah Kebangsaan Pendidikan Khas Jalan Batu (B)



On the other hand, Sekolah Kebangsaan Pendidikan Khas Jalan Batu is one of the visual impairment students' studies. It is the place where they learn interpersonal communication skills, orientation and mobility skills, life skills and academic development.

Table 7: Flow Of the Data Collection



Data Analysis

A data analysis of 'ABAHATA' method in learning the Quran using the 'ABAHATA' effectiveness parameters. Data will be using Atlas.ti software which is the latest version is the Atlas.ti 8. It is used to coding and analyzing transcripts. The content analysis is referring to the categorization of the unstructured questions and the parameters of the data collection.

Ethical Consideration

A validated consent form will be issued by Management and Science University to Sekolah Kebangsaan Pendidikan Khas Jalan Batu (B). Participants will be briefly explained about the objective and purposes of the research. The participants will have the right to withdraw or stop immediately if there is any discomfort at any point of time during the study. All participants' information will be held confidential and solely for the purpose of current study only.

Expected Outcome

The 'ABAHATA' method is used and imply in learning of the Quran braille is to look at the duration of effectiveness of book 1 'ABAHATA' braille. The 'ABAHATA' method is used and imply in learning of the Quran braille is conduct as the ongoing programs. The main limitation of the research is the duration of time provided as it gives a restriction to perform this study on larger sample size. Other than that, the subjects are primary schooler that it may cause unreliable responses.

Conclusion

To summarize, the visually impaired can understand abstract religious concepts and memorize Quranic verses through audio channels. While braille makes Quranic recitation easier, the difference between the rumi braille code and Quranic text is a substantial challenge. Educators confront challenges when teaching Quranic braille, which necessitates adherence to certain instructional standards, particularly the 'ABAHATA' formula for syllabic recognition and vocalization. However, empirical evidence for the 'ABAHATA' technique in Quranic braille instruction is insufficient. Thus, more research is needed to determine the efficacy and dependability of the 'ABAHATA' technique in promoting Quranic learning among visually challenged Muslims, ensuring thorough reading, memorizing, and 'Tajweed' understanding.

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