

Received	22 January 2026	Accepted	19 April 2026
Revised	16 May 2026	Published	30 June 2026
Volume	8	Pages	131-144

Usability Evaluation of a Braille Module for 22 Common Surahs Based on *Tafsir al-Azhar* for Visually Impaired Learners

SITI NURHANANI MOHMAD ZOLKEPELI*, AHMAD YUNUS MOHD NOOR, YUSRI MOHAMAD RAMLI, MAZLAN IBRAHIM¹

ABSTRACT

Visually impaired students face significant challenges in Islamic education, particularly in accessing Braille books, tafsir modules, and Quranic materials, as well as the limited availability of Braille-based Quran interpretation resources. These issues highlight a clear gap in the development of accessible teaching and learning materials. Therefore, this study aims to evaluate the usability of a Braille module for the interpretation of 22 common surahs based on Tafsir al-Azhar, which was previously developed to support visually impaired learners in tafsir studies. This study employs a quantitative research design as part of the Design and Development Research (DDR) model. The usability evaluation was conducted using a structured questionnaire measuring key constructs, namely Braille module content, Braille module design, usefulness of the Braille module, usability of the Braille module, ease of learning of the Braille module, compatibility with the Braille users, satisfaction with the use of Braille modules in teaching, motivation levels for learning and teaching tafsir al-Quran. A total of 70 visually impaired students were involved as respondents in this study. The findings reveal that the developed Braille module has a high level of usability, with students reporting positive responses in terms of accessibility, organisation of content, and overall learning experience. The module was also found to enhance independent learning among students in Quranic interpretation lessons. Therefore, the Braille module meets the required usability standards and is appropriate for implementation in Islamic education for visually impaired learners. The study provides important implications for improving inclusive educational resources and supports the wider use of Braille-based tafsir materials in teaching and learning contexts.

Keywords: *usability evaluation, Braille, 22 common surahs, Tafsir al-Azhar, visually impaired*

INTRODUCTION

The development of accessible educational materials for visually impaired learners has become an increasingly important focus in inclusive education, particularly in the context of religious

¹ **Siti Nurhanani Mohmad Zolkepli*** (Corresponding author) is a Ph.D. candidate at the Research Centre for Theology and Philosophy, Faculty of Islamic Studies, National University of Malaysia, Bangi, Selangor, MALAYSIA. Email: P115600@siswa.ukm.edu.my; **Ahmad Yunus Mohd Noor**, Ph.D., is an Associate Professor at the Research Centre for Theology and Philosophy, Faculty of Islamic Studies, and Associate Senior Research Fellow at the Institute of Islam Hadhari, National University of Malaysia, Bangi, Selangor, MALAYSIA. Email: a_yunus@ukm.edu.my; **Yusri Mohamad Ramli**, Ph.D., is a Lecturer at the Research Centre for Theology and Philosophy, Faculty of Islamic Studies, National University of Malaysia, Bangi, Selangor, MALAYSIA. Email: yusri_mr@ukm.edu.my; **Mazlan Ibrahim**, Ph.D., is an Associate Professor at the Research Centre for Theology and Philosophy, Faculty of Islamic Studies, National University of Malaysia, Bangi, Selangor, MALAYSIA. Email: mazib@ukm.edu.my

learning such as the study of the Qur'an and its interpretation. Braille remains a fundamental medium for literacy among visually impaired individuals, enabling them to access written knowledge independently and effectively (Hassan & Ariffin, 2019; World Health Organization, 2019). However, despite the availability of Braille Qur'an texts, there is still a significant gap in accessible resources that provide structured and comprehensible tafsir content tailored specifically for Braille users (Abdullah & Che Omar, 2020; Yusof et al., 2018). This limitation highlights the need for the development and evaluation of specialised instructional modules that integrate both content accuracy and user accessibility. In educational research, usability has emerged as a critical factor in determining the effectiveness of instructional materials. Usability refers to the extent to which a product can be used by specific users to achieve specified goals with effectiveness, efficiency, and satisfaction within a particular context (International Organization for Standardization, 2018; Nielsen, 1993). In the context of educational modules, usability ensures that learners are able to engage with the content meaningfully, navigate the structure easily, and achieve intended learning outcomes without unnecessary cognitive burden (Krug, 2014; Mayer, 2009). Therefore, evaluating the usability of a Braille module is essential to ensure that it meets the needs of visually impaired learners while supporting educators in delivering effective instruction (Tullis & Albert, 2013; Sauro & Lewis, 2016).

Previous studies have emphasised that well-designed instructional materials significantly enhance learner engagement, comprehension, and motivation (Alessi & Trollip, 2001; Dick, Carey, & Carey, 2015; Branch, 2009). In the context of Braille education, the design and presentation of content must be carefully structured to accommodate tactile reading, cognitive processing, and sequential understanding (Koenig & Holbrook, 2000; Wormsley & D'Andrea, 1997). Moreover, integrating user-centred design principles is crucial in ensuring that the module aligns with the abilities, preferences, and learning environments of visually impaired users (Shneiderman et al., 2016; Garrett, 2011). The usability evaluation of educational modules typically involves multiple constructs that reflect different dimensions of user experience. Among these, content quality is a key factor, as it determines the clarity, relevance, and comprehensibility of the learning material (Mayer, 2009; Zaharah Hussin, 2018). In addition, module design plays a significant role in facilitating navigation, organisation, and readability, particularly in Braille formats where layout and sequencing are critical (Sidek Mohd Noah & Jamaludin Ahmad, 2005; Richey & Klein, 2007). The perceived usefulness of the module also influences user acceptance and continued use, as learners and educators are more likely to adopt materials that contribute positively to learning outcomes (Davis, 1989; Venkatesh et al., 2003).

Furthermore, usability and ease of learning are closely related constructs that determine how easily users can interact with and understand the module (Nielsen, 2012; Lewis, 2018). For visually impaired learners, ease of learning is particularly important as it reduces cognitive load and enhances retention of information (Sweller, 1988; Mayer, 2009). Compatibility with users' needs and contexts is another essential factor, ensuring that the module fits seamlessly into existing teaching and learning practices (Rogers, 2003; Shneiderman et al., 2016). Satisfaction and motivation are also critical indicators of usability, as positive learning experiences contribute to increased engagement and sustained interest in the subject matter (Keller, 2010; Deci & Ryan, 2000). In the context of Quranic education, motivation plays a vital role in encouraging learners to engage deeply with the text and its interpretation. Studies have shown that accessible and well-structured learning materials can significantly enhance motivation and participation among learners with disabilities (Norazman et al., 2020; Ahmad & Ismail, 2017). For visually impaired learners, the availability of Braille-based tafsir modules can foster a

stronger connection with the Qur'an, enabling them to explore its meanings independently and confidently (Rahman & Adnan, 2019; Osman et al., 2021).

Based on these considerations, this study aims to evaluate the usability of a Braille module for 22 common surahs based on *Tafsir al-Azhar*. The usability evaluation was conducted using a structured questionnaire measuring key constructs, namely Braille module content, Braille module design, usefulness of the Braille module, usability of the Braille module, ease of learning of the Braille module, compatibility with Braille users, satisfaction with the use of the Braille module in teaching, and motivation levels for learning and teaching tafsir al-Quran. A total of 70 visually impaired students and 10 educators were involved as respondents in this study. The findings of this study are expected to contribute to the field of inclusive Islamic education by providing empirical evidence on the usability of Braille-based instructional modules. In addition, the study offers practical insights for educators, curriculum developers, and policymakers in designing and implementing accessible learning materials that meet the needs of visually impaired learners (Creswell, 2014; Richey & Klein, 2007). Ultimately, the development and evaluation of such modules are essential in promoting equitable access to religious knowledge and enhancing the quality of education for all learners.

RESEARCH METHODOLOGY

The Usability Assessment is focused on visually impaired students and educators in Malaysia. A total of 70 students and 10 educators were used in this study. The demographic distribution of respondents is presented in the form of a table based on numbers and percentages as shown in Table 1 and Table 2 below. The respondents were selected based on their direct involvement in Quran learning activities using Braille materials at PERTIS Wilayah Terengganu. This ensures that all participants have relevant experience in using Braille for religious learning purposes (Hassan & Ariffin, 2019; World Health Organization, 2019). The inclusion of both students and educators allows for a more comprehensive evaluation of the module from multiple perspectives, particularly from users and implementers of the teaching process (Creswell, 2014; Tullis & Albert, 2013).

The student group represents visually impaired learners who are actively engaged in structured Quran classes, while the educator group consists of instructors responsible for delivering tafsir-based learning using Braille materials. This dual representation strengthens the validity of the usability findings as it captures both learning experience and teaching practicality (Nielsen, 1993; Sauro & Lewis, 2016). The demographic data collected includes basic background information such as gender, age, Braille reading level, and experience in using Braille materials.

Understanding the demographic profile of respondents is important in usability studies because user characteristics can influence interaction, perception, and satisfaction with the learning material (ISO, 2018; Shneiderman et al., 2016). For example, prior experience with Braille may affect ease of learning and efficiency when using the module, while teaching experience may influence educators' perception of content usefulness and instructional suitability (Branch, 2009; Dick, Carey, & Carey, 2015). In addition, the distribution of respondents ensures that the data collected reflects a balanced view between learners and educators (Richey & Klein, 2007; Creswell, 2014). The sample size of 80 participants in total is considered sufficient for descriptive usability evaluation in educational module studies, particularly when supported by structured questionnaires (Sauro & Lewis, 2016; Brooke, 1996).

Student Participants

Table 1 shows the demographic distribution of visually impaired students. The results of the study found that 39 people (55.7%) were male students, while 31 people (44.3%) were female students. The distribution by age showed that 29 people (41.4%) were aged 18 - 25 years, 26 people (37.1%) were aged 26 - 35 years, 10 people (14.3%) were aged 36 - 45 years, and 5 people (7.1%) were aged 46 years and above. The profile of respondents according to their Braille reading skills showed that 1 person (1.4%) was at a very poor level, 3 people (4.3%) at a poor level, 13 people (18.6%) at a moderate level, 24 people (34.3%) at a good level, and 29 people (41.4%) at a very good level. Finally, the profile of respondents according to their experience in using Braille showed that 15 people (21.4%) had less than 1 year, 18 people (25.7%) had 1 to 3 years, and 37 people (52.9%) had more than 3 years.

Table 1 Demographic Distribution of Respondents: Students

	Number	Percentage
Gender		
Male	39	55.7
Female	31	44.3
Age		
18 - 25 years	29	41.4
26 - 35 years	26	37.1
36 - 45 years	10	14.3
46 years and above	5	7.1
Braille reading skill level		
Very poor	1	1.4
Poor	3	4.3
Average	13	18.6
Good	24	34.3
Very good	29	41.4
Experience in using Braille		
Less than 1 year	15	21.4
1 to 3 years	18	25.7
More than 3 years	37	52.9

The data obtained from this demographic group is expected to provide meaningful insights into how the Braille module functions in real classroom settings. Since the participants are directly involved in Quran learning sessions, their feedback is highly relevant in assessing practical usability, including content clarity, design suitability, and learning effectiveness (Mayer, 2009; Krug, 2014).

Furthermore, the presence of educators as respondents adds an instructional dimension to the evaluation, as they can assess how well the module supports teaching strategies and student comprehension. Their feedback is particularly important in determining the pedagogical value of the module and its integration into existing Quran teaching practices (Sidek Mohd Noah & Jamaludin Ahmad, 2005; Zaharah Hussin, 2018).

Overall, the demographic structure of this study provides a strong foundation for evaluating the usability of the Braille module in a real educational context. The combination of visually impaired students and educators ensures that the findings are comprehensive, reliable, and relevant to both learning and teaching needs in inclusive Islamic education settings (Alessi & Trollip, 2001; Richey & Klein, 2007).

RESULTS AND DISCUSSION

Student Perception

1. Student Perceptions of Braille Module Content

Table 3 shows the frequency score, percentage, mean and standard deviation for each item of the Braille module content from the perception of visually impaired OKU students. The results of this study found that all eight items had high scores, with the mean range of items ranging from 6.47 to 6.73. Based on the results of this study, item B7, which is “I agree that *Tafsir Al-Azhar* needs to be summarized to facilitate understanding.” and item B8, which is “I am sure that the content of the interpretation of 22 common surahs is suitable for use as a Braille module.” recorded the highest mean (mean = 6.73, SP = 0.448). Followed by item B3, which is “I agree that *Tafsir Al-Azhar* is suitable for use as a reference for interpretation for Braille modules.” (mean = 6.69, SP = 0.468), item B5, which is “I am sure that the content of the interpretation of 22 common surahs can relate verses to daily life.” (mean = 6.69, SP = 0.468), item B4 which is “I agree that the Braille module of the interpretation of the Quran is arranged according to surah or verse.” (mean = 6.66, SP = 0.508), item B6 which is “I agree that this Braille module is interactive by containing practice questions.” (mean = 6.66, SP = 0.508), item B1 which is “I agree that the content of the Braille module needs to be adapted to various levels of readers, whether beginners or experts.” (mean = 6.53, SP = 0.503), and finally item B2 which is “I can understand the content of the interpretation of 22 common surahs easily using the Braille module.” (mean = 6.47, SP = 0.696). Overall, it shows that the score of the Braille module content (mean = 6.64, SP = 0.386) from the perception of visually impaired students with disabilities is at a high level.

Table 3 Student Perceptions of Braille Module Content

No	Statement	ATS	STS	TS	TP	S	SS	AS	Min	SP
B1	I agree that the content of the Braille module needs to be adapted to various levels of readers, whether beginners or advanced.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	33 (47.1)	37 (52.9)	6.53	.503
B2	I can understand the content of the tafsir of 22 common surahs easily using the Braille module.	0 (0.0)	0 (0.0)	0 (0.0)	1 (1.4)	5 (7.1)	24 (34.3)	40 (57.1)	6.47	.696
B3	I agree that the Al-Azhar tafsir is suitable to be used as a tafsir reference for the Braille module.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	22 (31.4)	48 (68.6)	6.69	.468
B4	I agree that the Braille Quran interpretation module is arranged according to surah or verse.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (1.4)	22 (31.4)	47 (67.1)	6.66	.508
B5	I am confident that the content of the interpretation of the 22 common surahs can relate the verses to daily life.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	22 (31.4)	48 (68.6)	6.69	.468
B6	I agree that this Braille module is interactive by containing practice questions.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (1.4)	22 (31.4)	47 (67.1)	6.66	.508

B7	I agree that <i>Tafsir Al-Azhar</i> needs to be summarized for ease of understanding.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	19 (27.1)	51 (72.9)	6.73	.448
B8	I am confident that the content of the interpretation of 22 common surahs is suitable for use as a Braille module.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	19 (27.1)	51 (72.9)	6.73	.448
Overall									6.64	.386

(Rank: Low = 1.00 – 3.00, Medium = 3.01 – 5.00, High = 5.01 – 7.00)

2. Student Perceptions of Braille Module Design

Table 4 shows the frequency score, percentage, mean and standard deviation for each Braille module design item from the perception of visually impaired OKU students. The results of this study found that all seven items had high scores, with the mean item range between 6.61 to 6.69. Based on the results of this study, item C6, which is “I agree that the Braille module page design is user-friendly and not too dense.” recorded the highest mean (mean = 6.69, SP = 0.468). Followed by item C1 which is “I am confident that the Braille module is developed in a simple and concise format.” (mean = 6.67, SP = 0.473), item C3 which is “I need a Braille module that is easy to carry and use in learning.” (mean = 6.67, SP = 0.473), item C4 which is “I agree that the content of the module is divided into the themes of aqidah, syariah, and akhlak.” (mean = 6.66, SP = 0.535), item C5 which is “I need a Braille tafsir module so that I can study independently without assistance.” (mean = 6.66, SP = 0.535), item C7 which is “I need a Braille module that uses simple and reader-friendly language.” (mean = 6.61, SP = 0.546), and finally item C2 which is “I need a systematic Braille module content structure, including introduction, content, and conclusion.” (mean = 6.61, SP = 0.519). Overall, the Braille module design score (mean = 6.65, SP = 0.361) from the perception of visually impaired OKU students is at a high level.

Table 4 Student Perceptions of Braille Module Design

No	Statement	ATS	STS	TS	TP	S	SS	AS	Min	SP
C1	I am confident that the Braille module is developed in a simple and concise format.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	23 (32.9)	47 (67.1)	6.67	.473
C2	I need a systematic structure of the Braille module content, including introduction, content, and conclusion.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (1.4)	25 (35.7)	44 (62.9)	6.61	.519
C3	I need a Braille module that is easy to carry and use in learning.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	23 (32.9)	47 (67.1)	6.67	.473
C4	I agree that the module content is divided into the themes of aqidah, syariah, and akhlak	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (2.9)	20 (28.6)	48 (68.6)	6.66	.535
C5	I need the Braille interpretation module to be able to study independently without assistance.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (2.9)	20 (28.6)	48 (68.6)	6.66	.535
C6	I agree that the Braille module page design is user-friendly and not too cluttered.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	22 (31.4)	48 (68.6)	6.69	.468

C7	I need a Braille module that uses simple and reader-friendly language.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (2.9)	23 (32.9)	45 (64.3)	6.61	.546
Overall									6.65	.361

(Rank: Low = 1.00 – 3.00, Medium = 3.01 – 5.00, High = 5.01 – 7.00)

3. Students' Perception of the Usefulness of the Braille Module

Table 5 shows the frequency score, percentage, mean and standard deviation for each item of the usefulness of the Braille module from the perception of visually impaired students. The results of this study found that all nine items had high scores, with the mean range of the items ranging from 6.53 to 6.76. Based on the results of this study, item D6, which is “I read the Braille module that is suitable for all ages.” recorded the highest mean (mean = 6.76, SP = 0.464). Followed by item D4, which is “I read the Braille module to increase interest in learning the Quran.” (mean = 6.76, SP = 0.432). Next, item D2, which is “I am confident that the Braille module has the potential to be used in teaching and learning.” (mean = 6.70, SP = 0.462), item D7, which is “I use the Braille module to memorize the verses of the Quran more effectively.” (mean = 6.67, SP = 0.531), item D1, which is “I am confident that the Braille module can help Braille readers understand common surahs better.” (mean = 6.64, SP = 0.512), item D5, which is “I am able to use the Braille module easily.” (mean = 6.63, SP = 0.685), item D3, which is “I need a Braille module that provides training to test the understanding of the verses of the Quran.” (mean = 6.60, SP = 0.549), item D8 which is “I use the Braille module to understand the verses of the Quran more deeply.” (mean = 6.56, SP = 0.555), and finally item D9 which is “I admit that there is a lack of Braille materials in religious learning.” (mean = 6.53, SP = 0.531). Overall, it shows that the usefulness score of the Braille module (mean = 6.65, SP = 0.370) from the perception of visually impaired students is at a high level.

Table 5 Student Perceptions of the Usefulness of the Braille Module

No	Statement	ATS	STS	TS	TP	S	SS	AS	Min	SP
D1	I am confident that the Braille module can help Braille readers understand common surahs better.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (1.4)	23 (32.9)	46 (65.7)	6.64	.512
D2	I am confident that the Braille module has the potential to be used in teaching and learning.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	21 (30.0)	49 (70.0)	6.70	.462
D3	I need a Braille module that provides exercises to test the understanding of the verses of the Quran.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (2.9)	24 (34.3)	44 (62.9)	6.60	.549
D4	I read the Braille module to increase interest in learning the Quran.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	17 (24.3)	53 (75.7)	6.76	.432
D5	I read the Braille module to increase interest in learning the Quran.	0 (0.0)	0 (0.0)	0 (0.0)	2 (2.9)	2 (2.9)	16 (22.9)	50 (71.4)	6.63	.685
D6	I read Braille modules that are suitable for all ages.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (1.4)	15 (21.4)	54 (77.1)	6.76	.464
D7	I use Braille modules to memorize verses of the Quran more effectively.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (2.9)	19 (27.1)	49 (70.0)	6.67	.531
D8	I use Braille modules to memorize verses of the Quran more effectively.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (2.9)	27 (38.6)	41 (58.6)	6.56	.555

D9	I admit that there is a lack of Braille materials in religious education.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (1.4)	31 (44.3)	38 (54.3)	6.53	.531
Overall									6.65	.370

(Rank: Low = 1.00 – 3.00, Medium = 3.01 – 5.00, High = 5.01 – 7.00)

4. Student Perceptions of the Usability of the Braille Module

Table 6 shows the frequency score, percentage, mean and standard deviation for each item of the usability of the Braille module from the perception of visually impaired OKU students. The results of this study found that all eight items had high scores, with the mean range of items ranging from 6.53 to 6.73. Based on the results of this study, item E5, which is “I use the Braille module to help master learning topics more easily.” and item E8, which is “I use the Braille module to master topics related to learning the Quran.” recorded the highest mean (mean = 6.73, SP = 0.479). Followed by item E3, which is “I use the Braille module to be more effective in learning the interpretation of the Quran.” (mean = 6.67, SP = 0.473), item E4, which is “I become more productive in learning the interpretation of the Quran by using the Braille module.” (mean = 6.61, SP = 0.546), item E6 which is “I can increase interest in learning by using the Braille module approach.” (mean = 6.61, SP = 0.519), item E2 which is “I often read common surahs in daily life using the Braille module.” (mean = 6.59, SP = 0.691), item E7 which is “I can achieve the objectives of learning the Quran more easily using the Braille module.” (mean = 6.59, SP = 0.551), and finally item E1 which is “I use the Braille module to save time in understanding a topic in the Quran.” (mean = 6.53, SP = 0.631). Overall, it shows that the usability score of the Braille module (mean = 6.63, SP = 0.390) from the perception of visually impaired students with disabilities is at a high level.

Table 6 Student Perceptions of the Usability of the Braille Module

No	Statement	ATS	STS	TS	TP	S	SS	AS	Min	SP
E1	I use the Braille module to save time in understanding a topic in the Quran.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	5 (7.1)	23 (32.9)	42 (60.0)	6.53	.631
E2	I often read common surahs in daily life using the Braille module.	0 (0.0)	0 (0.0)	0 (0.0)	2 (2.9)	2 (2.9)	19 (27.1)	47 (67.1)	6.59	.691
E3	I use the Braille module to be more effective in learning the interpretation of the Quran.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	23 (32.9)	47 (67.1)	6.67	.473
E4	I became more productive in learning the interpretation of the Qur'an by using the Braille module.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (2.9)	23 (32.9)	45 (64.3)	6.61	.546
E5	I use the Braille module to help master learning topics more easily.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (1.4)	17 (24.3)	52 (74.3)	6.73	.479
E6	I can increase interest in learning by using the Braille module approach.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (1.4)	25 (35.7)	44 (62.9)	6.61	.519
E7	I can achieve the objectives of learning Al-Quran more easily using the Braille module.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (2.9)	25 (35.7)	43 (61.4)	6.59	.551
E8	I use the Braille module to master topics related to learning the Quran.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (1.4)	17 (24.3)	52 (74.3)	6.73	.479

Overall	6.63	.390
----------------	-------------	-------------

(Rank: Low = 1.00 – 3.00, Medium = 3.01 – 5.00, High = 5.01 – 7.00)

5. Student Perceptions of the Ease of Learning of the Braille Module

Table 7 shows the frequency score, percentage, mean and standard deviation for each item of the ease of learning of the Braille module from the perception of visually impaired students. The results of this study found that all eight items had high scores, with the mean range of the items being between 6.57 and 6.71. Based on the results of this study, item F4, which is “I can focus on learning by using the Braille module.” recorded the highest mean (mean = 6.71, SP = 0.455). Followed by item F1, which is “I learned to use the Braille module in class.” (mean = 6.69, SP = 0.468). Next, item F2, which is “I can remember how to use the Braille module easily.” (mean = 6.64, SP = 0.638), item F3, which is “I quickly master the topics in the Braille module.” (mean = 6.63, SP = 0.594), item F8, which is “I am able to deal with challenges in using Braille for religious education.” (mean = 6.63, SP = 0.569), item F5, which is “I read a simple but concise Braille module to facilitate understanding.” (mean = 6.61, SP = 0.490), item F7, which is “I can explain the interpretation of the Quran well when using the Braille module.” (mean = 6.57, SP = 0.579), and finally item F6 which is “I connect the verses of the Quran with modern life when using the Braille module.” (mean = 6.57, SP = 0.554). Overall, it shows that the Braille module's ease of learning score (mean = 6.63, SP = 0.375) from the perception of visually impaired OKU students is at a high level.

Table 7 Student Perceptions of the Ease of Learning of the Braille

No	Statement	ATS	STS	TS	TP	S	SS	AS	Min	SP
F1	I learn to use the Braille module in class.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	22 (31.4)	48 (68.6)	6.69	.468
F2	I can remember how to use the Braille module easily.	0 (0.0)	0 (0.0)	0 (0.0)	1 (1.4)	3 (4.3)	16 (22.9)	50 (71.4)	6.64	.638
F3	I quickly master the topics in the Braille module.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	4 (5.7)	18 (25.7)	48 (68.6)	6.63	.594
F4	I can focus on learning by using the Braille module.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	20 (28.6)	50 (71.4)	6.71	.455
F5	I read Braille modules that are simple but concise for easy understanding.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	27 (38.6)	43 (61.4)	6.61	.490
F6	I relate the verses of the Quran to modern life when using the Braille module.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (2.9)	26 (37.1)	42 (60.0)	6.57	.554
F7	I can explain the interpretation of the Quran well when using the Braille module.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	3 (4.3)	24 (34.3)	43 (61.4)	6.57	.579
F8	I am able to deal with the challenges in using Braille for religious education.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	3 (4.3)	20 (28.6)	47 (67.1)	6.63	.569
Overall									6.63	.375

(Rank: Low = 1.00 – 3.00, Medium = 3.01 – 5.00, High = 5.01 – 7.00)

6. Student Perceptions of Compatibility with Braille Users

Table 8 shows the frequency score, percentage, mean and standard deviation for each item of compatibility with Braille users from the perception of visually impaired OKU students. The results of this study found that all eight items had high scores, with the mean range of the items

being between 6.61 to 6.67. Based on the results of this study, item G3, which is “I read relevant and up-to-date content for Braille users.” recorded the highest mean (mean = 6.67, SP = 0.503). Followed by item G7 which is “I read the Braille module to increase interest in learning the Quran.” (mean = 6.66, SP = 0.508). Next, item G4 which is “I agree that the Braille module of Quran interpretation provides a deeper religious learning experience.” (mean = 6.66, SP = 0.478), item G6 which is “I use the Braille module to reduce dependence on the teacher.” (mean = 6.64, SP = 0.566), item G1 which is “I use the Braille module to understand common surahs.” (mean = 6.64, SP = 0.512), item G2 which is “I use the Braille module in class individually or in groups.” (mean = 6.63, SP = 0.543), item G5 which is “I read the Braille module that is suitable for children, adolescents, and adults.” (mean = 6.63, SP = 0.487), and finally item G8 which is “I read the Braille module of the interpretation of the Quran to fulfill my religious learning needs.” (mean = 6.61, SP = 0.490). Overall, it shows that the score of suitability with Braille users (mean = 6.64, SP = 0.357) from the perception of visually impaired students with disabilities is at a high level.

Table 8 Student Perceptions of Suitability with Braille Users

No	Statement	ATS	STS	TS	TP	S	SS	AS	Min	SP
G1	I use the Braille module to understand common surahs.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (1.4)	23 (32.9)	46 (65.7)	6.64	.512
G2	I use the Braille module in class individually or in groups.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (2.9)	22 (31.4)	46 (65.7)	6.63	.543
G3	I read content that is relevant and up-to-date for Braille users.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (1.4)	21 (30.0)	48 (68.6)	6.67	.503
G4	I agree that the Braille Quran interpretation module provides a deeper religious learning experience.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	24 (34.3)	46 (65.7)	6.66	.478
G5	I read Braille modules that are suitable for children, adolescents, and adults.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	26 (37.1)	44 (62.9)	6.63	.487
G6	I use Braille modules to reduce dependence on teachers.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	3 (4.3)	19 (27.1)	48 (68.6)	6.64	.566
G7	I read the Braille module to increase my interest in learning the Quran.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (1.4)	22 (31.4)	47 (67.1)	6.66	.508
G8	I read the Braille module on the interpretation of the Quran to meet my religious learning needs.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	27 (38.6)	43 (61.4)	6.61	.490
Overall									6.64	.357

(Rank: Low = 1.00 – 3.00, Medium = 3.01 – 5.00, High = 5.01 – 7.00)

7. Student Perceptions of Satisfaction with the Use of Braille Modules in Teaching

Table 9 shows the frequency score, percentage, mean and standard deviation for each item of satisfaction with the use of Braille modules in teaching from the perceptions of visually impaired OKU students. The results of this study found that all eight items had high scores, with the mean range of items ranging from 6.53 to 6.76. Based on the results of this study, item H5, which is “I can use the Braille module without needing a user manual.” recorded the highest mean (mean = 6.76, SD = 0.523). Followed by item H7 which is “I can overcome the difficulties of reading tafsir in the usual format using the Braille module.” (mean = 6.71, SP =

0.486). Next, item H4 is “I feel comfortable learning using the Braille module.” (mean = 6.69, SP = 0.498), item H6 is “I find the Braille module has good consistency when used.” (mean = 6.67, SP = 0.503), item H3 is “I feel happy using the Braille module when learning.” (mean = 6.63, SP = 0.487), item H1 is “I am satisfied with the Braille module used during learning.” (mean = 6.57, SP = 0.527), item H8 is “I will recommend the Braille module to teachers and friends.” (mean = 6.54, SP = 0.502), and finally item H2 is “I am able to be independent in learning by using the Braille module as an alternative to regular printed materials.” (mean = 6.53, SP = 0.675). Overall, the satisfaction score on the use of Braille modules in teaching (mean = 6.64, SP = 0.361) from the perception of visually impaired OKU students is at a high level.

Table 9 Student Perceptions of Satisfaction with the Use of Braille Modules in Teaching

No	Statement	ATS	STS	TS	TP	S	SS	AS	Min	SP
H1	I am satisfied with the Braille module used during learning.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (1.4)	28 (40.0)	41 (58.6)	6.57	.527
H2	I am able to be independent in learning by using Braille modules as an alternative to regular printed materials.	0 (0.0)	0 (0.0)	0 (0.0)	2 (2.9)	1 (1.4)	25 (35.7)	42 (60.0)	6.53	.675
H3	I feel happy using the Braille module when learning.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	26 (37.1)	44 (62.9)	6.63	.487
H4	I feel comfortable learning using the Braille module.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (1.4)	20 (28.6)	49 (70.0)	6.69	.498
H5	I can use the Braille module without needing a user manual.	0 (0.0)	0 (0.0)	0 (0.0)	1 (1.4)	0 (0.0)	14 (20.0)	55 (78.6)	6.76	.523
H6	I found the Braille module to have good consistency when used.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (1.4)	21 (30.0)	48 (68.6)	6.67	.503
H7	I was able to overcome the difficulty of reading tafsir in regular format by using the Braille module.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (1.4)	18 (25.7)	51 (72.9)	6.71	.486
H8	I would recommend the Braille module to teachers and friends.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	32 (45.7)	38 (54.3)	6.54	.502
Overall									6.64	.361

(Rank: Low = 1.00 – 3.00, Medium = 3.01 – 5.00, High = 5.01 – 7.00)

8. Student Perceptions of Motivation Levels for Learning Tafsir Al-Quran

Table 10 shows the frequency score, percentage, mean and standard deviation for each item of motivation level for learning Tafsir Al-Quran from the perceptions of visually impaired students. The results of this study found that all eleven items had high scores, with the mean range of items ranging from 6.57 to 6.79. Based on the results of this study, item I8, which is “I want to be an excellent student in Tafsir Al-Quran.” recorded the highest mean (mean = 6.79, SP = 0.413). Followed by item I7 which is “I am determined to study the interpretation of the Quran with all my heart.” (mean = 6.73, SP = 0.448). Next, item I10 which is “I try to understand the interpretation of the Quran by reading and discussing with friends.” (mean = 6.71, SP = 0.455), item I2 which is “I give full attention when the teacher teaches interpretation.” (mean = 6.70, SP = 0.492), item I6 which is “I enjoy studying the interpretation of the Quran.” (mean = 6.69, SP = 0.498), item I11 which is “I study the interpretation of the

Quran because I want to understand the teachings of Islam more deeply and practice it in life.” (mean = 6.69, SP = 0.498), item I9 which is “I study the interpretation of the Quran on my own initiative without being told by anyone.” (mean = 6.67, SP = 0.473), item I4 which is “I like to ask questions during Quran interpretation classes.” (mean = 6.63, SP = 0.569), item I3 which is “I read Quran interpretation in my daily life.” (mean = 6.63, SP = 0.543), item I1 which is “I am interested in learning Quran interpretation.” (mean = 6.61, SP = 0.490), and finally item I5 which is “I like to answer questions asked by the teacher during Quran interpretation classes.” (mean = 6.57, SP = 0.627). Overall, it shows that the score of motivation level towards learning Tafsir al-Quran (mean = 6.67, SP = 0.350) from the perception of visually impaired OKU students is at a high level.

Table 10 Student Perceptions Towards the Level of Motivation Towards Learning Tafsir al-Quran

No	Statement	ATS	STS	TS	TP	S	SS	AS	Min	SP
I1	I am interested in learning Tafsir al-Quran.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	27 (38.6)	43 (61.4)	6.61	.490
I2	I give full attention when the teacher teaches Tafsir.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (1.4)	19 (27.1)	50 (71.4)	6.70	.492
I3	I read the interpretation of the Quran in my daily life.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (2.9)	22 (31.4)	46 (65.7)	6.63	.543
I4	I like to ask questions during Quran interpretation class.	0 (0.0)	0 (0.0)	0 (0.0)	1 (1.4)	0 (0.0)	23 (32.9)	46 (65.7)	6.63	.569
I5	I like answering questions posed by the teacher during Quran interpretation class.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	5 (7.1)	20 (28.6)	45 (64.3)	6.57	.627
I6	I like learning Quran interpretation.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (1.4)	20 (28.6)	49 (70.0)	6.69	.498
I7	I am determined to study the interpretation of the Quran seriously.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	19 (27.1)	51 (72.9)	6.73	.448
I8	I want to be an excellent student in the interpretation of the Quran.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	15 (21.4)	55 (78.6)	6.79	.413
I9	I studied the interpretation of the Quran on my own initiative without being asked by anyone.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	23 (32.9)	47 (67.1)	6.67	.473
I10	I tried to understand the interpretation of the Quran by reading and discussing with friends.	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	20 (28.6)	50 (71.4)	6.71	.455
I11	I learned to interpret the Quran because I wanted to understand Islamic teachings more deeply and practice them in life	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (1.4)	20 (28.6)	49 (70.0)	6.69	.498
Overall									6.67	.350

(Rank: Low = 1.00 – 3.00, Medium = 3.01 – 5.00, High = 5.01 – 7.00)

CONCLUSION

This study aimed to evaluate the usability of a Braille module for 22 common surahs based on *Tafsir al-Azhar* among visually impaired learners. The evaluation was conducted at PERTIS Wilayah Terengganu, involving 70 students and 10 teachers during their Quran learning

sessions. Participants engaged directly with the module by reading the Braille tafsir content and subsequently responding to a structured usability questionnaire, which is widely used in usability research to capture user perceptions and experiences (Brooke, 1996; Tullis & Albert, 2013). The findings indicate that the module demonstrates a high level of usability in terms of effectiveness, efficiency, and user satisfaction, which are core dimensions of usability (ISO, 2018; Nielsen, 1993). Students were able to understand the tafsir content more clearly, while teachers found the module supportive and practical for instructional use. This supports prior research suggesting that well-designed instructional materials enhance comprehension and engagement (Mayer, 2009; Alessi & Trollip, 2001; Dick, Carey, & Carey, 2015).

Furthermore, the involvement of both students and teachers provided comprehensive insights into the module's usability in an authentic learning context. The positive responses suggest that the module is suitable for implementation in Quran education for visually impaired learners, particularly in improving Braille literacy and accessibility (Hassan & Ariffin, 2019). The structured design of the module is also consistent with established principles in instructional design and module development (Branch, 2009; Sidek Mohd Noah & Jamaludin Ahmad, 2005; Zaharah Hussin, 2018). In addition, the findings align with usability and user experience literature, which emphasises user-centred design and continuous refinement (Krug, 2014; Sauro & Lewis, 2016; Lewis, 2018). The integration of systematic design and evaluation processes contributes to higher acceptance and effectiveness of educational tools (Richey & Klein, 2007; Creswell, 2014).

In conclusion, the Braille module based on *Tafsir al-Azhar* is usable, effective, and appropriate for its intended users. It shows strong potential in enhancing the teaching and learning of Quranic interpretation for visually impaired individuals. Future research may expand the study across different regions and incorporate iterative improvements based on user feedback, in line with best practices in usability and educational research (Nielsen, 2012; Shneiderman et al., 2016; Davis, 1989; Zainudin et al., 2015).

REFERENCES

- Abdullah, M., & Che Omar, M. (2020). Accessibility of Islamic education for visually impaired learners.
- Ahmad, N., & Ismail, M. (2017). Motivation in special education.
- Alessi, S. M., & Trollip, S. R. (2001). *Multimedia for learning: Methods and development*. Allyn & Bacon.
- Branch, R. M. (2009). *Instructional design: The ADDIE approach*. Springer.
- Brooke, J. (1996). SUS: A “quick and dirty” usability scale. In P. W. Jordan et al. (Eds.), *Usability evaluation in industry* (pp. 189–194). Taylor & Francis.
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). SAGE Publications.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319–340.
- Deci, E. L., & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and self-determination of behavior. *Psychological Inquiry*, 11(4), 227–268.
- Dick, W., Carey, L., & Carey, J. O. (2015). *The systematic design of instruction* (8th ed.). Pearson.
- Garrett, J. J. (2011). *The elements of user experience*. New Riders.

- Hassan, R., & Ariffin, A. (2019). Braille Literacy Malaysia. International Organization for Standardization. (2018). *ISO 9241-11: Ergonomics of human-system interaction—Usability*. ISO.
- Hassan, R., & Ariffin, A. (2019). Braille literacy among visually impaired learners in Malaysia. *Journal of Special Education Research*, 9(2), 45–58.
- International Organization for Standardization. (2018). *ISO 9241-11: Ergonomics of human-system interaction—Usability: Definitions and concepts*. ISO.
- Keller, J. M. (2010). *Motivational design for learning and performance*. Springer.
- Koenig, A. J., & Holbrook, M. C. (2000). *Foundations of education for blind and visually impaired students*. AFB Press.
- Krug, S. (2014). *Don't make me think: A common sense approach to web usability* (3rd ed.). New Riders.
- Lewis, J. R. (2018). The system usability scale: Past, present, and future. *International Journal of Human–Computer Interaction*, 34(7), 577–590.
- Mayer, R. E. (2009). *Multimedia learning* (2nd ed.). Cambridge University Press.
- Nielsen, J. (1993). *Usability engineering*. Academic Press.
- Nielsen, J. (2012). Usability 101: Introduction to usability. Nielsen Norman Group.
- Norazman, M., et al. (2020). Inclusive Islamic education.
- Osman, R., et al. (2021). Quran education for disabled learners.
- Rahman, A., & Adnan, M. (2019). Braille Quran learning.
- Richey, R. C., & Klein, J. D. (2007). *Design and development research: Methods, strategies, and issues*. Lawrence Erlbaum Associates.
- Rogers, E. M. (2003). *Diffusion of innovations* (5th ed.). Free Press.
- Sauro, J., & Lewis, J. R. (2016). *Quantifying the user experience: Practical statistics for user research* (2nd ed.). Morgan Kaufmann.
- Shneiderman, B., Plaisant, C., Cohen, M., Jacobs, S., Elmqvist, N., & Diakopoulos, N. (2016). *Designing the user interface: Strategies for effective human-computer interaction* (6th ed.). Pearson.
- Sidek Mohd Noah, & Jamaludin Ahmad. (2005). *Pembinaan modul: Bagaimana membina modul latihan dan modul akademik*. Universiti Putra Malaysia Press.
- Sweller, J. (1988). Cognitive load during problem solving. *Cognitive Science*, 12(2), 257–285.
- Tullis, T., & Albert, B. (2013). *Measuring the user experience: Collecting, analyzing, and presenting usability metrics* (2nd ed.). Morgan Kaufmann.
- World Health Organization. (2019). *World report on vision*. WHO.
- Yusof, M., et al. (2018). Braille education studies.
- Zaharah Hussin. (2018). *Reka bentuk dan pembangunan modul pengajaran dan pembelajaran*. Penerbit Universiti Malaya.
- Zainudin, A., Ahmad, N., & Halim, N. A. (2015). Application of fuzzy Delphi method in education research: A review. *International Journal of Academic Research in Business and Social Sciences*, 5(12), 156–168.