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Towards an Uthmanic Model of Quranic Orthography in Braille

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Abstract

The adaptation of Braille in writing the Quran is one of the most important contributions of the Muslims to ensure that the visually challenged amongst them are able to learn and read the words of God. To date, Muslim countries, including Malaysia, have produced their own versions of the Quran in Braille, yet these Qurans are not based on the Uthmanic method of Quranic orthography. Consequently, this has led to variations, mistakes and inconsistencies in the spelling and marking of the Quranic verses. In this paper, the aim is to propose an Uthmanic model of Quranic orthography in Braille. It focuses on the chapter of Maryam as its sample and applies the qualitative methods of textual and comparative analysis on the revelational criteria of Quranic orthography and the limitations of the Braille writing system. This results in a more standardized and adaptable model of Quranic orthography in Braille with minimal changes in the use of vocalization and other diacritical marks of the Quran. Currently, this model is proposed to serve as a basis for the development of a national standard of Quranic orthography in Braille by the relevant authorities in cooperation with the visually challenged organizations in Malaysia.

Keywords: Uthmanic model; Quran; Braille; Malaysia; Orthography

Introduction

Braille is an important system of tactile writing for the visually challenged that is widely adapted and used throughout the world. The efforts taken by a number of Muslim countries to develop the Quran in Braille have started since the first half of the 20th century. In Malaysia, the development of producing the Quran in Braille and its publication is undertaken by a non-government organization known as PERTIS (*Persatuan Orang-orang Cacat Penglihatan Islam Malaysia*) or the Association of the Visually Challenged Muslims of Malaysia. The Quran uses Grade 1 Arabic Braille code as its basis together with the relevant vocalization and diacritical marks.

However, due to its dependence on the conventional method of Arabic orthography or the *rasm al-imla'i*, the PERTIS Quran has a number of inconsistencies and mistakes, especially in the orthographical aspect of writing the Quran. From a number of studies undertaken (Kamel et al., 2008; Zakaria, 2008), there is a need for a credible model of Quranic orthography in Braille. The principles and

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methods of the Uthmanic model serves, for the majority of the Muslims as an indispensable basis of the Quranic orthography (Al-Dabba', 1999). Yet, in the case of the Quran in Braille in particular, the existing studies are more focused on adapting the text of the Quran in Braille using latest technology such as developing a Braille panel and teaching aid for reading and learning the Quran in Braille (Mad Saad et al., 2010; Razaly et al., 2010; Khoni et al., 2010). These studies are conducted from the perspectives of mathematics and engineering, which are necessary for the development of the device and software intended, yet lack the analytical aspect of the Quranic orthography that forms an essential part of the Quran itself.

Similarly, the attempts made by Abualkishik & Omar (2013; 2009) to formulate and translate the verses of the Quran together with its rules of *tajwid* into Braille using computer are solely done based on the computer science perspective and do not properly consider the orthographical principles of writing the Quran. On the contrary, in the case of the Quran in particular, the first and foremost importance is in its correct rules of orthography as it implicates on the verity and correctness of its reading. Thus, any attempt to sideline this vital aspect in writing the Quran will lead to an end result that might be technologically advanced and sophisticated, but might not necessarily conform to the correct rules of Quranic orthography as has been agreed upon by the Muslim scholars across generations.

Therefore, this paper aims to analyze the concept and principles of *Rasm Uthmani* and propose a model of Quranic orthography based on its principles and methods. This exploratory study focuses on the chapter of Maryam as its sample and applies the qualitative methods of textual and comparative analysis on the revelational criteria of Quranic orthography and the limitations of the Braille writing system.

Writing the Quran in Braille: Current Practice

The Braille writing system is made up of embossed dots in a cell of 3 x 2 configuration, that is three dots arranged vertically and two dots horizontally. Each dot in a Braille cell is numbered based on its position from 1 for the top most dot at the left column to 6 for the lowest dot at the right column. This six-dot Braille system is the most widespread and popular for many countries, though some have also introduced the use of the eight-dot Braille for certain functions. The embossed single dot or a combination of dots in a Braille cell represents a letter, word, number or other meanings as determined by the rules of its use in any particular language. Braille is written and read from left to right. This principle is adhered to by all languages and in all of its usage including Arabic and also for the Quran. So far, all Qurans in Braille produced by the Muslim countries also follow this convention and do not raise any issue on it (Mustaqim, 2013).

In a six-dot Braille system, a total of 63 combinations of dots can be made for specific use. If compared with ordinary writing system that offers almost endless possibility of creating and adapting new writing symbols, the Braille system is very limited. Thus, introduction of new and complicated symbols in Braille can only be done through the use of contraction and combination of the existing Braille cells. Nonetheless, the use of contraction and its effectiveness in increasing reading fluency is closely related with the cognitive and capability aspects of the user and need to be taken into consideration in the formulation of any particular rule of Braille use (Simon & Huertas, 1998; Hampshire, 1981).

All Muslim countries have produced the Quran in Braille using Grade 1 Arabic Braille code. This means that every alphabet of the Arabic letters is given its corresponding single cell representation in Braille. Most of the letters match the English equivalent of the alphabets,

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with the exception of a few, to facilitate the learning of different languages among the Braille users. For examples, dot 1 in Arabic signifies the letter "*alif*" and in English the alphabet "a". Similarly, dots 1 2 signifies the letter "*ba*" in Arabic and the alphabet "b" in English. A total of 37 letters of the Arabic alphabet and its related writing forms are accepted as standard throughout the world and used for writing the Quran and other languages that employ the Arabic letters as its basis such as Arabic, Malay *Jawi* and others. In addition, other vocalization and basic reading symbols are also given as demonstrated in Table 1.

Table 1: Vocalization and Reading Symbols in Grade 1 Arabic Braille

No.	Vocalization Symbol	Symbol in Braille
1	*Fathah*	Dot 2
2	*Kasrah*	Dots 1 5
3	*Dammah*	Dots 1 3 6
4	*Shiddah*	Dot 6
5	*Fathatayn*	Dots 2 3
6	*Kasratayn*	Dots 3 5
7	*Dammatayn*	Dots 2 6
8	*Sukun*	Dots 2 5

Using Grade 1 Arabic Braille, a word in the Quran is constructed and written in verbatim following its original construct. The single cell of each letter is arranged together with its vocalization and reading signs at the same line to constitute a word. In general, vocalization mark is written after the letter it represents except for *shiddah*, which must be placed before the letter. In addition, there are many more rules and regulations applied in the spelling and writing of the Quranic words in Braille (Mustaqim, 2013).

Nonetheless, current editions of the Quran in Braille do not employ the Uthmanic model of orthography (*rasm Uthmani*); rather the spelling method is largely based on the conventional method of spelling Arabic words (*rasm al-imla'i*). For most of the Muslims, the permissibility of writing the Quran in Braille according to the method of *rasm al-imla'i* is usually backed up by relevant fatwas issued by their respective countries. Necessity and the limitation of Braille are usually stated as the main reasons for the permission. Even the closest attempts to write the Quran in Braille based on the Uthmanic model as undertaken in Saudi Arabia and Indonesia are not fully compliant to the rules and methods of *rasm Uthmani*.

As a result, there are differences in terms of writing the Quranic words and its method of vocalization amongst the various editions of the Quran in Braille. In addition, there is also the issue of the editions of the Quran used as a document of standing between *al-Quran al-Majid* and *al-Quran al-Karim*. Although the words and verses are the same in these two editions of the Quran, there are considerable differences between them in terms of the signs (*dabt*) used such as the *waqf* signs, division of the Quranic verses into parts (*juz'*) and so on.

In the case of Malaysia in particular, the production of the Quran in Braille by PERTIS is done almost exclusively by the visually challenged members of this association. Despite their relentless efforts and noble intention, they did not have the required expertise in the field of Quranic studies, particularly its orthography. Thus, mistakes and inconsistencies are bound to occur now and then throughout the Quran they produced.

In this regard, there are at least 17 orthographical mistakes that have been found and corrected in the Quran published by PERTIS. The revision done by the Department of Islamic Development Malaysia (JAKIM) on the Quran prior to its publication in the 1990s was limited only to the reading aspect of the Quran due to the shortage of expertise on Braille that they faced. As such, mistakes and inconsistencies in writing and spelling still remain in the published text of the Quran text even after its revision such as the methods of writing *hamzah*, *alif saghirah*, and others.

A review conducted randomly on a number

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of Quranic Braille published by various organizations in Malaysia has also indicated the existence of orthographical mistakes and inconsistencies in writing the Quranic verses (Table 2).

Table 2: Summary of the Types of Mistakes in the Qurans in Braille Published in Malaysia

No.	Type of Mistake	Category
1	Spelling error	Orthography
2	Incorrect reading sign	Orthography
3	Separating one word into two different lines	Formatting
4	Inconsistency in spelling Quranic words	Orthography
5	Inconsistency in employing *waqf* and other reading signs	Orthography

These mistakes are not only misleading to the reader, but also affect the integrity and coherence of the Quran as a whole. In solving these problems, it is, therefore, important to revert back to the more consistent and proven method of Quranic orthography based on the Uthmanic model as is widely practised and implemented in the writing and publication of the ordinary Quran.

Rasm Uthmani: Its Importance and Role in Quranic Orthography

Rasm Uthmani or *istilahi* is the specific orthographical method employed in writing the letters and words of the Quran. It was the method used by the Companions to write and copy the Quran with the instructions from the Prophet (pbuh). Most of its orthographical methods are consistent with the conventional Arabic method of spelling, yet there are also some significant differences (Salim Muhaisin, 1994).

It is known as the "Uthmanic" model not because Uthman ibn Affan r.a. invented it, rather as an acknowledgement to his effort on employing this method in resolving conflict and standardizing the writing of the Quran from its copy made by Abu Bakr r.a. during his reign. Thus, the Quran he compiled has since been known as *Mashaf Uthmani* and the method he used is popularly attributed to as *Rasm Uthmani* (Al-Zarkashi, n.d.).

Most of the Muslim scholars hold the opinion that *Rasm Uthmani*, which originated from the Prophet (pbuh), is *tawqifi*, meaning that it is based on the revelation (*wahy*) and is not susceptible to changes and modifications. However, some other scholars are of the opinion that it is *tawfiqi*, which is based on the opinions of the Companions of the Prophet SAW and can be changed accordingly. The impact of the differences on its status is translated into the issue of the permissibility of writing the Quran using the methods other than *Rasm Uthmani*. For the former, the writing of the Quran must only be based on *Rasm Uthmani* as it was the method revealed by Allah SWT similar to the arrangement of the verses and chapters in the Quran. On the other hand, the latter views that as long as the method of writing the Quran is based on opinion, it is open for anyone to copy the Quran using whichever method available to him for the benefits of the people (Al-Dabba', 1999).

In this regard, it is important to note that despite the emphasis given on complying with *Rasm Uthmani* in writing the Quran by most scholars, exception is usually given to its writing in Braille for the visually challenged due to necessity. A number of fatwas issued by countries such as Saudi Arabia, Egypt, Indonesia and others clearly explicate this (Noornajihan et al., 2012).

However, in his study, Al-Khamis (2003) has discussed this issue from various aspects and opinions of scholars. He suggested that whenever possible, it is better to adhere to *Rasm Uthmani* even when writing the Quran in Braille to ensure the verity of the verses and its consistency from mistakes and errors. In reflecting this to the situation in Malaysia, applying the methods and principles of *Rasm Uthmani* in writing the Quran in Braille is, therefore, a practical solution in addressing the issues of inconsistency and verity of the Quranic

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verses found in the Qurans published in Braille.

In general, the Uthmanic model of Quranic orthography is based on the six principles as follows: *al-hazf* (omission of letters); *al-ziyadah* (addition of letters); *al-ibdal* (substitution of letters); *al-hamz* (the methods of writing the letter *hamzah*); *al-fasl wa al-wasl* (connection of letters and its separation); and *ma fih qira'atan mutawatiran wa kutiba 'ala ihdahuma* (a word that can be read with two variant readings but is written according to one of its reading form) (KKDN, 2007). The details of each of these principles have been discussed by various scholars such as Al-Dani (1978), Al-Dabba' (1999), Abu Daud (2000), and others, and served as the orthographical basis of the Uthmanic Model.

On the other hand, with regard to the aspect of the Quranic signs (*dabt*) such as the reading and *waqf* signs, Muslim scholars agree that it is based on opinions and efforts done by the scholars to facilitate the reading of the Quran and make it more accessible to the people (Ismail, 2001). During the early period of Islam, the Quran was written devoid of its vocalization and diacritic marks. Yet, to make it more accessible to the ordinary people and especially the non-Arab Muslims, efforts were made to introduce the symbols for vocalization and diacritical marks to assist in reading the Quran correctly. In addition, other related symbols are also applied in marking the Quran such as the signs for *madd*, *alif ziyadah*, *ishmam*, *waqf*, numbering of the Quranic verses, division of the verses into *juz'*, *hizb* and others (Al-Tanasi, 1999).

Uthmanic Model of Quranic Orthography in Braille: A Proposal

In an attempt to solve the current issues concerning the writing of the Quran in Braille in Malaysia, a Quranic orthographical model based on *Rasm Uthmani* is believed to be the appropriate alternative to the existing practice. It will not only provide the existing Quran written in Braille with an authoritative basis, but also the credibility in ensuring the verity and consistency of writing the Quranic verses. Undoubtedly, to build a complete model of the Quranic orthography based on *Rasm Uthmani* requires the involvement of all the verses and chapters of the Quran as a whole. However, in this limited and exploratory study, only a chapter of the Quran, which is the chapter of Maryam, is selected as sample for analysis. It is one of the chapters under the category of the *Makkiyyah* (Meccan) verses, and is located at the 16th part (*juz'*) of the Quran. Among the criteria of its selection are as follows: (1) The length of the chapter (98 verses) is suitable with the context and limitation of the study; (2) It has a balanced composition of short and long verses; (3) There are many mistakes found in most of the Quran in Braille published in Malaysia concerning the transcription of this chapter; (4) The chapter begins with *al-ahruf al-muqatta'ah* (a combination of single Arabic letters), which is transcribed in various methods by different editions of the Qurans published in Braille; and (5) The chapter contains many of the six principles of the Uthmanic model of Quranic orthography.

The Quran used as reference in this study is the edition published by the King Fahd Complex for the Printing of the Holy Quran in Madinah. It is based on the variant reading of Hafs from 'Asim all the way to the Prophet (pbuh).

Based on the analysis, a preliminary Uthmanic model of Quranic orthography in Braille is then formulated and proposed (Mustaqim *et al*., 2013). Its main principles can be summarized as follows: (1)The spelling of the Quranic words must conform to the six principles of *Rasm Uthmani* except in the specific conditions as specified; (2) The words that are written according to the principle of *ibdal alif ila waw* (substituting the letter *alif* with *waw*) such as (الصلوة، النجوة، ومنوة) should be spelt according to the conventional Arabic spelling method to avoid confusion; (3) The word Allah in the Quran is spelt with *fathah*. The letter *alif saghirah* is only applied to certain words in

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the Quran; (4) Vocalization marks together with the letters *alif saghirah*, *ya saghirah* and *waw saghirah* are employed according to its spelling in the Uthmanic Quran; (5) *Madd Asli* letters are marked without the use of the sign of *sukun*. The letter *alif* after *waw jam'* should also be written; (6) The use of dots 3 6 between *al-ahruf al-muqatta'ah* is maintained to ensure the correct reading of the words; (7) The *fathah* sign for the letter *alif madd* (dots 3 4 5) is not employed in a word; (8) Three *hamzah* letters that occur in a word consecutively are spelt with its appropriate form, i.e. *hamzah* (dot 3), followed by *fathah* (dot 2), and *alif* (dot 1); (9) The sign *alif hamzah* (dots 3 4) is used for situations of *fathah* and *dammah*, whereas the sign *alif hamzah* (dots 4 6) is used only for the situation of *kasrah*; (10)The sign of *fathatayn* in words such as (عليما) should be placed after the letter *mim* and followed by *alif* following the practice of the Eastern people (*Mashariqah*) on the matter; (11) The letter *lam-alif* is not given its diacritic mark of *fathah*. However, the appropriate *tanwin* sign must be assigned to it as needed; (12) The letter *nun ziyadah* such as in verse 61, chapter of Maryam should not appear in writing following the practice of the ordinary Uthmanic Quran; (13) The use of the *tajwid* signs in the Quran are not applied. Only existing signs in the Quran published in Braille are used to minimise introduction of new signs and facilitate the fluency of its reading; (14) There are no specific reading signs for *tashil*, *imalah*, *ishmam* or *rawm* in the Quran. Only the signs for *saktah* (dots 2 3 4 + 1 3 + 2 3 4 5 + 1 6) and *sujud al-tilawah* (dots 2 3 4 + 2 4 5 + 1 4 5 + 1 6) are specified in the relevant contexts; and (15) Only six *waqf* signs employed in the current Uthmanic Quran are used (Table 3). The use of these and other signs in the middle of the Quranic verse must be preceded by dots 3 6 to differentiate between the sign and the verse of the Quran.

Table 3: Proposed *Waqf* Signs Based on the Uthmanic Quran

No.	*Waqf* Sign	Symbols in Braille
1	(م) *Waqf Lazim*. Must stop reading	Dots 1 3 4
2	(ج) *Waqf Ja'iz*. Can stop or continue reading	Dots 2 4 5
3	(لا) *Waqf Mamnu'*. Must not stop reading	Dots 1 2 3 6
4	(صلى) *Wasl Awla*. Better to continue reading	Dots 1 2 3 4 6 + 1 2 3 + 1 3 5
5	(قلى) *Waqf Awla*. Better to stop reading	Dots 1 2 3 4 5 + 1 2 3 + 1 3 5
6	(∴ ∴) *Ta'anuq al-Waqf*. Must stop at either one of these signs	Dots 2 3 5

Conclusion

Based on the preceding discussion, the need and necessity of applying the principles of *Rasm Uthmani* in the writing of the Quran in Braille has been succinctly demonstrated. This paper has also attempted to propose a model of Quranic orthography based on *Rasm Uthmani* for use in the writing of the Quran in Braille. However, at present, the proposed model is preliminary in nature and limited to the context of the chapter of Maryam. Nonetheless, efforts are currently underway to propose this model as the basis for the development of a national standard of Quranic orthography in Braille with the relevant authorities in cooperation with the visually challenged organizations in Malaysia.

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