A REVIEW OF THE BUILT-ENVIRONMENT ATTRIBUTES FOR QUR’ANIC MEMORIZATION PROCESS

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ABSTRACT
A conducive learning environment not only could promote positive learning behavior and improve students’ well-being, but also reinforce the better learning process and institutional objectives. The purpose of this study is to investigate activity patterns of Quran memorization and Quranic studies through analysis of 22 major local Tahfiz centers. This article highlights on method and findings of a significant parameter in designing a learning environment for the Tahfiz students. It reviews the multitude of perspectives on Tahfiz ecosystem that has influence on the Tahfiz center operation, the memorization method, behavior and other requirements in the education of a Hafiz. The paper concludes with significant key findings based on the reviews and connection to the existing theories from the mainstream educational research for the guidance of further investigation.

Keywords: Tahfiz ecosystem, Al Quran memorization, built-environment factors, Hafiz.

INTRODUCTION
The physical of educational environment plays a vital role in shaping its learning activity, behavior that occurs within it, influence the quality of perceived information and performance. Visible stimulation from the environment can make the sensory open for learning (Weiten in Sang; 2008). The information eventually becomes a short-term or long-term memory (Dzulkifli et al., 2014) which is essential in Quran retention. In Tahfiz centers, memorization is the learning style that has been used since the early revelation period of Quran. Tahfiz is referred as a group of students known as Al Huffaz, intended to master the Al-Quran by understanding the language and its meaning, learning with specific techniques of reading the content and memorizing the whole Quran. Huffaz etymologically comes from the Arabic word Hifz, means protector (Dzulkifli, M. A, et al., 2014). Therefore, memorization Quran is a novel act and is considered as an unusual practice due to its voluminous amount of material and preserve the Quran text ‘as it is.’

Consequently, with rapid development and an increase of understanding the importance of Islamic education toward achieving human values, there is an increasing demand to education stream among many Muslim parents as an option in education (Yaacob et al., 2014). However, there are issues in this education stream that has become a highlight nationwide in the recent years; the inadequate physical condition according to the standard requirement for the educational institution and the nonstandard systems that contribute to the quality of the students (Hashim, Azmil & Misnan Jemali, 2015). Two pivotal questions emerge from this situation: What is the
built-environment factor that needs to be inculcating to support the Quran memorization environment? Is there any existing learning theory that emphasized environmental factor influence to learning that is suitable to Tahfiz educational system and practice?

There are numbers of Islamic researches that highlighted the environmental factor has an inconsequential impact on the Islamic education for no specific reasons. On the other hand, numbers past research related to the primary education stream have found that the environment is significantly essential and correlated with human performance and well-being. Stimulation from the environment could cause to positive or negative influence saliently. For example, studies on colour has postulated that a blue environment increases attention level (Stone; Stone & English, 1998; Kuller, 2009), green has rejuvenating effect for sustainable period (Nurlelawati et al., 2010) while white colour, which is used in many buildings, is found to cause more errors in performance and depression known as Dysphoria (Kwallek et al., 2007). It seems there is a vast gap looking between the two streams that could answer the sparse in the existing knowledge related to environmental studies in the Islamic education. To minimize the gap, this study intended to identify the physical environmental factors for a conducive learning space for Quran memorization activity based on the Tahfiz ecosystem found in the past research.

**DISCUSSION OF RELATED RESEARCH**

There are numbers of studies regarding Al Quran education in the country found conducted in 1980 (Hamid, 2017) until the present. Comparing to mainstream educational research, it can be seen that more investigation on Islamic education in Malaysia started from the year of 2000 onwards, indicating an increase of awareness on the importance of Islamic education among the public. Based on the literature review, this paper managed to summarize 22 findings of Malaysian researches regarding Islamic education that focus on Quran learning and memorization from various field. From the numbers, factors that influence memorization was studied for better understanding the existing system as well of the changes, the impact on the performance and the unforeseen factor that could be the gap.

<table>
<thead>
<tr>
<th>Author</th>
<th>Type of Context</th>
<th>Research Area</th>
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<tbody>
<tr>
<td>1. Nor Muslina, M. &amp; Mokmin, B. (2014)</td>
<td>KUIS</td>
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Based on the table above, more than half of past research focused on the techniques of Quran memorization which also indicates the type of the education system adapted with mostly from the perception views. It shows a research gap in many areas especially regarding students’ performance from learning environment perspective, which shows only two research found above. Even so, both studies are limited to facilities management of specific Tahfiz institution with one of them highlighted that the learning environment is not an important factor to be considered with low Critical Success Factor (CSF). With the figures, it is shown that students’ learning environment is perceived as an insignificant influence, which is contrary to many findings related to performance and environment in the mainstream of educational research. From the analysis, there are two categories of variables dominantly featured by previous studies; the Quran memorization practice and the factors that influence students’ performance. With limited research available to see the correlation of learning environment impact on students’ performance, therefore, the physical factors could be identified through students’ learning characteristic in response to the environment as discussed below.

QURAN MEMORIZATION - UNDERSTANDING THE PRACTICE FROM THE BUILT-ENVIRONMENT PERSPECTIVE

In formulating Tahfiz learning environment specifically for Quran memorization purposes, like designing other spaces, one needs to understand the demographic structure of the place, the user needs during the occupancy and able to predict future needs (Kubba (2003). To achieve that, understanding the learning activity (Quran memorization) will explain the whole structure specifically from the user behavior of both students and the teacher, space organization and operation, functions of every element and the existing condition as well as its context. According to
al-Dakhil (2008) in Zulkiple, Adnan Mohamed and Muhammad Hafiz (2013), there are 3 (three) main steps in Al-Quran memorization that was first introduced by the Prophet, used during the first revelation. The steps are; Sima’ which is listening with full attention, followed by Tikrar, repetition of the verses, and ‘Ardh, reciting the memorized verses. Later, the method was improvised by the Prophet with writing the verses during the memorization process. More promising approaches were introduced by his companions such as inducing Targhib, which is inspirtiing good rewards to the learners, learning Tafsir to understanding the meaning of all verses, small group approach, establishing Al-Quran as a formal education with a systematic curriculum and building a proper institution for learning and memorizing Al-Quran. All of the approaches are used presently in all Tahfiz institution. The approaches are different from other learning methods such as open and active learning method. From the reviews, half of the research highlighted continuous rehearsal (Takrar) in reciting the memorized verses conducted individually. Factors like motivation, goal-oriented, and persistence have been found to influence students' focus and believed contribute to better achievement (Azmil Hashim & Jemali, 2015; Dzulkifli et al., 2014; Fauzan & Mohamad, 2017; Yusuf, M., 2010).

The memorization system

There are three memorization techniques known namely, Deobandi method, Panipati method and Turkey method (Zulkiple, A.G, Adnan Mohamed Yusoff & Muhammad Hafiz, S. (2013). Every system has its technique to memorize the Quran verses according to specific sequential for effective retention and faster completion. The Huffaz should have three qualities namely Tilawa – learning by heart, Hafizi – ability to memorize and Darasi – ability to write the whole verses, in order to successfully to complete memorizing the whole Quran within the target time (Nor Muslina & Mokmin Basri, 2014). Consequently, there are other requirements which are said to influence the memorization process such as adab (etiquette) during and outside learning period which is believed influences their performance. In memorizing the text, according to Ariffin, S. et al., (2013) and Ustaz Hanafi (personal communication, November 9, 2017), new memorization known as Sabak is done in the morning session. Para Sabak is referring to weekly memorization is done in the morning and evening, and Ammokhtar is referring to memorization of more than one juzk. The final stage is known as Halaqah Dauri, where students who managed to memorize the whole Quran will be tested according to specific assessment criterion. From the phases and practices involved, to ensure better memorization performance, they need to be highly motivated, goal-oriented, persistence and ability to endure a strict requirement at all time. Hence, the environment should be encouraging a more prolonged engagement in the activity. Factors like the use of an appropriate amount of lighting, color(s) that has no or minimal adverse effect and good air quality are vital. In term of space design, the activity required personal space, semi-public and public spaces that could provide activities like the assessment, practice with peers and individual memorization activity at the same time. Additionally, these spaces can be obtained from the sitting arrangement and furniture that is designed for the purpose.
The time of study
Every Tahfiz institution has a tight schedule and its timing system for all students to comply daily. It is to maximize the day with activities such as memorization Al Quran, slots for learning other subjects, praying and wirid, self-management including eating, sleep and cleaning, socializing, and outdoor tasks. According to Yusri & Muhammad Toriq (2016), there are 5 recommended time for Quran memorization which are; early or before Subhu (morning Prayer time for Muslim), after Subhu until sunrise before noon, after napping, after pray and between Maghrib (evening prayer time for Muslim) and Isya’ (second evening prayer time for Muslim). The periods are most preferred time to do the memorization tasks due to calmness moment and fresh feeling in the morning time, readiness in mentally after napping at noon, and physically as well as mentally prepared after evening break for rejuvenation. However, not all of the memorization activity happens in the class. There are institutions like Darul Quran that practices distributed learning approach where the actual learning (memorization Quran) took place outside the classroom. Based on the routine behavior shaped by the system, the environment should be accommodating for both day and night time with sufficient amount of lighting especially in early morning and night time to avoid fatigue. The routine is also suggesting that the environment should provide elements that could rejuvenate their senses such cool colors for areas that require concentration while vibrant color for low tasks, and materials that positively influence mood and emotions. For example, wood has positive effects on mood and emotions, which are essential for a longer time of engagement. The element such as outdoor scenery and adjacency of window or opening to the activity location is said could influence positive performance for a longer duration.

Space and behaviour
In many Tahfiz institutions, the design space for the Huffaz to memorize Quran is not critically emphasized. A large space or a hall is mostly preferred by the institution that is operating using the residential building, shop lot, surau or masjid, for the purpose. The place is usually with less furniture, minimally designed and therefore provide less attachment. Generally, there are two types of conduct in the Tahfiz institutions. First is the one that upholds the traditional approach in teaching and secondly, the institution with conventional learning and teaching setting which is overseen by the Jabatan Agama Islam Malaysia (JAKIM). In the traditional approach, a group of students sits cross-legged in a circle (Ab Rahman, Ahmad, & Ab Rahman, 2015) facing to the teacher, known as Ustaz (male) or Ustazah (women), or in ‘U’ shape position (Figure 1). In this position, the teacher could see and monitor the students to ensure they are fully focused on the task. Consequently, the student will come forward to the Ustaz or Ustazah to check their daily achievement by reciting the memorized verses, according to the individual ability. In many cases, students with memorization issue or misbehave will get more attention and therefore sit in front of the class, closer to the teacher (Ustaz Hanafi, personal communication, November 9, 2017). Students in the conventional Tahfiz institutions, on the other hand, use proper furniture in the class. The setting can be seen in the institution like in Darul Quran, state Tahfiz schools or institution that offers integration in the curriculum. Regardless of the type, class size or sitting, a similar class order is found which indicating a linear learning approach, accept during the evaluation session. In term of ownership aspect for traditional practice institution, the students have less opportunity to personalize the space since it is a communal area and therefore, create less or no space engagement. However, the space provides full flexibility as no object or furniture obstruction that is suitable for learning that involves cross-pollination of activity and communication.
Factors Influence in Memorization

According to Yusuf, M. (2010), six principles are interrelated and influences the effectiveness in Quran memorization his study namely, determination and persistence; understanding content or data; selection; memory capacity; emotional stability; and place and time (Figure 1). It is found that these six principles in a way explain the same memorization factors highlighted by other researchers but in a different term. For example, determination and persistence are described as a commitment in Azmil Hashim & Jemali (2015), self-discipline and goal-oriented in Dzulkifli, et al., (2014), students’ characteristic and inner factor in Jamaluddin & Nordin (2016). Content or data and selection are described as learning strategy (Jamaluddin & Nordin, 2016). Emotional stability is another factor found is always corresponding to high motivation in most of performance related researches in Table 1.

Consequently, among the six factors, half of them are very much influenced by the environment, namely emotion stability, determination and persistence, and place and time factor. Another research by Jamaluddin and Nordin (2016), has more comprehensive points pondered although much of the factors are not sufficiently elaborated. The points that are highlighted are; the importance of demographic factor which consists of gender and location influencing students' performance, stimulation for rehearsal, physiological responses based on the gender perspective and psychological aspect in the point of motivation. In very reason, stimulation should be well defined in multitude ways such as the environment, as it involves visual system. The same point for physiological aspect where every physical change due to stimulus responses from the environment and from the learning activity itself, is essentially to study in order to understand students' characteristic physiologically. Based on the review, it is plausible that emotional stability is an essential factor that needs to be controlled to ensure the memorization is smoothly and successfully conducted every day. They must be in a suitable place and at the appropriate timing to achieve emotional stability before they begin the memorizing task. With consideration of the environmental factor, it is possible for the student to perform better and improve their memory capacity as all of
the processes are interrelated. According to Pally et al. (2001) and Bradley & Lang (2007) emotion coordinates by perceptions, thoughts, memories, physiology, behavior and social interactions as optimum ways to cope with the situation.

In learning existing theory, there are numerous models rendered to the Western learning pedagogy such as Cognitivist, Behaviorist, Humanist, and Socialist. Indeed, the application of this Western ideology in Islamic education is conditional upon the suitability of that particular ideology to the Islamic principles and in this context, Islamic educational practice. Subsequently, they are different concerning the principles source of the ideology where all are based on rationality, custom, scholar precedent, morality, and religion. However, ignoring these ideologies is like ignoring the wealth of relevant and vital information since the theories have successfully change the whole structure of traditional learning pedagogy to a more dynamic form globally. Therefore, adapting any relevant practice for the purpose is essential to increase the quality of the institution holistically. Among many theories, Boud’s self-regulated learning model in Ertmer & Newby (1996) has the right points in explaining the relation of Tahfiz learning pattern to its environment (Figure 2). The self-regulated learner in this context is referring to the student who is capable of regulating their strategies in acquire the knowledge (Quran memorization) and to optimize academic performance through reflective thinking and actions. Drawing from the six principles earlier (Figure 3) describing Boud’s model through the reflection of memory capacity (self-ability), memorization system (task requirement & prior knowledge), motivation, and environmental influence, students can regulate effective learning pattern. The perimeters identified for Quran memorization is explained in Figure 3.

**Fig.2:** Boud’s self-regulated learning model explains the relation of environmental factor
Analysis and Discussion
Overall, very few literatures discussed on the physical aspect of Tahfiz center built environment was found; therefore, co-relation between factors influencing Quran memorization and physical built environment were generated by identifying the needs and requirements base on the Tahfiz ecosystem. Triangulations between three aspects were generated; the Quran memorization theories and practice, learning theory from the mainstream educational systems and physical environment context that should be considered in encapsulating built-environment in Tahfiz center as in Table 2.

Table 2: Summary analysis of the built-environment factor from the review

<table>
<thead>
<tr>
<th>No.</th>
<th>Theories from local research on Quran Memorization</th>
<th>Environmental Factor from Boud’s Self-regulated Learning Model</th>
<th>Space Comfort Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1. The Quran Memorization System</td>
<td>1. Personal space – for individual memorization</td>
<td>1. Lighting - Task lighting with white cool or daylight effect.</td>
</tr>
<tr>
<td></td>
<td>3. Assessments</td>
<td></td>
<td>4. Condensation – More openings (UBBL)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. Cool colour(s) scheme</td>
<td>5. Thermal Comfort – More opening &amp; mechanical ventilation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Warm colour(s) scheme</td>
<td>points</td>
</tr>
</tbody>
</table>
The Quran times of Study
1. Early Subhu
2. After Subhu
3. After noon-nap
4. After pray
5. Between Maghrib and Isya

<table>
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<tr>
<th>Space and behavior related to Quran memorizing</th>
<th>Flexible space planning for privacy &amp; semi-public usage</th>
<th>Cool colour(s) scheme</th>
<th>Flexible furniture setting for private and semi-public usage.</th>
</tr>
</thead>
</table>

CONCLUSION AND RECOMMENDATION FOR FURTHER RESEARCH
This study has identified the Tahfiz learning pattern and its curriculum as well as its relations towards built environments from previous researches. It is significant for any Tahfiz institution to consider students’ learning pattern as much as the quality of its curriculum as a way to induce positive emotion along the whole memorization process for better performance. It is because, the built-environment factor as found in this study in considering a comprehensive inclusion from aspects of psychosocial, educational system and physical needs that are necessary for creating an ideal learning environment, based on the students’ learning pattern itself. The same effort has been critically emphasized during his companions’ era, where environment factor has been considered with setting for small group students for better learning performance. Therefore, neglecting the importance of these factors is like underestimating the effort has that has been done especially by his companions. Imam Shafi has described that a quality Huffaz is a person who not only could memorize the whole Quran but could access the knowledge at all times. The importance to preserve the Al Quran is stated clearly in Surah Al-Ankabut, verse 49;

“Nay, but it is clear Ayat, (preserved) in the breasts of those who have been given knowledge. And none but the wrongdoers deny Our Ayat.”

Therefore, any act to foster the effort is vital to improve the quality of the institutions and simultaneously the educational system. Additionally, Tahfiz education is seen as one of the ways to produce Khairah Ummah or generation that is balanced in its religious and secular knowledge development.

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