EXPERIENTIAL QUR'ANIC LEARNINGS: ENRICHING HAFAZAN BY EXPLORING MULTITUDE OF ENVIRONMENTAL BASED RESPONSES

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ABSTRACT

This paper explored the indicators taken into consideration to identify the preferable learning environment by *tahfiz* students. There are two objectives to this study: (i) to determine the ideal environment for *hafazan* (Qur'an memorisation) task by gender within 10 consecutive days through performance, perception and preferences; and (ii) to identify the students' emotional justification for the preference and perception towards the settings by gender. A mixed-method approach containing qualitative and quantitative method was applied on 24 *tahfiz* students who were randomly selected as the sample and assigned into 5 different settings for 10 consecutive days of the experiment. The settings reflect the students' most common learning environment and learning style identified from the earlier conducted survey. The result found various patterns of settings nomination between genders. The green wall setting (GW) and face-to-face (FTF) positively influenced both male and female students in both perception and performance, directly and indirectly. Several key points that justified their preference and perceptions explained the emotional opinion shed some light on the dissonant patterns. Experiential learning with consideration of a multitude of responses is an essential indicator to understand the environmental influence in the memorisation of the Qur'an and in identifying an ideal criterion in *tahfiz* learning environment design. The paper concludes by outlining improvements for further investigation.

Keywords: *Tahfiz* students, *hafazan* setting, setting preference, experiential Qur'anic learning

INTRODUCTION

Over the past years, experiential learning is used to explain the relationship between learning space and students as it focuses on students' experiences and continuing development of experience gained along the acquisition process. The concept is found in many areas of enquiries, such as in Hansen, (2012) to find innovative ideas in product capability, identifying criterion in designing experiential space in Cheers, Eng & Postle (2012) and landscaping design ideation in Hansen, (2012). The human experience and environment interaction are frequently shown in a multitude of responses such as self-expression in perception, emotions, preferences and performance. Other than that, patterns of behaviour and physiological responses also describe the human and environment interaction from observation. In a learning research by Kumi et al. (2012), they associated all of these bodily changes as affective experiences involving the positive and negative reactions, activated coping and mood management process. Both positive and negative experience tells us that the student is adapting or in a withdrawal state, also known as avoidance behaviour to the learning task as found in Elliot et al. (2009). As such, all of the responses are intertwined and are significant indicators in designing students' ecology. Given this, experiential learning is a useful insight in this study to define an optimal learning environment specifically for learning the Qur'an. Unlike many findings from the mainstream in education, most research findings of the Islamic education studies are limited to the comparative of technique in memorisation of the

Qur'an and the system of the education used in Tahfiz institutions. They do not focus on students' perspective as active participants in the learning process (Ab. Jalil et al., 2018). The abundant studies on the areas mentioned earlier indicate a gap that this study highlights towards experimenting with *tahfiz* students to get the idea to identify which condition and situation are suitable for the *hafazan* task. In this study, five types of settings were used: window facing setting, white wall finish setting, green wall finish setting, wooden wall finish setting, and face-to-face setting with two positions either sit on the chair or cross-legged sitting. The objectives of this study are as follows:

- To determine the ideal environment for Our'anic memorisation (*hafazan*) by gender within 10 consecutive days through performance, perception and preferences responses, and
- To identify the students' emotional justification to the preference and perception towards the settings by gender.

LITERATURE REVIEW

Social interaction plays a vital role in learning. The interaction may help students understand and assist them in organising their thoughts (Okita, 2012). Interaction among peers makes students learn more by exchanging their thought, being more enjoyable, and having the ability to avoid tiredness and boredom (Marks and Fraley, 2007). Both studies postulated that learning with others is more effective than learning individually. Although interaction helps students in learning, somehow, not all students have similarities in learning. In another study, Beckers et al. (2016) proposed that the learning space's privacy may help students concentrate more when studying individually. Private space means that students have their own space without any distraction or obstacles from peers. In terms of the type of study space, students studying in a public area are easily distracted and commonly have worse performance than students who have a personal space for studying (Gurung, 2005). It is clear that both conditions have their advantage and disadvantage to the students' learning experience and could be essentials to investigate further the influence of the Qur'anic education environment.

Impact of openings and lighting in learning

Windows is an essential opening for sufficient ventilation and brightness in all space types and provides connectivity between humans and nature outside. A good scenery gives a positive impact psychologically (Kaplan, 1987), has the healing power (Ulrich, 1991), encourages creativity among students (Lichtenfeld et a., 2012) and has restoration effects on students' minds (Russell and Ward, 1982; Ab. Jalil, 2016), which are significant for a better learning experience. Kennedy (2011) mentioned that the movement outside the window might distract the students, making them lose focus while learning. In terms of ventilation, windows can help generate fresh air flowing in, out and throughout the space and improve indoor air quality. Other than that, a light source is another significant interior element that influences the learning experience. Studies by Kuller et al. (2006) and Srivastava and Peel (1968) proved that a darker environment or having too much brightness could impair the mood. They postulated that space with just the right amount of brightness could induce a positive mood, suitable for productivity.

Impact of color stimulation on learning

Wall display is an equally important part of every classroom as it improves the learning atmosphere (Barrett et al., 2015) and stimulates visual senses (Ab. Jalil et al., 2012; Weiten in Mok Soon Sang; 2008). A boring classroom is uninviting and may impair the students' focus (Singh,

2014; Weiten in Mok Soon Sang; 2008). Since colour is the easiest and common visual stimulation element found in the environment, many prevalent findings regarding the colour effect on learning can be found. For example, bright wall finished, such as white, leads students fatigue due to its adverse effect (Kwallek et al., 1988; Ab. Jalil, 2016), and there have been suggestions to avoid using it for an environment that requires a very long period of exposure (Ab. Jalil, 2016). Grube (2014) shared the same point of view where a white wall finish is not suitable for a learning environment, as it can cause disturbing wall reflection and glare. Clarke and Costall (2008) highlighted that green, blue and violet are considered cool, comfortable, peaceful and calming, which may help reduce stress and anxiety. In a performance context, the rejuvenating effects of green colour induce alertness, which is essential for a better performance suitable for an extended period of learning (Ab. Jalil, 2016). On the contrary, Kwallek et al. (1988) found that the green wall colour also leads to an adverse effect where the relaxing and calming effects can undermine the given task, which affects the performance.

Perception and preference in learning performance

Students have their perceptions or expectation of the learning environment. The impression and experience before and during the academic years eventually influence their emotions and behaviour towards the environment they live in and learn. According to Russell and Ward (1982), students' performance is much affected when their expectation is violated since their sense of attachment that is highly dependent on their level of satisfaction (Khozei et al., 2012), which is essential for their survival in the long academic years (Ramachandran, 2011). Besides the related emotional responses, performance responses are regarded as another perspective to identify one's attachment state to the environment and engagement in the learning activity. However, a more explicit learning performance context is essential as assessing learning performance in various perspectives such as in creative achievement, IQ test, and evaluation of factors related to a task, motor works and productivity (Ab. Jalil, 2016).

METHODOLOGY

Primary data collection method

This study applied the mixed-method approach containing qualitative and quantitative methods. A questionnaire survey was the only primary data involved in this study with a set of a questionnaire designed in two parts, namely scoring and open-ended question methods. This study involved an experiment with 24 respondents. The respondents were selected based on a simple random sampling method. Fig. 1 illustrates the settings provided for the students during the 10 days' experiment. The students were assigned to a *hafazan* task at every setting type with two separate sitting styles, sitting on the chair with a table (CT) or cross-legged sitting (CL). The five setting types were window facing, white wall finish, green wall finish, wooden wall finish and face-to-face.

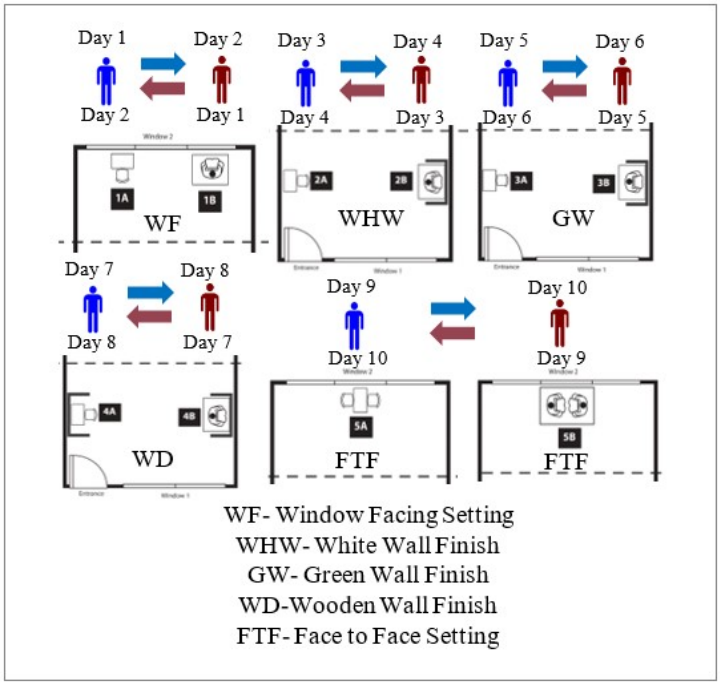

Fig. 1 Students' assignment to various settings during the 10 days of the experiment.

Before the experiment, students' perceptions were recorded to understand their expectations, which were believed to have been influenced by the adapted existing learning environment. In the experiment, all students had the chance to experience all setting types, and at the end of the experiment, the students had to state their most preferred setting based on the 10 days' experience, as shown in Fig. 2.

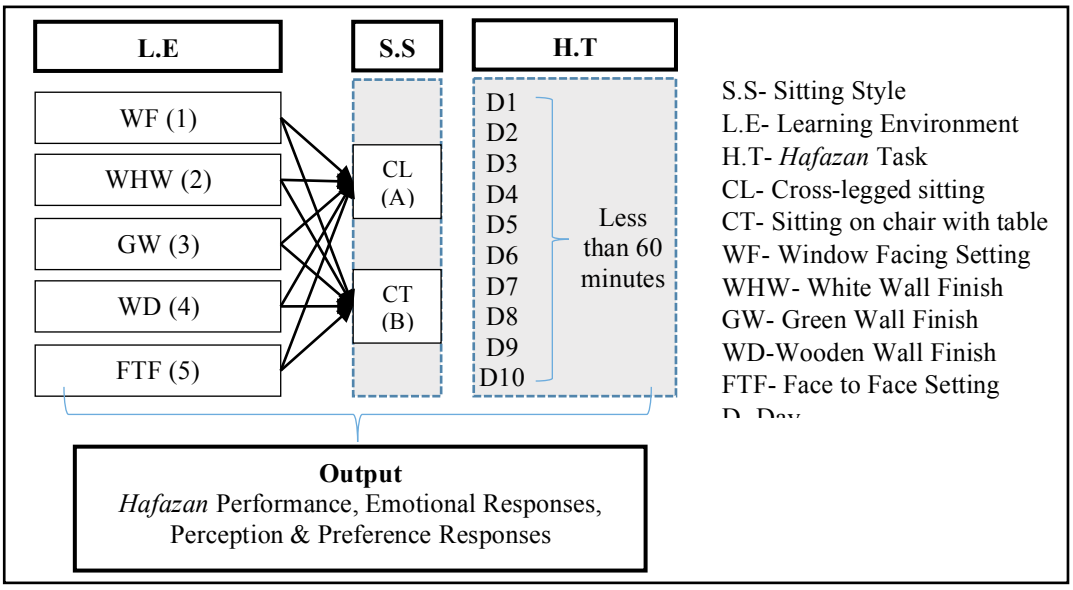

Fig. 2 Experiment and analysis diagram.

Identification of analytical method

In terms of the analytical method, descriptive analysis was used to describe the data. The data described the percentage of students' preference for the setting and position based on the 10 consecutive days of the learning experience and mean score for the performance analysis. The analytical method involved the Relative Importance Index (RII) to know the highest to the lowest for the perception responses. The formulae of RII, as shown in Fig. 3.

$$\text{RII} = \frac{\sum W}{A \times N}$$

W- Weightage
A- Higher respondents' integer
N- Total number of respondents

Fig. 3 RII formula used to analyse students' preferences in ranks.

RESULTS & DISCUSSIONS

Preference and performance by setting of male students for 10 days experiment

Table 1 Percentage of preferred setting by male students for 10 consecutive days**.**

	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10
Percentage (%)										
1A	33.3	16.7	33.3	30.0	45.5	20.0	40.0	40.0	22.2	30.0
1B	25.0	33.3	22.2	30.0	18.2	40.0	10.0	30.0	44.4	30.0
2A	0	0	0	10.0	0	0	10.0	0	0	0
2B	16.7	16.7	22.2	0	18.2	20.0	20.0	10.0	22.2	20.0
3A	0	8.3	11.1	10.0	0	0	0	0	0	0
3B	8.3	8.3	0	0	0	10.0	10.0	0	0	10.0
4A	8.3	8.3	11.1	20.0	9.1	0	10.0	10.0	11.1	10.0
4B	8.3	0	0	0	0	0	0	10.0	0	0
5A	0	8.3	0	0	0	0	0	0	0	0
5B	0	0	0	0	9.1	10.0	0	0	0	0

Table 1 indicates the preferred setting by male students from day 1 to day 10 of the experiment, and Fig. 4 shows the performance in mean score according to the settings and sitting styles. The results reveal that both patterns have a similar tendency. The patterns are apparent where most of the students prefer to be near the window (WF) while memorising the Qur'an, whereas the performance pattern is pointing to the white wall setting (WHW) and seconded by the green wall finish (GW) as the significant environments. In the detail of preferences responses, every day shows the highest percentage of male students to the window facing setting (WF) to do the *hafazan* task either at 1A (sitting on a chair) or 1B (sitting with legs crossed).

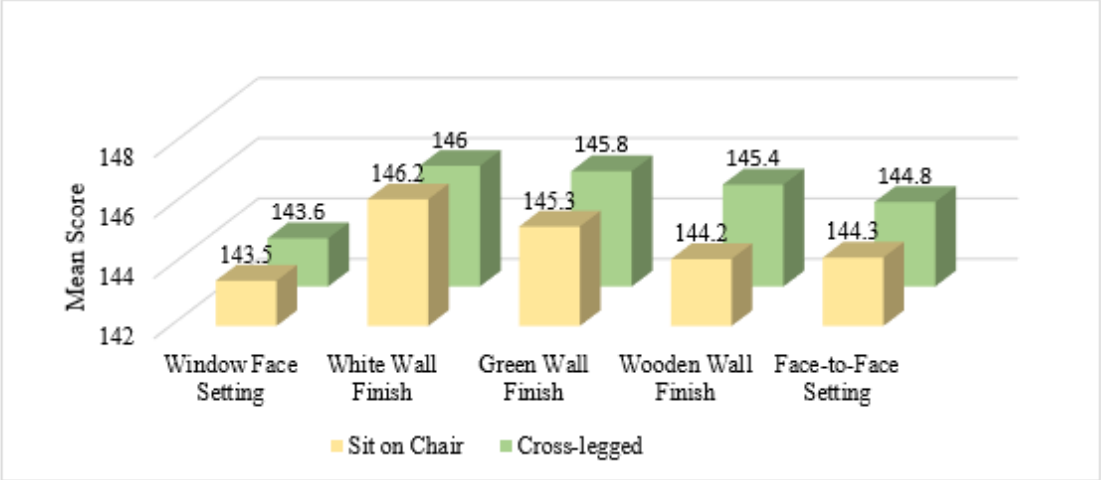

Fig. 4 Mean score of *hafazan* performance based on setting and sitting styles by male students

The respondents noticed that the setting perceived better brightness due to being situated near the window and having natural light. Moreover, according to male respondents, they claimed, "Setting 1A makes me more peaceful and perceived privacy" - Respondent S06, S09, S11 and S12. Additionally, according to respondents S06, S10 and S12, they stated that setting 1A has kept them awake (avoid sleepiness) since they had scenery to view and suggested "Condition of setting 1A would help students release their stress after going through the days doing the *hafazan*". Meanwhile, the perception of setting 1B was quite similar to the perception of setting 1A. Respondents S11 and S12 mentioned, "The setting is comfortable because I used to sit on the floor while having *hafazan* task and the condition of setting is peaceful facing nature".

Relative importance index toward the perception of male students on the settings provided

Table 2 Perception of setting in Relative Importance Index (RII) by male students.

	WF		WHW		GW		WD		FTF	
	RII	Rank	RII	Rank	RII	Rank	RII	Rank	RII	Rank
Comfortness On The Layout Arrangement	0.150	2	0.158	1	0.213	2	0.188	5	0.342	4
Position Comfortness	0.129	4	0.138	2	0.204	3	0.138	6	0.358	3
Perceived Wall Finishes	0.133	3	0.088	4	0.192	5	0.238	2	0.188	5
Perceived Brightness Setting	0.175	1	0.075	5	0.196	4	0.221	3	0.154	6
Perceived Privacy Setting	0.075	5	0.113	3	0.158	6	0.200	4	0.433	2
Condition Suitable For *Hafazan*	0.150	2	0.138	2	0.275	1	0.275	1	0.471	1

Table 2 represents the RII towards the perception of male students in the settings provided. The result indicated that the smaller value of RII, the lower the ranking. The result reveals that the highest rank for settings of green wall finish (GW), wooden finish (WD), and face-to-face (FTF) are suitable conditions for the *hafazan* task. According to respondent S01, "Although the window facing setting (WF) is the preferable place by male students, somehow the setting is highly distracting due to the movement, and the perceived brightness causes glare". Conversely, several respondents (S02, S04, S08, S09 and S10 claimed that the green wall finish creates calm, encourages the memorisation process and helps better concentration as the wall has no pattern. According to respondent S07, S09 and S10, the wooden wall finish induces enthusiasm in completing the *hafazan* task, encouraging engagement in the memorising task. For the face-to-face setting (FTF), respondents S01, S03 and S11 alleged this setting is suitable for the *hafazan* task as it allows interaction in practising the *hafazan* and avoid sleepiness. When it comes to the perceived brightness, the window facing setting (WF) was highly ranked for its natural lighting. Finally, the respondent nominated the white wall setting (WHW) for its comfortableness on the layout arrangement. According to respondents S09 and S12, the setting is stimulating and encourages engagement in memorising the Qur'an because the wall finish is bright and has no distraction in terms of movement or unnecessary decoration of the class. Respondent S08 and S10 added that the setting had minimum sounds echoing, which helped them concentrate on memorising Qur'an, especially for those who sit at 2B in a cubicle setting. It is pertinent to note that there are various rankings in terms of perception according to each setting type.

Preference and performance by settings of female students for 10 days of experiment

Table 3 Percentage of preferences setting by female students for 10 consecutive days

	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10
Percentage (%)										
1A	25.0	16.7	18.2	10.0	20.0	10.0	10.0	33.3	10.0	20.0
1B	41.7	41.7	18.2	40.0	10.0	30.0	30.0	0	30.0	0
2A	0	0	0	10.0	0	0	0	11.1	10.0	10.0
2B	0	0	0	10.0	10.0	0	0	0	0	0
3A	8.3	25.0	27.3	10.0	20.0	20.0	20.0	22.2	20.0	30.0
3B	16.7	8.3	0	10.0	10.0	20.0		0		10.0
4A	8.3	0	27.3	10.0	20.0	10.0	20.0	11.1	10.0	10.0
4B	0	0	0	0	0	0	0	11.1	0	0
5A	0	0	0	0	0	0	0	0	0	10.0
5B	0	8.3	9.1	0	10.0	10.0	20.0	11.1	20.0	10.0

Table 3 portrays the pattern of preferred setting by female students for 10 days of the experiment, while Fig. 5 indicates the pattern of performance in mean scores according to the settings and types of sitting. The results show that both patterns are relatively more distributed and vary from day 1 to day 10 than male students. On most days, the majority of female students prefer having *hafazan* task at both sitting types in the white wall setting (1A & 1B in WHW), followed by the green wall setting (3A in GW) and wooden finish setting (4A in WD).

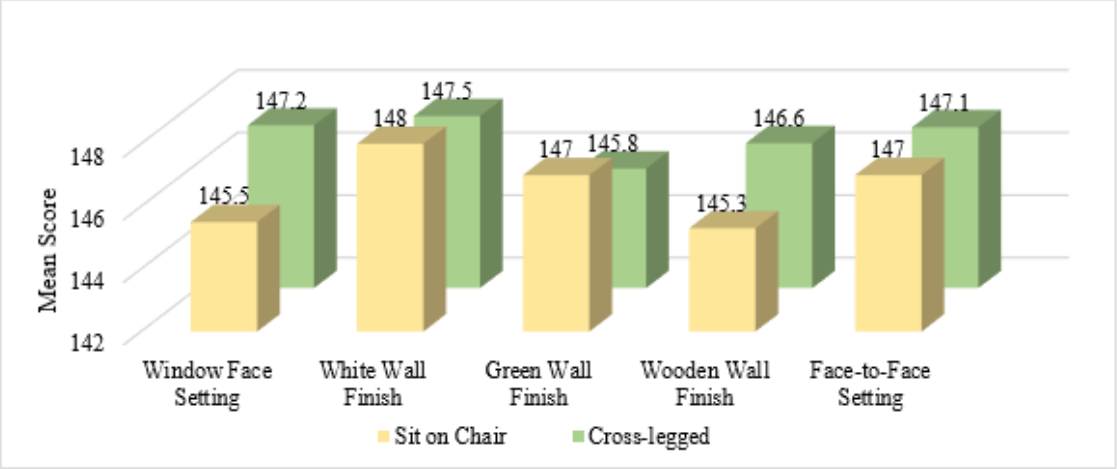

Fig. 5 Mean score of *hafazan* performance based on setting and sitting styles by female students.

Although Fig. 5 shows a distributed pattern, the white wall setting (WHW) and face-to-face setting (FTF) significantly influenced students' performance more than others, contradicting their pattern of preferences. Respondent S14, S15, S16, S19, S20 and S21 stated that setting 1B (window facing setting) has better brightness and adequate ventilation, making the place airy, and the nature view encourages better memorisation of the Qur'an. The green wall setting was the second preferred place for *hafazan* among the female students (setting 3A) because it helps them focus better on the task (Respondents S17 and S18). In terms of position, the female students preferred to sit on the chair due to less movement than cross-legged sitting (Respondent S15, S16, S17, S18 and S20). Female students prefer four setting types throughout the experiment. However, the overall result reveals 6 out of 10 days portrays the highest percentage of female students, agreeing that setting 1B is the preferable setting.

Relative importance index towards the perception of female students on the settings provided

Table 4 Perception of the setting in Relative Importance Index (RII) by female students.

	WF		WHW		GW		WD		FTF	
	RII	Rank	RII	Rank	RII	Rank	RII	Rank	RII	Rank
Comfortness On The Layout Arrangement	0.150	4	0.238	1	0.208	2	0.288	5	0.358	4
Position Comfortness	0.188	1	0.225	3	0.204	3	0.304	4	0.408	3
Perceived Wall Finishes	0.183	2	0.196	4	0.138	5	0.358	1	0.225	5
Perceived Brightness Setting	0.100	5	0.150	5	0.179	4	0.342	3	0.417	2
Perceived Privacy Setting	0.150	4	0.225	3	0.179	4	0.225	6	0.175	6
Condition Suitable For *Hafazan*	0.171	3	0.233	2	0.233	1	0.350	2	0.538	1

Table 4 indicates the RII towards the perception of female students in the settings provided. The result shows that the highest rank at the window facing setting (WF) has better comfort in terms of position. As referred to in Fig. 5, female students preferred sitting cross-legged at the window facing setting. The respondents S15, S16, S17, S18 and S20, stated that cross-legged sitting was way more comfortable than sitting on a chair when having *hafazan* task at window facing sitting than sitting. Furthermore, respondent S16, S20 and S24 stated that window facing setting could reduce stress and rejuvenate by observing nature suitable for memorising tasks. For white wall setting (WHW), respondents' ranked comfortableness of layout arrangement as the highest ranking. Respondent S14 mentioned that the white wall finish setting had better brightness and comfortable for the *hafazan* task since no view and excessive decoration to distract them. The female students also ranked the wooden setting (WD) as a recommended environment for *hafazan*. Respondent S20 claimed that the wood finish made the student feel shaded and cooler due to its darker effect compared to other wall finishes. However, the condition made the student feeling a bit sleepy (Respondent S18). In terms of environmental suitability for *hafazan*, the green wall (GW) and face-to-face (FTF) settings were nominated as both conditions could prevent the students from sleepiness (respondent S17, S18 and S19). Interestingly, the respondents also highlighted that the echoing effects helped them in memorising Qur'an (respondent S17, S18 and S21). Apart from that, respondent S17 mentioned that "I used to memorise Qur'an facing on the coloured wall finish, and it helps me shorten the duration in memorising the Qur'an".

CONCLUSION

It is concluded that all three responses show various indicators where there are no consensus findings that could agree that the Qur'an *hafazan* activity is best to be done in a specific setting. The indicators tell us that the perception or the preference responses alone cannot be the best justification to find the ideal *hafazan* environment.

Table 5 Summary of Findings of Nominated Settings based on Gender and Type of Responses.

Type of responses	White Wall Setting (WHW)	Green Wall Setting (GW)	Wooden Finish Setting (WD)	Face to Face Setting (FTF)	Window Facing Setting (WF)
Performance:					
Male	✓	✓			
Female	✓			✓	
Perception:					
Male		✓	✓	✓	
Female		✓		✓	
Preference:					
Male					✓
Female	✓				

The responses should be supported by other responses, such as the performance, for more concrete evidence. In detail, Table 5 above shows that the green wall finish (GW) and face to face (FTF) settings have a more positive influence on both male and female students' perception directly and indirectly, as reflected in the performance scores. Hence, the objective, which is to determine the most preferred setting for *hafazan* task by gender for 10 consecutive days, has been achieved. Secondly, the result also reveals peacefulness, no distraction such as no unnecessary visuals element or movement, stimulating, rejuvenating from feeling sleepy, echoing, and privacy are the frequent terms mentioned in describing the quality of the environment they need. Thus, the second

objective, which to identify students' emotional justification to the preference and perception, has also been achieved. These emotional descriptions are pointing the two types of environment that should be designed for the Qur'an *hafazan*, namely, the individual environment and the interactive environment. Consideration of the two *hafazan* environments is an effort in recognising individual differences in adapting to their environment. It is because each individual has a different ability in responses to the stimuli from the surroundings (Mehrabian, 1977). Some students are easily distracted by the irrelevant stimuli from the surroundings, while some students are not. It is pertinent to note that somehow, the experiment and the findings are only applicable to Quran memorisation for tahfiz institution, and it is suggested that any context-specific scheme should be developed from the existing situation. Besides, more explanation from different perspectives, such as physiological responses, is needed. It is also recommended to conduct the experiment in other *tahfiz* building typologies such as *tahfiz* with housing, commercial and Pondok setting for more significant findings for future reference and institutional improvement.

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