

METHODS FOR COLLECTING SPIRITUAL EXPERIENCES DATA AMONG OLDER ADULTS: DIARY-INTERVIEW STUDY

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Abstract

The growing number of older adults worldwide is inevitable. In Malaysia particularly, Muslim's older adults ought to be equipped with Islamic mobile applications in order to optimize their chances of ageing successfully. Nevertheless, the uptake of study pertaining how to capture spiritual experiences of older adults' for Islamic mobile applications is less. It is very important to identify spiritual experiences for older people in order to develop Islamic applications that meet the needs of older people. Many researchers are interested in exploring spiritual user experience in general but did not describe the spiritual experiences in detail. Therefore, in this paper, we describe our exploration of using workshops, interviews and diary method to obtain older adults' spiritual experiences while engaging Islamic mobile application. A case study of 11 older adult participants was conducted by using Quran Bahasa Melayu application as a tested tool. The finding shows that diary-interview method is able to capture spiritual experiences of the older adult participants. Besides that, we propose Islamic Spirituality Experiences Model (iSEM) for evaluation guidance of Quran mobile applications.

Keywords: Qualitative study; Techno-spiritual; Spirituality; Quran; Islamic applications;

1.0 INTRODUCTION

Most countries around the world are facing a phenomenon of rapid demographic ageing population including several European countries, Japan and China due to fertility decline and also increased longevity [1]. Malaysia is also one of the countries which showing drastically increased number on older people population. The total population in Malaysia was 28.96 million with Malays (Muslim) ethnic form the largest community [2]. Realizing the ageing phenomenon in Malaysia, the government is striving to find ways to bridge the older adults with technology so that they can live

independently while achieving successful ageing. The elements of successful ageing as according to Rowe and Kahn Model [3] comprises of maximize positive spirituality, engage in active life, minimize risk and disability and maximize physical and mental abilities. Taking one of the elements which are positive spirituality into account therefore, therefore, spiritual mobile technology perceives as a vital tool to help enriching older peoples' positive spirituality.

Therefore, the aim of this paper is to answer the following questions:

- a. How to obtain spiritual experiences data of older adults in using Islamic mobile application?
- b. What are the elements that can be used to measure Islamic mobile application for older adults?

2.0 RELATED WORKS

The role of spirituality and religiosity in mobile technology has been investigated in a number of studies particularly in United States of America, United Kingdom and also Malaysia. Since 2006, Bell [4] mentioned on the importance to study pertaining spirituality which is an underexplored domain in HCI as there is an alarming scenario where people start to find religious information through the internet. The term techno-spirituality [4] was then introduced which means technologies to support religious practices. Since the calling, there are several uptakes from westerners scholars such as [5] that proposing the application design for Mobile Islamic Call for Prayer Reminder to support techno-spiritual practices. Another researcher from UK [6] did a research to highlights spiritual experiences, however the focus is toward spiritual experience for game technology design. A group of researcher's from Malaysia investigates for techno-spiritual aids to compensate elderly Muslims in performing prayers [7]. And finally, [8] describe the Prayer Companion, a design for device that support prayer activity.

As far as researcher's concern, there is no study discussing on subjective spiritual experience of older adults using Islamic mobile applications. This could be due to the difficulty of studying subjective spiritual experiences especially with older adults as "to take one's own subjective experience seriously, one must turn to reflectivity and introspection" [9]. Moreover, as to date, there is no evaluation guidelines produced for measuring spiritual user experience although user experience domain has been growing rapidly recently. According to [10], in 2013 there are almost 6,000 applications in iTunes App Store that related to spirituality and religious practices, however, the development of the applications was not tailored to older people needs. Besides, there is no study being done to study techno-spiritual for older adults [11].

According to [3], [12], it is difficult to measures spirituality quantitatively since there are many variation and expression of spirituality. Additionally, spiritual or religious experiences normally perceives as very private and personal [10] to be shared with others especially through direct and scientific approach. The data pertaining individual spiritual experiences should be captured naturally to

preserves it's naturalistic. Diary-interview method was reported to generate emotionally rich data [13]. Therefore, diary-interview method which combines solicited participant diaries and face-to-face follow-up interviews, can be used to approximate older adults observation [14].

3.0 METHODS

Participants's Background

In this study, the total number of participants involved in the workshop is 15. Eight participants joined Workshop 1 and another seven participants joined Workshop 2. However, 2 participants unwilling to take part in the diary study and the other 2 participants do participate until the diary study phase but unable to finish the diary entry until 7 days. Therefore, the final total number of participants of this study is only 11 persons. According to Tobi, the number of participants for qualitative approach where employing case study could be ranging from as minimum of 5 or more participants. The age range of participants was 60 to 74 years and 5 participants were male and 6 participants were female, participants background is vary where we have housewives, retirees and also managers. We used purposive sampling technique in order to select participants to join the study. The inclusion criteria were that older adults' participants had to be aged 60 to 74 years old, and they were Muslim and they had to have at least an experience of using mobile phones. All data was collected at Kompleks Warga Emas Seksyen 24, Shah Alam, Selangor. Selangor state has the most populous and more industrialized state in Malaysia [2], [12] thus Shah Alam is the capital city of Selangor. Kompleks Warga Emas is located in Shah Alam where this complex gather registered older adults which age 56 years old and above from within Shah Alam area to be a member.

Data Collection

The following Figure 1 depicts the data collection process with older adult participants.



Fig. 1. Data Collection Process

Create rapport

Establishing rapport with participants is very important to strengthen the ties between researchers and older adult participant's besides gaining positive feedback during the data collection process. It is a good practice to make visits to the field to build trust and relationship with them. Researchers have the opportunity to join older adults' activities at the center such as joining the recitation classes and religious lecture.

Set an appointment and Asking participant's approval

The relationship between researcher and complex manager was good since researchers have conducted several community activities with older adults at the complex in the past. We went to the complex two weeks before we run the workshop to make an appointment. The complex manager welcomes us and excited to run the workshop. We provide a form to be filled by older adults who are interested to join the workshop. Therefore, we mix around with the older adults by participating few times in serial religious classes at the complex; make an announcement about the workshop at the end of the religious classes to get number of participants. We managed to get 8 participants who are interested to join Workshop 1 and 7 participants for Workshop 2.

Workshops

This workshop aims to teach older adult participants on using Quranic mobile applications. We choose Quranic application since our previous study discovers that most of older adult participants says that they want to learn Quranic application more than other Islamic applications [15]. Therefore, Quran Bahasa Melayu application was being chosen in this workshop since it was built using Malay Language platform and it has among highest number of downloads in Google Play Store at that particular time. We provide tablet PC for older adults to learn the apps since tablet PC have bigger screen and works [16] for several older adults who have eye problem. The workshop was split into two series which called as Workshop 1 and Workshop 2. Workshop 2 is being done in less than a month after workshop 1. The reason of dividing the workshop into two series is because we want all the older adults' participants feel convenient during the workshop with little number of participants in class and they can focus more towards the lesson. The workshop agenda can be classified into three main sections which are the introductory session, video demo and teaching and learning session in small groups. In introductory session, the researcher's representative gives a speech about the workshop objectives and followed by another welcoming speech by the Kompleks Warga Emas management representative. Next, we present a 15 minutes demo video that shows how to use the apps. At the end of the video we provide several

frequent questions and answers regarding handling and reciting Quran from mobile phones for older adult users' additional knowledge.

Last section in the workshop is teaching and learning session. All older adult participants were divided into small groups consists of two to three peoples in a group. Each group facilitated by one facilitator to teach the participants from how to install the apps until how to use it. Each Quran Bahasa Melayu features such as audio recitation, bookmark, resizing text and choosing selected verse was introduced. Older adult participants were also given the opportunity to try the apps on their own.

Pre-interview

After completing teaching and session, the older adult participants were interviewed individually by researchers. Again, before the interviewing session begins, each of the interviewee was asked for consent to participate in the interview session. This procedure was done to ensure the willingness of participants to answer all the questions without hesitation. The purpose of pre-interview is to obtain participant's background information and their previous experience of using any mobile applications including spiritual applications. Essentially, that information could help researchers in understanding older adults' exposure with mobile technology.

Diary study

At the end of the pre-interview, we asked participants to keep a diary for seven days. According to previous scholars, 7 to 14 days is sufficient for researchers to gain data using diary [14], [17]. The diary was based on a template of 3E diary that we have tested in our pilot study with previous older adult participants [18]. 3E diary as in Figure 2 is being chosen instead of any other diaries since it manages to uncover older adult experiences, feelings and emotions through facial expression used in the drawing and written text [19].

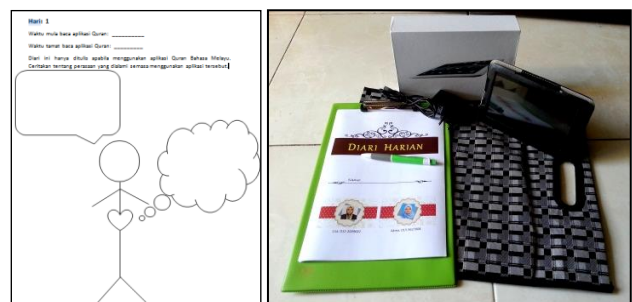


Fig. 2. The 3E Diary Template (left) and Tool Set for Diary Study (right)

Since our participants were older adults, we try to assist as much as we can throughout the study thus we provide instructions on how to fill up the diary in

each 3E diary page. The tablet PC, a charger, a set of diary and a pen was provided to each of the participants as in Figure 2. We advise the participants to fill up the diary only when they recite Quran Bahasa Melayu applications because our main goal is to capture participants experience after reciting Quran using the mobile apps. It is researcher's responsibility to remind each participant's (using whatsapp messenger, sms or phone call) to fill up the diary or giving guidance whenever participants need help.

Post-interview

Post-interview or follow-up interviews as suggested by [17] were used to clarify back the information gathered from the participant's diary. Researchers interviewed older adult participants approximately 3 to 4 weeks after the diary study. The interview session take place either at participants' house or at the complex depending on participant's request. We bring back all the drawings that the participants have drawn previously and we ask them to tell us the meaning for each face expression in the drawing. All participants' explanation regarding the diary was documented, and the session was also audio and video recorded for researcher's observation during analysis.

4.0 RESULTS

All data that have been collected from three different methods which are interview, diary and observation were analyzed inductively using thematic analysis to produce categories and themes for spiritual experiences. From the interview, we gain some insights about our participant's background. Majority of the older adult participants were active users of mobile phones, whereas half of the respondents possess smart phones with an internet connection. One third of the older adults have an experience of using Islamic applications for instance Quran recitation and prayer reminder while some using mobile phones to listen to religious lecture using YouTube and searching for religious practices information through websites.

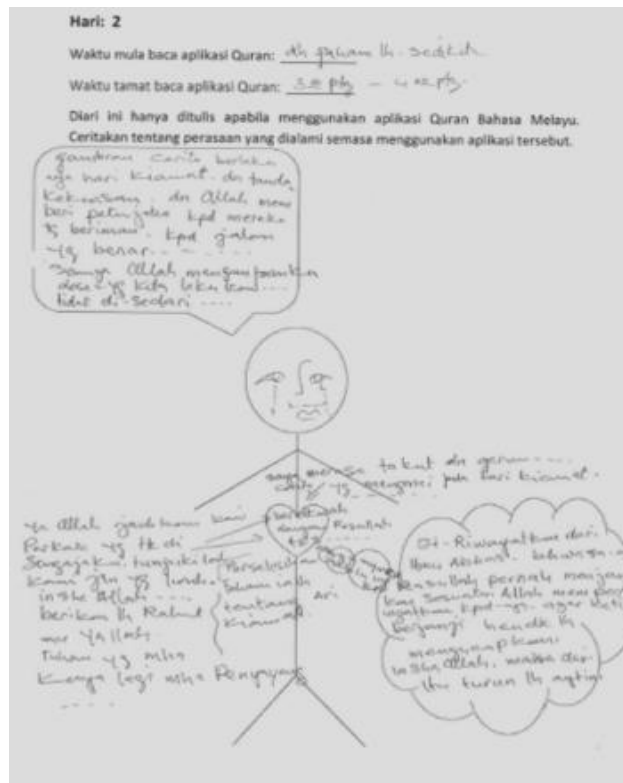


Fig. 3. Results of 3E Diary

A triangulation analysis between interview, diary and observation discovers that older adults experiencing emotional changes while using Quranic mobile applications. For instance, all 11 participants reported that they feel closed to Allah, feeling of repentance, feel contentment, wanted to do good things to other people, feeling amazed with Quran translation and feeling inspired while listening to audio recitation in the Quran application from the tablet PC. Data from 3E diary shows that participant's try to express their sorrow while reciting Quran application through the picture of crying face as in Figure 4 and from our observation, the participants are also crying while explaining about how much they felt afraid while reading the meanings of Quranic verse translation in the application. In interview:

"I felt fear and scared... stories about the Day of Judgment. While reciting I see the meaning, it is indeed amazing" (P3, 14/3/15, 11.45am)
 "Of course, it is exciting to recite the Quran. When we read the Quran there is a sense of fulfillment. When we finished reciting the Verses that we want to read, we will feel very satisfied. I feel like want to use it again" (P11, 14/3/15, 11.50am)

We reported the above spiritual experience as transcendence, as [20] defines transcendence as 'a shift in metaperspective from a materialistic and pragmatic view of the world to a more cosmic and transcendent one' which further justified by [12] saying that 'shift' here means a shift towards the

sacred. Additionally, the participants also reported that they feel very calm, always thinking positively, release from stress, soothed and also relax. In this case, we name the participant's spiritual experience as peacefulness. Data from 3E diary:

"After listening to the Quran recitation – I will always feel calm. No negative thoughts. Think of the good things. Hopefully God will forgive my sins. Hopefully God simplified all my matters" (P4, 29/3/15, 11.05am)

In another interview, several participants state that they enjoy listening to the recitation audio in the application. Participant 2 for example, states that she will just turn ON an application button to hear the recitation.

"It's fun while using the tablet; we can just hear the recitation while we turn the audio ON. Just listening to it, and try to appreciate it" (P2, 2/4/15, 2.15pm)

"I'm very happy since I can recite Quran from tablet, it is easy....I can also see the translation...." (P3, 14/3/15, 11.45am)

Few other participants are happy since the application is simple to be used. Therefore, we code this spiritual experience as Joyful.

"Yes, it's true; it is a good and simple application. Easy to be used and makes me want to use it." (P7, 11/4/15, 9.00am)

Another data that emerge from the analysis was named as Energy. It is surprisingly when few participants' claims that using Quranic applications makes them feel motivated, strong and do not feel tired even though they have recite for many pages. Data from an interview:

"....Did not feel tired even though I have read many ayah's as compared with the Kitab" (P6, 19/5/15, 11.50am)

"Using tablet encourages me to recite Quran." (P4, 29/3/15, 11.05am)

Instead of reporting pertaining their inner feeling towards the application, the data analysis finds that older adults also responded toward application's usability which covers application's function, features and design. One of the codes that we discover was named as Simplicity. A participant said in an interview that the tablet is easy and fast to use:

"If using tablet, it's easy, just press the button and you will get it fast" (P9, 19/5/15, 10.30am)

Other participants' state that tablet application is also perceives simple because it can be used while they are doing other things like housekeeping work:

"...if we turn ON the tablet, we can at the same time doing other things like cooking and housekeeping" (P2, 2/4/15, 2.15pm)

Most of participants indicated that application features is very important for Quranic application. These include the use of audio recitation, language translation and bookmark function. According to them, tablet technology is good for older adults since the screen is bigger than hand phones; moreover the lighting from tablet helps older people if they want to memorize Quran verses before sleeping in dark room.

"...inside certain verses, if I want to recite or memorize and understand it....I can get it fast. If using manual Quran is more tedious because I need to flip first." (P11, 14/3/15, 11.50am)

They also believed that the use of video showing the Qari reciting Quran can help them in improving their recitation in terms of correct tajweed pronunciation. We named the element as features.

Findings from this study also reveal that attractiveness in terms of the use of multi-color and application's design including button and images makes them motivated to recite Quran using application. Besides, a participant highlight on the importance of attractive application's where she cannot concentrate more than 30 minutes if the application does not look attractive.

"...It is good if you can make the application colorful, because it can attract elderly's interest. If it is only black and white, we cannot stand for long duration. In 15 to 30 minutes we will start to think of other things. We can't concentrate. But if the application is colorful it is more attractive" (P11, 14/3/15, 11.50am)

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5.0 DISCUSSION

From our study, it shows that young old user's category can be classified as active users of mobile technology. Mobile technology such as hand phones perceives as very important gadget that they should have since it can connect older adults to their children, friends, relatives or others. Tablet PC however, is suitable to be used for certain purposes such as when reciting Quran.

This paper proposes an appropriate method for exploring older adults' spiritual experiences while engaging Islamic mobile applications. Diary-interview is a well-known method used to explore user experience and being chosen in this study. In the next step of our case study with a group of older adults, we try to structure spiritual experiences gathered from the reported diary-interview with older adults into a model. This model, we name it as Islamic Spirituality Experiences Model (iSEM) comprises of six identified themes from the qualitative analysis as depicted in Figure 4. Peer debriefing and review processes as stated by [21] have been done to each of the elements to prevent from biasness and inaccuracy of data.

The study highlights six themes which made up iSEM model which are sublimity, vitality, effectiveness, efficiency, satisfaction and flexibility as stated in Table 1. Transcendence and peacefulness are the two elements of sublimity theme whereas; sublimity and vitality are the two elements for vitality theme. We combine and adapt this two themes from a well-known musical scale known as Geneva Emotional Music Scale (GEMS) [22]. However, we added few keyword for certain elements like transcendence in response to participants' feedback. Transcendence in GEMS definition involved keyword such as inspired, feeling of transcendence, feeling of spirituality and thrills [22]. However, in our study we define believability; reflections and connectedness are part of transcendence element based on review of literature that has been done previously. Hence, we define energy as a new element for vitality theme. Next theme is effectiveness which include simplicity element. Efficiency theme include features element inside it. The other theme is satisfaction which comprise of two elements which are attractiveness and reliability. This three themes was adapted from the study of [23] about mobile application evaluation elements. The last theme is flexibility which used uniquely for Quran recitation application. Flexibility here as according to participants feedback means technology mobility, whereby older adults can freely reciting Quran using applications anywhere and it is not necessary for reciter to perform ablution before the recital.



Fig. 4. Elements of Islamic Spirituality Experiences Model (iSEM)

Table 1. Spiritual Experiences Domain

Categories/Elements	Theme
Transcendence	Sublimity
Peacefulness	
Joyful	Vitality
Energy	
Simplicity	Effectiveness
Features	Efficiency
Attractiveness	Satisfaction
Reliability	
Mobility	Flexibility

6.0 CONCLUSION AND FUTURE WORK

In this paper, we have attempted to explore the spiritual experiences among older adult users while using Quran mobile application. Researching this area has not been an easy task since spirituality perceives as private and sensitive to be discussed by certain people. However, the findings have been beneficial in identifying the spirituality elements for designing and evaluating Islamic mobile applications especially in the area of HCI. The findings in this study have shown that the diary-interview method was able to dig out spiritual experiences among a group of older adults in a natural setting. The use of 3E diary allows older adults to express their feelings and emotions through simple drawing and also written text. By using the diary template, they are not bound to follow the template necessarily but can draw and write freely according to their own creativity. In order to clarify the information gathered from the diary, interview method should be done as diary complement. Interview helps in justifying and clarifying the diary information especially the

drawing part with the older adults. Next, the emotions and feelings reported in the diary-interview are mapped into an iSEM model. The model could be useful for practitioners and researchers as guidance for evaluating Islamic mobile applications especially the Quranic application. We bear in mind that the use of technology is not necessary in order to get connected to God but somehow it could help in arousing the spiritual experiences among older adults. In the future, this model can be expanded to examine whether it can be used to evaluate other Islamic applications or not. Besides, the iSEM model can be tested with other type of Quranic applications instead of only Quran Bahasa Melayu to gain valuable feedback.

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