Experimenting with the use of persona in a focus group discussion with older adults in Malaysia

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ABSTRACT

Eliciting user-requirements from older adults – especially amongst non-users – can be challenging. This is due to the fact that older adults are varied in term of their functional abilities and experience with technology. The common User-centered design (UCD) techniques such as focus group and interviews were found to be less effective with older adults. Inspired by the benefits of persona in enhancing designer's attention through narrative and storytelling, the study reported in this paper tested persona as a communication tool in a focus group discussion with older adults in Malaysia. The study was carried out to gather Malaysian older adults' needs and requirements for the development of a prototype email application. Findings and feedbacks from the study shows that persona can be a potential technique to be applied in working with older adults. The use of persona in a focus group discussion does not only benefit the researchers and designers but also the participants – particularly in building interest among non-users to embrace computers.

Author Keywords

Persona, focus group, user requirement gathering, older adults

ACM Classification Keywords

H.5.2 [Information Interfaces and Presentation] User Interfaces: User-centered design; D.2.1 [Software Engineering] Requirements/Specifications: Elicitation methods; K.4.M [Computing Milieux] Computers and Society: Miscellaneous.

INTRODUCTION

UCD techniques such as questionnaires, interviews and focus groups are widely used in the area of human-computer interaction for older adults. However, studies show that outputs from UCD techniques are likely to be less adequate in representing the diversity of older adults (Eisma et al., 2004; Inglis et al., 2003; Newell et al., 2006). The barriers of these techniques are due to older adults lack of knowledge about technology and the communication gap between older adults and younger researchers. Conducting research with older adults require

some interpersonal skills and understanding of their needs and functional abilities (Zajicek, 2006).

Fisk et al. (2004) suggest that focus group is suitable for potential users to discuss their needs and ideas as well as share their insights about a device. However, conducting a focus group with older adults is often difficult (Zajicek, 2006). A focus group discussion consists of more than three older adults is difficult to manage due to the difficulties in hearing and attention (Inglis et al., 2003). Furthermore, older adults tend to deviate from the topic under discussion and chat amongst themselves during the focus group session.

Due to older adults' lack of confidence in talking about technology, it is important to provide an atmosphere within a focus group which encourages older adults to value their own opinions, express themselves honestly and enjoy their experience (Eisma et al., 2004). A study by Eisma et al. (2004) adopted focus groups as social gatherings for older adults to interact with researchers and among other participants. The study also found that the experience that older adults gain from learning about technologies in the focus group discussions has inspired them to participate in future studies.

The benefits of personas in enhancing designers' attention through narrative and storytelling triggered the idea to the author of this paper to use personas in a focus group discussion with older adults in Malaysia. The main thrust of this paper is to discuss the benefits of personas as a potential technique to work with older adults – particularly in eliciting users' requirements and needs. The motivation behind this experiment is to establish if the use of personas could bring focus and encourage older adults' participation in a focus group discussion.

In this study, the focus group has adopted personas as a communication tool to gather Malaysian older adults' needs and requirements for the development of a prototype email application. However, the discussion in this paper will not cover the technical and non-technical requirements for the prototype email application.

PERSONA AS A DESIGN TOOL

Persona is used to help the designers and programmers to see and understand clearly the user's needs and requirements. Cooper (2004) defined persona as a specific and precise representation of actual user or known as *pretend user* that is used throughout the design process. Persona is not a fictional character; every persona has its goal, behaviours and attitudes. Therefore

every persona has a profile (e.g. name, gender, age), a photo and a story. Most importantly, the creation of persona and its goal are based on the "initial investigation of the problem domain" (Cooper, 2004).

The use of persona is primarily for assisting designers and programmers to focus on users' needs in product development. Grudin and Pruitt (2002) also reported the successful use of persona with participatory methods and scenario-based design. Contrasting with the current use of persona, the study presented in this paper reported the use of persona with older adults in user-requirements gathering.

CREATING PERSONA

According to Mulder and Yaar (2007), there are three approaches in creating personas: 1) qualitative personas, 2) qualitative personas with quantitative validation and 3) quantitative personas. The first step in creating a persona (for all three approaches) is conducting qualitative research. This can be done through one-to-one interviews, field studies and usability tests. The second step in creating qualitative personas is segmenting users based on the findings from the qualitative research. This is followed by the final step, which is creating a persona for each segment.

However, creating qualitative personas with quantitative validation requires supporting data from quantitative research as verification. The quantitative data can be gathered from one of the following methods: surveys, site traffic analysis and customer relationship management (CRM) data analysis. Site traffic analysis provides the designers with data about users' actual behaviours based on the users' log files whilst CRM data analysis provides users' data from the customers' records (e.g. transactions, financial and demographic data).

Unlike qualitative personas, quantitative personas are created based on the data collected from quantitative research. Statistical analysis is used to segment the target users before creating a persona for each segment. The selection of the approach to create personas is determined by the project scale, time and budget constraints.

The benefits of persona as a design tool are as follow (Mulder & Yaar, 2007):

- Personas bring focus: help the designers define the target audience of the Web site. A persona enables a team/organisation to focus efforts on a specific group of users.

- Personas build empathy: help designers live in the users' shoes. Designers will start to feel like the users as they use the persona.

- Personas encourage consensus: help a team of designers to create one shared vision of their users' needs.

- Personas create efficiency: help designers to think about issues of users and features in the early stages to avoid these issues arising in the project later.

- Personas lead to better decisions: help designers/organisations make decisions based on the users' needs.

Researchers in Microsoft found that the persona is a powerful design tool and a method for enhancing engagement and reality (Grudin & Pruitt, 2002). They suggest that the persona is a foundation to build scenarios, data collection and communicating data that is collected using other research methods. Mulder and Yaar (2007) also added that the use of personas has expanded from a design tool into a strategic tool to help organisations define a business strategy, particularly in the area of marketing.

Personas could be a potential technique to be applied in a focus group discussion with older adults because of its effectiveness in engaging users' attention through narrative and storytelling. Positive feedback and findings with regard to the use of persona in the focus group discussion with older adults discussed in the sections below.

PERSONA: NENEK SIBER AMINAH

The use of personas in this study was inspired by the successful use of persona in enhancing designers' attention and engagement with the users throughout the design process. A persona named *Nenek Siber Aminah* (Aminah the cyber granny) was presented to a group of older adults who have never used a computer before.

Nenek Siber Aminah was created using a qualitative approach. She was based on one of the participants' profiles from interviews conducted at the beginning of this study. Although there were three personas created for this user-requirements gathering, *Nenek Siber Aminah* was chosen for the discussion because she has a similar background to the participants. It is necessary to use a persona which the participants can relate to themselves without referring directly to their personal abilities and experience. This is due to the fact that some older adults are ashamed of their computer illiteracy but have some interest in learning about technology.

The persona comprises some background about Aminah and her family, her computer activities and scenarios about the problems that Aminah encountered while using a computer and an email application. An extract of the script for *Nenek Siber Aminah* is shown in Figure 1.

Participant

Due to lack of volunteers and time constraints, only one focus group was conducted in this study. Eight Malays older adults from *Kelab Warga Emas Sri Siakap* (Sri Siakap Senior Citizens Club) volunteered for the focus group. There were six males and two females, aged between 58 and 66 years old.

Kelab Warga Emas Sri Siakap is a senior citizens' club for older adults aged 55 and above who live in the Cheras and Bandar Tun Razak areas. The club is one of the programmes under the Department of Social Community Development, Kuala Lumpur City Hall. *Kelab Warga Emas Sri Siakap* is located in a Malay residential area; therefore, the membership of this senior citizens club is predominantly Malay. The activities organised at this senior citizens' club are: Islamic religion classes (e.g. reading Al-Quran), health talks, holiday trips, medical

check-ups, Tai Chi and festive celebrations such as Eid, Chinese New Year and Deepavali.

> Aminah is a 60 years old widow who lived with her daughter's family…
>
> The main reason she goes online is to communicate with her son and granddaughter who studying in the UK and Japan.
>
> Aminah has difficulty in typing, understanding the computer language, controlling the mouse and using the Web browser to access her Yahoo! email account. She finds the mouse is sometimes disobedient…
>
> Aminah hopes she can be more independent and not rely on her grandchildren to solve her computer problems.

Figure 1: Nenek Siber Aminah

Procedures

The focus group was conducted in the lounge area in *Kelab Warga Emas Sri Siakap*. Before the discussion began, the researcher introduced herself and briefed the participants about the focus group activities. The discussion was conducted using a less formal approach where all the participants and the researcher were seated in a circle on the carpeted floor. It is common in Malay culture for people to sit on the floor, especially when they have an informal gathering with families and friends.

The researcher gave some introduction about computers and email before introducing *Nenek Siber Aminah*. The participants were given hands-on access to the researcher's laptop and played around with the wireless mouse. The laptop was running in the *Malay Interface Pack by Microsoft*. Nenek Siber Aminah was presented on A3 size paper.

The focus group was conducted in Malay, which is the first language of the participants. The researcher played a role as a moderator-cum-storyteller in the discussion. The participants were allowed to ask questions about the persona and the discussion flowed naturally from the questions with minimal interference from the moderator.

In addition to the use of the persona, a list of icons derived from Microsoft Outlook Express and Web mail was presented in the discussion. The participants were asked if they could recognise and associate the icons with their functions in an email system.

Initially the discussion was planned for 45-60 minutes. However, the focus group actually lasted for almost two hours. Every member of the focus group actively participated in the discussion. The participants suggested that the session should be done with other members of *Kelab Warga Emas Sri Siakap* and considered the session as an introduction to computers.

PERSONA AS A COMMUNICATION TOOL

Based on the researcher's observation and feedback from the older participants, the benefits of personas to a focus group discussion with older adults are divided into four categories.

Persona brings focus to the discussion

Older adults have a similar topic to talk about rather than chatting amongst themselves during the discussion. Personas help the researcher role as a moderator to keep the discussion running smoothly with full participation by the participants. Interestingly, the participants tended to relate the persona with their own experience and stories which they obtained from their family, relatives and friends.

For instance, one female participant made a comment on the scenario encountered by Aminah (the persona) with reference to her sister's experience with computers. The participant said "My sister has used a computer, but she said it is very hard for her to understand the language. It sounds odd, like this one, Login? I don't know what it means".

Persona encourages participation

Many older adults particularly the non-users, are conscious of their lack of knowledge and experience with computers. Therefore, many of them prefer to be listeners rather than contributors to the discussion. With the use of a persona, older adults do not have to worry about revealing their own incompetencies with technology.

Older adults particularly amongst the non-users, are anxious about being seen as incapable, especially in front of their friends. Eisma *et al.* (2004) suggest that researchers should be aware of and sensitive to older adults' motivations for taking part in a study in order to work successfully with older participants.

Persona stimulates the discussion

Although not all of the participants had any computer experience, the use of the persona helped them to think like a user. The discussion is often triggered by questions asked about the scenarios encountered by the persona. A more active participant normally takes a role to lead the discussion instead of the moderator. Therefore, the moderator (who was also the researcher) could concentrate more on observing and taking notes of the discussion.

Persona builds interest

Older adults from the focus group considered the discussion as an introductory class to computers and it inspired the non-users to start to use computers. Many of the participants have seen the focus group discussion as part of learning sessions and socialising with their friends. Thus, the use of personas could be expanded in conducting computer training with older adults. They may find learning in a small group is more exciting and interactive. This can also encourage older adults to be more participative in the computer class.

CONCLUSION

A focus group is mainly conducted at an early stage of a design process. One of the advantages of conducting focus group with older adults is the discussion can foster ideas that would not have been offered in one-to-one interviews. However, conducting focus group with older adults can be difficult due to the communication gap between older adults and the researchers.

For the past few years, the use of personas as a design tool has evolved into other areas including marketing and technique in data collection. A persona is not just a fictional character but an effective method to encourage participation among designers and programmers through narrative and storytelling. The creation of a persona is based on actual profiles and supported by empirical data.

In the study conducted in Malaysia, a persona was incorporated in a focus group discussion for the user-requirements gathering. This successful attempt has revealed the benefits of personas as a communication tool to improve older adults engagement in discussion.

It was also observed that personas can help to bridge the communication gap between adults and the researcher. Nevertheless, the adoption of personas as a potential technique to work with older adults requires more extensive study to support the positive results from the study presented in this paper.

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