An Invitation Method Enhance Internet-based Survey Response Rates

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Abstract

The Internet effect changes the way of today communication (Dash, 2005). According to World Internet Users and Population Stats, 35.6 per cent or the biggest group of World Internet users are in Asia, followed by 28.5 per cent in Europe and 22.2 per cent in North America (Miniwatts Marketing Group, 2006). This might support the growth of eLearning which will be used ubiquitously especially in higher education (the Illinois Online Leadership Council, 2003). The use of on-line questionnaires has increased dramatically; however, the research to date still indicates only very limited systematic research on web-based survey design in Thailand (Vate-U-Lan, in press), including for Thai undergraduates who are the biggest group of Thai Internet users (NECTEC & NSTDA, 2000, 2001, 2002, 2003).

The new methods to encourage the Internet users to participate in Internet-based survey are created and used. At the same period, the new presentation method using in Internet technology is developing. This article is reporting a part of systematic research namely, ***Internet-based Survey Design for University Web Sites: A Case Study of a Thai University****. The purpose of this paper is to delineate effective means of encouraging university students to respond and complete Internet-based surveys in a language other than English. Hence, this article is focusing on the invitation method that is the most effective way to encourage users of a Thai university web site to participate in Internet-based surveys.*

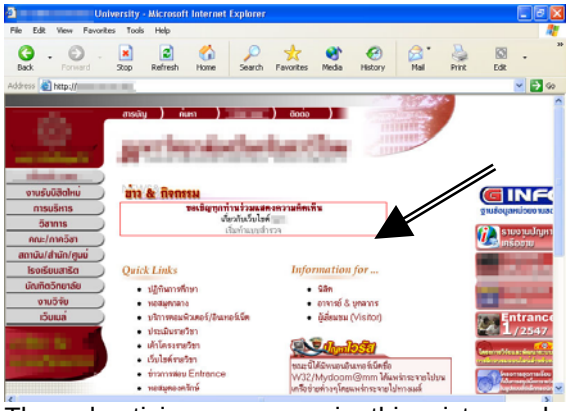
This experiment investigated web-based survey invitation methods based on an English-language background trial at a Thai university. Research for this project was conducted over 22 days from 26th of January to 16th of February 2004 at the selected university web site. The experimental trialled three synchronous types of Internet-based survey invitation methods: 1) an advertising marquee on the homepage 2) a pop-up window on the web site 3) a message box on the homepage. The survey samples self administered by clicking through to the online questionnaire. The rate of the survey completion was 3,848 times. The characteristics of participants did not differ meaningfully from the actual university population. The research finding revealed that the most effective invitation method was 'a message box when users click on any link on the homepage' since it was a new method with no restriction from the browser with an effective grasp on the attention of users rather than the advertising banner or the pop-up-window.

1. Invitation methods for Internet-based surveys

The Internet-based questionnaires influence the implementation of conducting survey in the knowledge-based society. Particularly, in social science and educational research, the use of Internet-based survey are increasing the same as the increasing of the usage of the Internet around the world (Solomon, 2001). This paper will report a part of the systematic research namely, **Internet-based Survey Design for University Web Sites: A Case Study of a Thai University by Poonsri Vate-U-Lan**. This article will detail only on different types of invitation methods that persuade users to complete the survey while accessing the Internet. This is because the on-line survey response rate depends on invitation interactivity - the more active the invitation, the better the response (Bauman, Jobity, Airey, & Atak, 2000). Furthermore, there is the greater possibility to recruit participants of Internet-based survey from Internet users rather than through offline recruitment. Thus, these study trialled three synchronous invitation methods: 1) an advertising marquee, 2) a pop-up window, and 3) a message box (see Figures 1, 2 and 3 below). These three invitation methods were presented on the homepage of a Thai university. During this launch-phase of the web-based survey, the expected participants were those who visited the university web site. Differences in three invitation methods were studied in this research, and they are described below. The site intercept methods can be categorised into two as described in following.

1.1. Passive invitation method

The site intercept is a technique which recruits the user's attention by posting advertising such as banners or normal text links; it is the most difficult to know that response rate because it is difficult to know the contact rate; also it is a passive methodology (MacElroy, 2000). Banners or icons on web sites inviting visitors to share their opinions is completely passive because users make a decision to click and then the second decision is whether or not to complete the survey request (Bauman et al., 2000). However, the advertising method obviously informs the main users of a particular web site and also there are a limited number of studies about the response rate from this technique. The passive invitation method examined in this study deployed an advertising marquee with a banner size of 468 x 60 pixels on the university homepage (see Figure 1). The advertising marquee technique is similar to the general advertising banner that randomly presents an advertising message. This simple method presents no problem on any browser; it also guarantees that, even though visitors use different browsers and computer screen settings, they can actually see the same invitation.



The advertising message in this picture when translated into English means:

Please feel free to indicate your opinions about our web site
Commence survey

Figure 1: An advertising marquee on the homepage

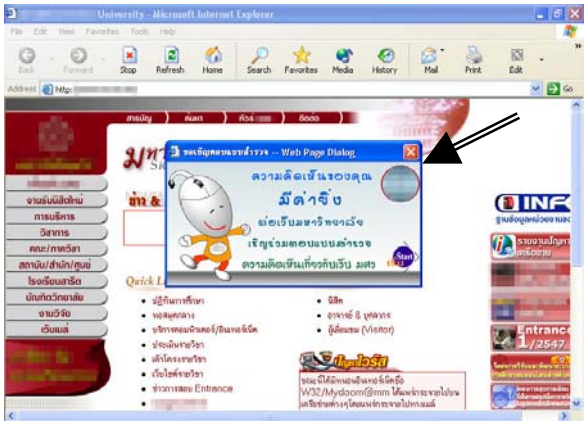
1.2. Active invitation method

An active method is the interstitial window - a pop-up window - a new browser window that can command users' attention. Similarly, the other interstitial window is a message box – a new message window pop up when the user clicks appropriately on any links on a homepage. These two kinds of active invitation methods are not only the pop up when users entrance the web or click on links on a web page but also it can be set randomly open for every nth visitor in order to reduce self-selection bias.

The pop-up window has been indicated as an effective method of inviting users to participate in an on-line survey (Comley, 2000). However, recently, the pop-up window not only has fallen out of favour as an invitation method due to many web sites using it as advertising (websurveyor.com, 2004) but also being blocked in the browser option. Conversely, these active invitation methods seem to make impositions upon on-line users. In addition, the presentation of a pop-up window is cautiously using attention-grabbing techniques by eliminating 'blinks' flashing or animation and high contrast colour combinations due to eye distracting (Hedge, 2005; IBM, 2005). The effective pop-up window should be of very small size, include minimal text and contain a click link to the survey (websurveyor.com, 2004).

Both pop-up windows and message boxes inform directly to the main users of a particular web site and also there are a limited number of studies about the response rate from the pop-up window method and none from the message box technique. In the early 21st century, the average response rate for the pop-up window method is estimated at between 15 to 30 per cent, which is higher than banners and badges on the web page (MacElroy, 2000) though better empirical validation is needed. The two active invitation methods examined in this current research is following.

The second invitation method used in this research was a pop-up window (see Figure 2) which "pops up" or emerges when the user enters a web site, and it has provided "one of the most positive contributions to web site research" (Comley, 2000), para.2). The pop-up survey window is used broadly as a method of invitation to people to participate in Internet-based surveys when they visit a web site. One barrier to using the pop-up window is the free software that restricts all pop-up windows automatically. Examples of this free software that can close or block or eliminate pop-up windows are Ad Fighter 2.5, Popup Miner 1.1 and AntiPopUp of Internet Explorer. Therefore, pop-up window technology that has provided previously good response rates will be confronted by the need to change in the future.



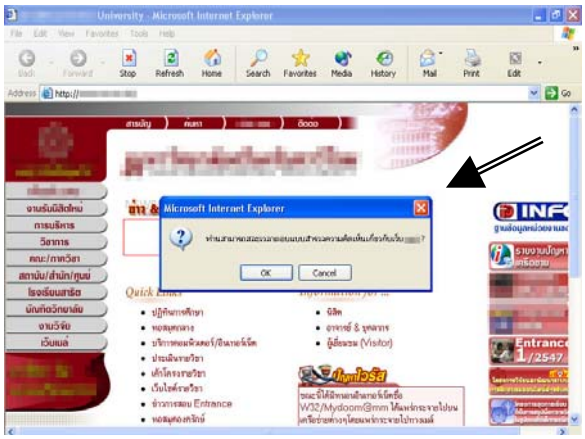
The message on the pop-up window in this picture when translated into English means:

> Your opinion is valued by university
> We would like you to participate in a survey about our web site
> **Start**

Figure 2: A pop-up window on the web site

The third invitation method deploys a message box when the user clicks appropriately on any links on a homepage (see Figure 3). This method was discovered by the researcher as she was searching

information about on-line questionnaire design. It appears to be used randomly only at websurveyor.com. The message window will appear to ask visitors to participate in the survey when they click on any links in that web site. There has been no study or report of the response rate using the message box to invite users to complete Internet-based surveys. Additionally, the message box is one method that should be studied because the research about reading on the web reveals that 78 per cent of users look at text while only 22 per cent look at graphics (Nielsen, 2000).



The message on a message box in this picture when translated into English means:

Do you have time to respond to the use of university web site survey?

OK Cancel

Figure 3. A message box on the homepage

2. Response rates

The overall research result reveals that the two biggest groups of respondents, namely the university students and prospective students, the total of these two groups are 61.3 % of respondents, have responded to this Internet-based survey. These two groups represented the target group of the survey since the research was focused on Thai university students as the main users of this Thai university's web site. The regular users such as undergraduate students and the university staff made the decision to access the web-based survey from a pop-up window rather than a message box. This evident matched the interviewees' opinions gained from the focus group interviews conducted prior the on-line survey, that a pop-up window with a cartoon is more effective than other invitation methods.

Conversely, the biggest group of users, that is about three fifths or 61.7 per cent of respondents or 2,376 participants who completed the survey, were users who chose the message box (see Figure 4). Almost two fifths or 36.1 per cent of users who completed the survey (1,389 participants) were users who entranced the survey through the pop-up window. Only 2.2 per cent of users who completed the survey or 83 participants were users who clicked-through the advertising marquee. The percentages of users who clicked-through the advertising marquee were not comparable to the other two invitation methods. According to this evidence, the advertising marquee perhaps was not a valuable invitation method for users of Thai university web sites in further surveys although this may be because it was the first method presented. In comparison with all experimental invitation methods, the most effective invitation method was the message box because it gathered the highest response rate though again this may be because it was the third invitation. The rationales of participants for their decisions to choose a particular invitation method also are reported on the dissertation not is this paper.

To measure the statistical significance of choosing the different invitation methods, a chi-square test was conducted. The statistical comparison of the response rates revealed that the message box was significantly more

popular than the other two methods at a significance level of .001.

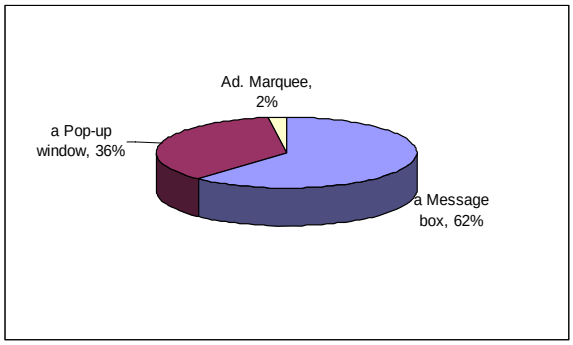


Figure 4: Comparison of survey completed rate

Summary

In comparing the survey completion rate across the three experimental invitation methods, a message box was the best method of invitation because not only did it gather the highest click-through rate but it also produced the highest completion rate. This reason supports the message box as one of effective invitation methods in the future. The next systematic research on the subject of the invitation method on Internet-based survey still needs to experiment in the different groups of samples and different styles of presentations.

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