

ONLINE SURVEY MANAGEMENT SYSTEM

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Abstract

Online survey offers cheapest data collection and processing cost, efficient service, easy data processing and wide coverage over traditional paper-and-pencil surveys; due to this its adoption recently has been inevitable. However, despite the number of advantages an online questionnaire can offer, there are still a number of problems and challenges related to authentication that need to be closely addressed. Multiple submissions, respondent authenticity/validity, and respondent's anonymity are among the issues that hinder the proliferation of online surveys.

Keywords:

Electronic studies, online reviews, email studies, strategy, online group, research procedures, Internet research.

Introduction

It is very much perceived in the behavioral sciences that studies are not flawless vehicles for gathering information since studies oblige subjects to review past conduct. Some social researchers fight that perception catches conduct all the more precisely and there is sufficient information to bolster their position. For instance, online customers overestimate the sum they buy online by 55%. Others recommend that the review questions predisposition subject judgements and answers. One option, numerous battle, is to gather behavioral information utilizing various methodologies. Perceptions, center gatherings, singular meetings, email, Web-based, postal, and arbitrary computerized dial phone studies can be utilized as a part of blend to enhance results quality and test representativeness. For instance, Yun and Trumbo (2000) accomplished a 72% return rate inside of a one-month period by consolidating postal, email and Web-based review shapes. In any case, research costs, access to subjects, the extent of the exploration and the way of conduct under study might make it illogical or monetarily unfeasible to utilize more than one information gathering approach. Electronic studies give the capacity to lead huge scale information gathering by others than associations at the focuses of force in the public eye. The innovation gives a reasonable component to leading overviews online rather than through the postal mail and one in which costs for each reaction diminish rather than expansion essentially as test size builds. Electronic overviews are turning out to be progressively basic, and research looking at electronic versus postal studies is beginning to affirm that electronic study content results might be the same than postal study content results, yet give solid favorable circumstances of fast dissemination and reaction cycles. Some of our insight concerning the successful plan and utilization of paper-based studies translates into electronic organizations. Be that as it may, electronic reviews have unmistakable mechanical, demographic and reaction rate qualities that influence how they ought to be composed, when they can be utilized and how they can be executed. This paper concentrates on those unmistakable qualities. Two types of electronic reviews have risen in the most recent fifteen years. The primary, no concurrent email overview goes back to 1986. The second, synchronous Web-based study, began about 1994. There are a few basic contrasts in the middle of email and Web-based studies. In the first place is database innovation. Electronic reviews give the capacity to consequently confirm and store study reactions utilizing database innovation and a HTML (hypertext markup dialect) client interface. Email overviews and reactions, whether inserted straightforwardly inside of an email message or appended as a word prepared archive, must be physically moved and went into capacity. Second, email is a "push" innovation that permits specialists to specifically correspond with imminent respondents. Online studies don't give this affordance of direct correspondence. This paper contends that Web-based overviews are better than email reviews in numerous angles, yet that email consolidated, maybe with logged off media, is an astounding vehicle for welcoming people to take an interest in Webbased overviews. Five methodological parts of online overview configuration and execution are basic fruitful Web-based overviews. These are (1) study plan, (2) subject protection and privacy, (3) testing what's more, subject choice, (4) dissemination and reaction administration, and, (5) overview guiding.

Background

Why should we be interested in online assessment tools? As already mentioned assessment and the overall need for accountability is on the rise. Use of assessment can provide a competitive edge in addition to measuring effectiveness, improving programming and informing future activities. Many programs are competing for limited resources and frequently this translates into a need to provide data that a program or activity is meeting its stated objectives. Although there are many ways of gathering the needed data, online assessment tools have the potential to aid in some aspects of the assessment process with the following benefits (Yun and Trumbo, 2000). · Lower cost relative to other data collection methods · A supportive environment for actual development of an instrument · An online data collection product that for some populations may facilitate a better response rates · Support for the data collection process;

responses are automatically stored in the provider's database with the ability for you to download the results when you wish. This eliminates the need for manual data entry. All of these topics will be explored further. Before proceeding with a comparative review of several online assessment tools, we explain the basic functionality that these online tools provide. In general these tools provide an online way to develop, deliver and collect data for assessments that use forced response or short answer items. Tools can be either self-service or full-service and pricing structures vary depending on the level of service (NPowerNY, n.d.). Most tools require minimal technical ability to use them. One sets up an account with the tool provider and then proceeds to use the main tool functions – which are often accompanied with online help and other support systems.

Survey Details Guidelines

Technically, electronic surveys should be designed to (1) support multiple platforms and browsers, (2) prevent multiple submissions, (3) have the ability to present questions in a logical or adaptive manner, if needed, (4) provide multiple opportunities for saving the work in long questionnaires (e.g., over 50 questions), (5) collect both quantified selection option answers and narrative type question answers, and, (6) provide feedback “thank-you” upon completion of the survey. Email survey research has established that email surveys meet some, but not all, of the electronic survey criteria cited above. The format of email survey can accommodate the principles of paper questionnaire design. These principles include the development of question scales and multiple choice answers from qualitative exploratory interview data, elimination of question bias through proper wording, and the use of clear, unambiguous and concise wording. Like postal surveys, successful email surveys have been shown to include: informed consent information, rating definitions and examples, rating scale formats such as Like type, semantic differential scales and nominal scales, and a set of demographic items. In addition, open-ended questions can be successfully accommodated in email surveys. Respondents were found to write lengthier and more self-disclosing comments than they do on mail surveys. Email also affords the technical ability to track whether the delivered email survey was opened, responded to or/and deleted as well as if the survey was undeliverable [Paolo et al., 2000]. However, email surveys have significant technical drawbacks. They can be altered by the survey takers themselves [Witmer et al., 1999]. There is no way to prevent someone from changing, eliminating or adding questions to the survey. Email surveys have also been found to be confusing to complete by respondents [Sheehan & Hoy, 1999]. This may be caused by the fact that email survey completion is dependent upon the email software if the survey is included in as part of the email, or on the word processing software if the survey is attached as a document. How respondents enter the answers to the survey question may vary because of this. Some respondents may not know how to manipulate the survey text enter the responses correctly. In other words, the researcher does not have control over how the questions are displayed by software and how responses are entered into the email survey text. Like email surveys, Web-based surveys have the advantage of low cost and quick distribution. Additionally, Web-based surveys provide the ability to transfer survey responses directly into a database, eliminating transcription errors and preventing survey alteration by the survey respondent. Initially technical issues inhibited the use of Web-based surveys, but new software and Internet related technology appear to be mitigating many of the technical limitations. Software applications such as Cold Fusion and software applications such as “Survey Wiz” and “FactorWiz” eliminate many of the construction and administration challenges of Web-based surveys. The principles of paper design apply to Web-based surveys as with email surveys. Although questionnaire screen design is more complex because it must be developed in HTML and supporting scripting and database languages, Web-based surveys provide additional format and response control. For example, radio buttons prevent multiple answers when only one is called for. Both coded and open-ended questions can be accommodated in Web-surveys. In a study using a Web-based survey where open ended questions were located after a set of coded questions, over 70% of the respondents provided additional information and explanations through the open ended question opportunity [Andrews et al, 2001]. However, it appears that attrition rates increase when using many open-ended questions requiring multiple items in the answers [Crawford et al., 2001] or when using questions that are arranged in tables on Web-based surveys [Knapp & Heidingsfelder, 1999]. This contradiction in attrition may be the result of question placement and whether the questions are optional or required. The Web-based survey designer has a wide range of textual options, format control and graphics sophistication not attainable with email surveys. The advantages include links, clicks, defaults and menus [Preece et al, 2002]. Links provide the ability to directly reference definitions or examples at multiple points in the survey. Clicks eliminate the need for textual data entry for all coded questions. Defaults, hidden or displayed, reduce nonresponse to questions. Menus, drop-down or displayed, provide an economical way to display many response options without cluttering the survey screen.

Software Requirement Specification

1) Purpose

This project aims at creating a website to conduct an online survey and manage it accordingly. A wide range of issues have been covered providing various options for the entire process and the statistics of the outcome have been duly recorded.

2) Document Conventions

The SRS document has been written in Times New Roman. Font size of the content is 12. The sub-headings have been highlighted with bullets as and when required.

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3) Intended Audience

The intended audience involves people who are willing to take the survey and provide their crucial feedback for future improvements.

Overall Description

1) Product Functions

The functions of the product would be:

- Registration:** It is mandatory for the user to register in order to use the . His/her basic details will be taken via the registration process. The users will also have a unique password to continue with the process further.
- Once the user has registered, he/she can take the survey. A different process is to be followed by the surveyor. He/she has the authority to add/edit/delete questions from the survey.

2) Operating Environment

The operating system used is Windows 8.1. The software used is Microsoft Visual Studio; implementing the language C# , HTML(Hyper Text Markup Language) and CSS (Cascading Style Sheets).

3) User Documentation

The software is user friendly and self-explanatory. The product is easy to use, and instructions have been provided at each step stating how to proceed with the process. The home page has all the necessary information so as the user can be directed to further pages; for their respective purposes.

4) Assumptions and Dependencies

The database dependencies and relationships have been taken special care of. The designing phases (involving ER Diagram, Data Flow Diagram and flowchart) have also been included as a part of the documentation later.

External Interface Requirements

1) User Interfaces

The GUI consists of the following pages:

- Homepage:** The homepage consists of a menu bar with choices as Home, About, Contact Us, Statistics. The Home menu gives an introduction to the survey management system. It also consists of a login panel and a signup option for a new user.
- About:** This page portrays a brief description of Our college.
- Admin:** This page has all the necessary features an admin may require to create and update the survey.
- Register:** It contains all the information a student must fill before giving a survey.
- Log in:** This page is used for login after the student registers himself/herself.
- Statistics:** This is the compilation of the outcome of the conducted survey with detailed information as to which answer has been opted for by various surveyors.

2) Hardware Interfaces

As soon as entries are made onto the signup page or login page, the data would be linked to the database accordingly. And whenever any data is to be displayed to the user it will in turn be fetched in the database and displayed onto the GUI.

3) Software Interfaces

Software interfacing involves tools as text boxes, labels, buttons, content panes, event handlers, etc. for easy access to the website.

4) System Features

The system features involve:

- Signup:** The user is required to enter basic details which involve a valid email id .An error message would be displayed if appropriate entries are not made or if the mandatory fields are not filled.
- While login, the username and password would be verified for security reasons.
- Mentioning all the required data is necessary.
- The surveyor can update, delete or add new questions as and when required.
- The surveyors are advised to complete the entire process of the survey by providing the type of answers, namely single choice, multiple choice and text answers.

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- The data entered by the surveyors would be authenticated and fed accordingly to the database which is to be used for compiling the statistics.

Other Nonfunctional Requirements

1) Performance Requirements

The website is highly efficient in terms of its performance. The design has been kept simple yet efficient. The data fed by the user would be authenticated. Risk management would be taken into consideration and the process would be incremental in nature.

2) Safety Requirements

The design of the website is such that it would prevent any sort of data loss, safety measures have been taken.

3) Security Requirements

The entire data fed by the user would be completely secure and wouldn't be accessible without complete verification. The updating of data would be taken care of by the surveyor. Special care would be taken regarding the privacy of certain data such as user password etc.

Software Quality Attributes

The product is portable, robust, flexible and user-friendly. The data entered would be updated time to time as any change is detected.

Conclusion

Online reviews are financially savvy all in all. They are presumably the most financially savvy method for information gathering when the objective populace is understudies and workers on a school grounds. A portion of the benefits of online studies over mail reviews are: no requirement for printing or postage; velocity of information gathering; and exactness of information gathering as exhibited for the situation study. In any case, there are a few impediments in online studies. These are low reaction rates, nonresponses, nonrepresentativeness of test, and absence of legitimacy of the information. Besides, a vast example size is liable to prompt a little criticalness level, along these lines requiring extra factual tests to legitimize the outcomes. At the point when nonprobability inspecting is utilized, specialists ought to utilize inferential measurements with alert. Despite the fact that there is some writing on online reviews, there is quite requirement for extra commitments to the collection of learning around there.

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