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Application of Online Survey in Reviews Teaching and Scientific Research Activities

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Abstract

We are living in the 4.0 technology revolution. The application of research methods that bring efficiency in terms of time, human resources and funds in the work is a top priority. With the advantages of online surveys, the University of Labour and Social Affairs has gradually researched and applied online survey products in assessing the school's teaching activities, bringing high efficiency, and minimizing costs compared to traditional surveys (face-to-face surveys). At the same time, the school focuses on developing its own online survey product to suit the storage and monitoring of content according to needs. In scientific research, lecturers of the University have also had many topics that have been applying the online survey method to bring certain results. Even so, there are still many studies that have not taken advantage of the online survey. Along with that, the article also introduces some pros and cons of online surveys.

1. Problem

Vietnam is the country with the 32nd most popular internet out of 75 countries surveyed by the Economist, the number of users is up to more than 60 million, accounting for nearly 60% of the country's population [1]. With the increasing number of Internet users, it has proven the power of the Internet in almost all sectors, especially the service business sector, which has taken full advantage of the power of the Internet in manufacturing, communication, and sales. In research and research, along with a solid theoretical basis, there should be more actual survey data to add affirmation and grounds for making appropriate proposals. The current actual survey of researchers using paper questionnaires still faces many difficulties in travel or funding and still takes a lot of time. These online survey tools through the internet will help us solve the above problems. However, the application of the utility of the Internet to investigate and survey in academic work and scientific research has not really achieved effectiveness at educational institutions in general and the University of Labour and Social Affairs in particular. Stemming from that fact, the author would like to introduce a solution to support online surveys in evaluating teaching and scientific research activities at the University of Labour and Social Affairs.

2. Online surveys

2.1 Survey

"A survey is a method of gathering information from a number of individuals (called a sample) to learn about the greater popularity that the sample gives" [2]. The selection of samples to conduct surveys should ensure that a sample is not chosen arbitrarily or using only those who wish to participate. The sample size for a survey will depend on the level of confidence needed and how the results will be used.

The questionnaire design step is an important part of the survey development process to link the data needed to obtain the desired information. Questions used in surveys must be clear to avoid causing confusion in language. If the survey taker cannot understand a question or does not understand the questions as intended by the survey creator, it will result in highly invalid and also unreliable data. To ensure that the survey is smooth, the researcher needs to be careful in the breadth of the survey. Using a survey that is too long can make respondents feel tired, leading to coping answers, leaving some questions blank or refusing to answer.

2.2 Online surveys

In the mid-90s, online surveys were conducted for short periods of time and are now gradually replacing traditional survey methods because of the fast speed of data collection, minimizing the cost of printing, analysis and research. An online survey is a method of gathering information from a number of individuals (called a sample) to learn about the greater popularity that a sample gives. Although online surveys come in many forms, serving many different purposes, they share certain characteristics.

The implementation of online surveys is almost identical to traditional types of surveys taken. The difference here is that we use the internet to send a link and it takes you to a form of designated markup language of questions that you send through email or internet sites. Information is collected quickly because as soon as the survey taker completes the survey, their feedback is immediately sent back to the researcher.

3. Application of online surveys in evaluating teaching and scientific research activities at the University of Labour and Social Affairs

3.1 Benefits of online surveys

Online surveys are effective solutions in many aspects such as economic efficiency. Online survey applications allow researchers to collect large amounts of information without having to pay interviewers, printing, or postal delivery fees and do not require separate data entry for responses to be processed. Online surveys are convenient for most people, the person taking the survey can completely receive a question and complete it at home or in the office on a computer, or smartphone. Online surveys allow researchers to quickly collect data in a timely manner. Information can be collected and processed in just a few days. It also gives survey takers plenty of time to carefully consider the choice of responses and input in the text for open-ended questions. Also, take online surveys without interviewers. Respondents will likely be willing to share personal information because they do not disclose it directly to others. The interviewer can also influence the respondent in some cases, so not using the interviewer is sometimes more effective.

3.2 Disadvantages of online surveys

Online surveys may face the problem of limiting samples and respondents are not willing to respond. The reason for this problem is that some people have little access to the internet and therefore will not be able to answer online questionnaires. It is also difficult to create probability samples based on e-mail addresses or website visitors. Online survey time can be shortened by not wasting travel time, and appointments but if the surveyed person is indifferent to the time you expect to get their answers, then your online survey may have struggled. Not using an interviewer can also lead to many adverse factors such as the respondent's lack of understanding of the content of the question or lack of further exploration of the researcher's problem.

Despite the advantages mentioned above, you can see that the benefits may outweigh the drawbacks for researchers in most situations, especially for shorter and simpler projects.

4. Application of online surveys in the evaluation of teaching and scientific research activities at the University of Labour and Social Affairs

4.1 Tools for conducting online surveys

Currently, there are many online survey websites, prominent among them are LimeSurvey.org, SurveyMonkey is an online survey service known by a large number of Vietnamese users or SurveyPopups is a free online survey creation service that is fast and convenient because you absolutely do not need to install software but it can be annoying to customers because it forces them to read what people don't want [3]. Among them, open-source LimeSurvey.org is highly appreciated, being a good choice for creating large-sample scale surveys. LimeSurvey is a powerful open-source tool that is easy to install, and set up, and has many advanced management features. Most of these websites are provided for free but the features are limited, if you want to use more diverse functions, users are required to pay a certain cost.

In addition to fee-based online survey apps, some sites also offer free online survey support tools. For example, Google provides Google Forms, which is a tool that allows users to create surveys to collect user opinions or to create contact forms and register for a product or service. Google Form is completely free for users. With its convenience, simplicity, and free, Google Forms are being used more and more. However, its limitations are the difficulty in statistics, the difficulty of creating its survey direction as well as collecting information beyond the information available in the questionnaire, the time of taking the survey, or the surveys that have not yet been completed.

4.2 Situation of online survey application in study and scientific research at the University of Labour and Social Affairs

The assessment of the quality of teaching activities at educational institutions always faces many difficulties due to the large number of students, training at different institutions or regions. Also, in the shortcomings mentioned above, the University of Labour and Social Affairs with a large number of students and trained at 2 campuses, Ho Chi Minh City and Hanoi. The University of Labour and Social Affairs has conducted activities to collect student opinions on teaching activities of lecturers every semester from 2012 to now. With the number of births increasing over recent years, the geographical distance makes the assessment not easy. However, the school's evaluation team has actively learned and applied online surveys to ensure that the work is completed on schedule and without causing waste. The survey process for collecting students' opinions on the teaching activities of lecturers is carried out according to the following scheme: First, develop a survey plan and forward it to the approval department. If the survey plan is approved, the next steps will be taken. In case, if the survey plan is not feasible, it will be transferred back to the survey plan development department. In case if the survey plan has been agreed upon, then the training quality management department will conduct the survey. After the online survey is completed, the data will be processed into tables and figures. This metric provides an overview of the survey

results. The survey was conducted based on software built by the school. This online survey software ensures data access, answering, and storage. The results of the survey processing will be included in the aggregate reports for all relevant subjects by unit and by each lecturer. In addition, the results of the survey report will be sent to students. The survey results will be the basis for the University, specialized faculties, and lecturers of subjects to consider adjusting and overcoming shortcomings in teaching activities. All information about training quality survey activities is stored in the database of the management department.
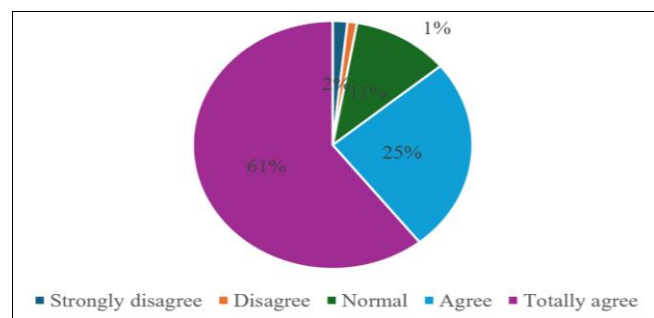
Table 1: The result of student feedback on the content and methods of teaching

Contents	Analysis results					
	Strongly disagree	Disagree	Normal	Agree	Totally agree	GPA
The lecturer clearly introduces the objectives and requirements of the module	1.7	1.1	11.2	25.3	60.6	4.42
The lecturer presents accurate, scientific basic knowledge of the module	1.6	1.3	11.7	26.6	58.8	4.40
The lecturer fully presents the content of the lecture compared to the contents in the module outline	1.7	1.2	11.9	26.0	59.2	4.40
Lecturers allocate appropriate time between theory, exercises and practice	1.7	1.4	12.1	26.3	58.6	4.39
Lecturers regularly update and expand knowledge related to the subject	1.7	1.4	12.3	26.1	58.6	4.39
Lecturers have clear, easy-to-understand communication methods	1.8	1.5	12.3	26.0	58.3	4.38
The teaching method of the lecturer stimulates students' interest in exploring new knowledge	1.9	1.7	12.9	25.9	57.7	4.36

Source: Excerpt from "Report on results of collecting student opinions on teaching activities of lecturers" [4]

Aggregated data in the second semester of 2022-2023, the University conducts a survey with a scale of 10,000 students. The relatively high number of students participating in the survey was 84.4% of the total number of students polled [4].

Source: Excerpt from "Report on results of collecting student opinions on teaching activities of lecturers" [4]

Fig 1: The lecturer introduces the objectives and requirements of the module

Thus, through the application of online surveys and statistical analysis software, we quickly obtained assessment results from nearly 10,000 students. We will see how students rate the teacher's communication, and the level of material and knowledge provided in the subject. In addition, we also know how students feel about the application of teaching methods that have reached the scientific level. In addition, when applying the online survey system, we can evaluate the survey results and the level of perception of survey participants.

In addition, online survey systems can assist us in drawing graphs that show clear visual results. The school has adopted the built-in application for online surveys. Thus, applying online surveys at schools in learning assessment has achieved positive results, but before the requirement to store information about periodic survey results, according to recommendations to improve the quality of assessment of teaching activities, the school needs to build a software system for survey activities, Synchronous, systematic evaluation, and better storage facilities.

Table 2: Student satisfaction with faculty teaching

Contents	Analysis results						
	Strongly disagree	Disagree	Normal	Agree	Totally agree	GPA	Quality level
Content and teaching methods	1.7	1.4	12.1	26.0	58.8	4.39	Good
Use of teaching aids - Materials for teaching learning	1.7	1.3	12.1	26.3	58.6	4.39	Good
Responsibilities of teachers to students	1.7	1.3	11.9	25.9	59.2	4.40	Good
Encourage students' creativity and independent thinking	1.7	1.3	12.1	26.1	58.8	4.39	Good
Check reviews	1.6	1.2	11.7	26.2	59.3	4.40	Good
Pedagogical style of lecturers	1.7	1.1	11.0	25.2	61.0	4.43	Good

Source: Excerpt from "Report on results of collecting student opinions on teaching activities of lecturers" [4]

In scientific research, online survey applications have not been put into use much due to many objective and subjective reasons such as survey respondents may be in remote areas, having low internet coverage, and having poor income levels leading to difficulty accessing technology devices to access survey responses. The second depends on the content of each research topic whether or not surveys need to be conducted. With the number of research topics of the university large and rich in content, in the coming time, we need to be more proactive in cultivating self-inquiry skills and applying scientific products to serve the research

with maximum efficiency.

5. Conclusions

In the era of scientific technology is growing and popular. The application of technical advances in all fields is no stranger. In assessing, teaching, or scientific research, we need to actively use products that support the working process such as the online survey application mentioned above. At the same time, it is also necessary to consider the compatibility of supporting products with the content, purpose, and needs of each topic or the intention of the

researcher. With the framework of an exchange research article, the author introduced an overview of online surveys, their advantages, and disadvantages, and also fundamentally assessed the current status of online survey applications for teaching and research activities at the University of Labor and Social Affairs.

6. References

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