# Research Statement

The  Acceptance of E-learning among Freshmen

take the students major in Electrical & Electronic Engineering Technology as research subjects

1. Introduction

With the development of technology, so many digital educational resources have appeared on the Internet and they have been integrated into people’s lives, especially the students. Additionally, more attention has been paid to a new way of study, which is called e-learning. No matter in high school and college, we have been used to using papers and pens, while with loose of electronics’ availability, we are taking online courses, doing homework on electronic devices, using e-textbooks etc.. However, some students take better advantage of those sources to learn while some students turn out to be in trouble with them. So, we try to evaluate the e-learning acceptance of students in our majors and hope to help students quickly adapt to e-learning in college. Finally, we wish to get a table which reflects the students’ attitude towards e-learning and analyze their acceptance of e-learning. Through our research, we hope people can have a clearer recognition of e-learning’s situation and we hope through this, we can develop a better solution to e-learning dilemma. The focused questions are how freshmen in our major think of e-learning, are there anything uncomfortable during they use electronics to e-learning, how to weigh the pros and cons of the e-learning and the reasons why they choose e-learning. Our research aims to offer a little map for students to start a e-learning journey and attract more attention to be paid to e-learning. Our research question is that compared to traditional learning, how do freshmen like the e-learning when they use the electronics for their reading and other things about your study. Based on our question, we think the factors which influence peoples’ attitudes are that compared to the traditional learning, the convenience of e-learning, the concentration comes from traditional learning and the abundant educational resources of e-learning

(初稿：叶宝，审核：苟书祥)

2. Relevant literatures

In our paper, e-learning research mainly focus on college students’ learning behaviors through Internet and electronic devices, which contain: learning online courses, finishing assignments with electronic devices, online assessment system, use of online resource.

With the development of technology, e-learning gradually plays an important role in modern society. E-learning has proved to be positively impact on learning of primary education students (Mislinawati et al 2020). Especially during the COVID-19 pandemic, the Internet has successfully helped maintain the university operations when the lockdown enforcement took place (Favale, et al, 2020). E-learning has been permeated into more other industries in society, such as online meeting in enterprises, transferring information in a considerably high speed, and inquiring data and statistics in business. Therefore, as e-learning has become a heater topic, we plan to figure out the acceptance of e-learning on the freshmen of CQU.

3. Methods

Our group decided to conduct the research in the Huxi Campus of Chongqing University, with all the subjects being freshmen who major in Electrical & Electronic Engineering Technology. And we planned to make use of the extracurricular time of freshmen, including weekends and spare time of weekdays, to continue our survey.

Questionnaires have been designed to provide to the subjects which aims to evaluate students’ acceptance of e-learning.

In the questionnaire, participants will be asked to rate on following items on a scale of one to five:

(1) Ever heard of e-learning? (Yes/No)

(2) Ever met difficulties when using electronic devices to finish assignments?

(1. Yes, a lot 2. Between 1 and 3 3. Indifferent 4. Between 3 and 5 5. No, it’s easy to deal with),

(3) Get used to learning online courses?

(1. Disagree 2. Between 1 and 3 3. Indifferent 4. Between 3 and 5 5. agree)

(4) Satisfied with online assessment system? (such as grading system of *pigai.org* ,speed monitoring of *budaolepao* app and ismart of students )

(1. Disagree 2. Between 1 and 3 3. Indifferent 4. Between 3 and 5 5. Agree)

(5) Like to search information through online sources? (Such as online library, MOOC)

(1. Disagree 2. Between 1 and 3 3. Indifferent 4. Between 3 and 5 5. agree)

(6) Preference of learning through Internet and electronic devices

(1. antipathy 2. Between 1 and 3 3. Indifferent 4. Between 3 and 5 5. fond),

(7) Frequency of learning through Internet and electronic device

(1. Never (less than 1 hours a week) 2. Seldom (1-5 hours) 3. Often (5-10 hours) 4. Usually (10-20 hours) 5. Always(more than 20 hours) ).

(8) Willing to recommend online courses and learning apps to friends?

(1. Disagree 2. Between 1 and 3 3. Indifferent 4. Between 3 and 5 5. Agree)

Participants will also be asked to answer following questions:

(9) How do you learn with electronic devices? (more than one answer is possible: a. laptop b. tablet computer c. smart phones d. only pens and paper e. other :)

(10) What is your attitude towards learning through Internet and electronic devices? (Write a few words to describe)

(11) Do you think learning through online is necessary for you?(Yes/No)

Researchers will contact participants through QQ and Wechat and collect research data with online questionnaires, and all participants will be voluntary. In the procedure of data analysis, we will take average score of each item in the questionnaire as the final results of acceptance of e-learning. Or we will list a tabulation or using graphing method to reflect students’ acceptance of e-learning. With sufficient number of samples, we will get a solid evidence to analyze students’ acceptance of e-learning. We will first evaluate students’ subjective feelings towards specific aspects of e-learning so as to figure out if they have adapted to e-learning. In the overall part, evaluating the use frequency is an appropriate way to get to know the reality of students’ using of e-learning. Besides, frequency of using e-learning reflects students’ acceptance practically while preference reflects mentally.

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4. Feasibility analysis:

1）The survey respondents: students from the same major with us. It’s easy to get in touch with them.

2) The research topic: close to the life of college students. So we have a wide audience, then a large number of samples can be collected for analysis during the questionnaire survey.

3) The equipment needed: the app "Questionnaire Star". We will carry out questionnaire survey online, which saves us time and resources. The main equipment requirements are computers or mobile phones that can be used for questionnaire making. The questionnaire will be made by using "Questionnaire Star".

4) Existed experience: The content of our study has previously been studied by a number of people, which can provide us with some valuable forward-looking experience.

5) The time line: a. we need to finalize our research objectives and main content; b. make the questionnaire based on the main content; c. the group members conducted a small sample survey on the Internet to determine the validity of the questionnaire; d. a valid questionnaire was used for the final investigation and research; e. the survey results were collected for statistics, summary and data analysis; f. sort out the results, divide the work and write the paper.

5. Social ethical considerations.

At present, there are no social and moral problems caused by this study

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