**Course Paper of Chongqing University**

The Acceptance of E-learning among Freshmen

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



**Research Proposal of Chongqing University**

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1. **Introduction(苟书祥，叶宝)**

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’ (Saade & Bahli, 2005). Electronic learning (E-learning) was implemented by educational institutes and universities across the globe (K. L. Kumar & R. Owston, 2016; Y.-C. Yeh & L.-H. Chu, 2018). In the college, although we have been used to using papers and pens, with the convenience of electronic devices, we are now taking online courses, doing homework online, using e-textbooks and so on. However, some students take better advantage of those sources to learn while some students turn out to be in trouble with them (Stuart J. Barnes & Andrew D. Pressey, 2014). So, we try to evaluate the e-learning acceptance of students in electronic and information major in a hope to help students quickly adapt to e-learning in college. Moreover, we expect to get some data 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 situation for e-learning. The focused questions is what’s the degree to which freshmen in CQU are willing to use e-learning, how they think of e-learning and what’s the factors that may affect their acceptance of e-learning. And our research aims to offer a little map for freshmen to start their e-learning journey. 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 that comes from traditional learning and the abundant educational resources of e-learning.

**2. Literature Review (韩昊辰)**

The concept of e-learning was born with the rise of the Internet and the popularity of electronic devices. In the era of information and globalization, pressure is put on academic institutions to integrate e-learning into their educational environment (Saade & Bahli, 2005; R.Hussein, U.Aditiawarman & N. Mohamed, Muhammad, et al. 2022). Universities all over the world have spent millions of dollars to build and maintain their e-learning systems (R.Ibrahi, 2017). E-learning has been widely applied all around the world. It is important to have more understanding of why students use e-learning to ensure its optimization.

**2.1. The acceptance of e-learning in China is a topic worth researching**

In developed countries, e-learning facilities and projects have been large-scale, institutionalized and relatively complete (Said A. Salloum, 2019). Researches on e-learning were growing significantly from many years ago due to e-learning’s importance and implementation at universities all over the world. Despite many researches were done, the issues and challenges of successful e-learning implementation still remains as suggested in several studies (Puteh M, 2008; Selim H M, 2007; Zhang L, 2020).

The world has indicated a lack of research on e-learning acceptance, let alone China. Actually, China is in a harder condition. As Salloum (2019) suggested, e-learning system in developing countries has partially or entirely been unsuccessfully adopted. The survey of Chinese students’ e-learning acceptance is also scarce, and very few surveys on Chinese students’ e-learning acceptance show a negative picture. This increases the uncertainty of domestic e-learning acceptance and makes it more significant to research the acceptance of e-learning in China.

**2.2. Definition of e-learning and acceptance**

Previous study has helped to define two key concepts in our research, namely e-learning and acceptance. E-learning is a learning method based on the use of e-media and e-devices (Shalloum, et al., 2019). Its aim is to accept novel ways of comprehending learning and enhance availability of the training, communication and so on. The acceptance of e-learning, as Teo (2010) defined, refers to a user’s willingness to adopt and use technology for the tasks it is designed to support. In the light of Technology Acceptance Model, acceptance can be further divided into perceived usefulness and perceived ease of use, which respectively describe the degree to which one thinks a technology is useful and easy to use.

**2.3. Gap in Existing Knowledge**

Previous studies suggest a lack of researches on e-learning acceptance(Puteh M, 2008; Selim H M, 2007; Zhang L, 2020). This has been fulfilled in Chongqing University. According to our search results in CNKI and SSCI, there are no researches on the e-learning acceptance in CQU published. Our research makes up for this gap by deeply investigating the e-learning acceptance of freshmen in CQU.

**2.4 Theoretical Framework**

**2.4.1 Technology Acceptance Model**

The technology acceptance model (TAM) will be used as the core model in the research. TAM, first proposed by Davis in 1989, is a model pertaining to technology acceptance (Shalloum, et al., 2019), often used in conjunction with questionnaire and regression analysis(https://baike.baidu.com/). It successfully applied to various e-learning platforms acceptance (Yalcin, et al. 2019) and has proved its effectiveness over many other models (Shalloum, et al. 2019).

There are two variables in this model, namely the Perceived Usefulness(U) and Perceived Ease of Use(E). Perceived usefulness describes the degree to which a person thinks the technology is useful. Perceived ease of use describes the degree to which a person thinks the technology is easy to use. The former is affected by the latter. These two variables together influence users’ attitude toward using a system(A), and then influence behavioral intention to use(BI), which finally determine the actual system use(Shallum,et al. 2019). That’s how the dependent and independent variables in TAM work with each other.

Shallum also points out that five external factors extend TAM and can influence the two external variables, which include self-efficacy, subjective norms, enjoyment, computer anxiety and experience. These variables make sense in refining U and E to help making the questionnaire.

**2.4.2 Personal Interview**

The personal interview will be used to deepen the understanding of the acceptance of e-learning. It’s another method often used in researching the acceptance(https://biyelunwen.yjbys.com/). Personal interview is an one-on-one conversation on a topic, aimed at collecting the respondents' views on something or the reasons for making a decision. Compared with TAM, personal interview pays more attention to the psychological factors of the subjects. It significantly eliminates the influence of many irrational factors when filling in the questionnaire.

**2.5 Conclusion**

The reviewed literature suggests that the wide application of e-learning and the unsuccessfully adopted e-learning system in developing countries make it worthwhile to research the acceptance of e-learning in China. In Chongqing University, there’s a lack of surveys on e-learning acceptance in freshmen. Our research makes up for this gap by deeply investigating the e-learning acceptance of freshmen in CQU.

**3. Methodology(鲍逾峰，周玺成）**

**3.1 Subjects**

Our research subjects are freshmen in CQU who are in the same major with us. We plan to contain about 150 participants. The reasons why we choose them as our subjects are as follows. First, many previous studies show that students in developing countries intends to lack skills of e-learning, who just involve freshmen in CQU. Their e-learning condition worth researching. Second, changes of studying environment and content has just come to the freshmen, they need to change study method to fit in.

**3.2 Data collection procedure**

Basing on the TAM model, we mainly use two methods, questionnaire and personal interview to collect data.

In similar research conducted by Lee and Yoon (2009), researchers developed a five-point Likert scales to collect data from the sample. Likert scale is widely used in the questionnaire-based perception studies, and we will adopt the same method, using a five-point Likert scale to get the answer of each question.

The questions given to the subjects mainly focuses on external factors that may influence Perceived Usefulness (PU) and Perceived Ese of Use (PE) of the e-learning TAM. In the questionnaire, subjects will be asked to give a point to these items based on their usage of e-learning: “system and content quality”, “perceived enjoyment” “subjective norms” (corresponding to PU), and “computer anxiety”, “self-efficacy”, “experience”, (corresponding to PE).

For example, they’ll be asked “How often do you use the computer or others to learn?” for “computer anxiety” and “Have you ever felt enjoyed in the process of e-learning?” for “perceived enjoyment”.

The questionnaire will be distributed to participants through QQ and WeChat.

Besides the questionnaire, we will research more deeply through personal interview. In the personal interview, we will ask some students face to face for questions related to the questionnaire. The students are chosen randomly from freshman in CQU. The personal interview is strongly related to the questionnaire and can let us know more about the students’ acceptance of e-learning.

**3.3 Method of data analysis**

In the part of data analysis, we group use the method of regression analysis.

First, we will put the display page, e-learning convenience, e-learning efficiency and so on as independent variables, students' acceptance of e-learning as dependent variable. Then substitute the obtained data and write a regression equation. Finally draw a regression curve. Through the regression curve we can intuitively see the students' acceptance of e-learning.

**3.4 Other considerations**

The re are other considerations of our study. The survey results may contain students dislikes or even hates of e-learning, their true experience of e-learning and so on. These are their privacy, we’ll ensure these information to be protected so the correctness of collected data can insured and the authenticity of our research can be guaranteed.

**4. Proposed timeframes（梁雨欣）**

March to June 2022 is our reading period during which we refine our thesis topic, read and record existing literature and identify relevant primary sources.

In July we’ll make the questionnaire basing on our research objectives and main content then use it will conduct the survey on the Internet to collect data for the investigation and research using the methods stated before.

In August we’ll do the data analysis and write the first draft.

In September we’ll revise the draft and ask our tutor for some advice, then write the final draft and submit it.

**5. Expected outcomes （梁雨欣，吴泽骐）**

The overall aim of our study is to estimate the e-learning acceptance of CQU’s freshmen. The specific objectives are:

1) To estimate the freshmen’s ability to explore and make use of e-media and e-devices which are not required by tutors to improve learning efficiency and acquire knowledge and then draw a conclusion of their active acceptance.

2) To estimate the freshmen’s awareness of the necessary functions and their proficiency in the use of platforms which they are obliged to use and then draw a conclusion of their passive acceptance.

Based on research purposes, our expected results are roughly as follows:

1) First, we will get a set of data about our research purpose through the questionnaire. What forms of e-learning are acceptable (E-notes, Read online, Complete assignments and submit them online, Online classes, etc.).

2) Secondly, there is our analysis of these data. Data alone cannot tell you something, therefore, we need to use appropriate methods to process and analyze the data, and finally draw a conclusion corresponding to our research topic.

**6. Feasibility analysis （吴泽骐，梁雨欣）**

**6.1. Our existing research foundation**

The content of our study has previously been studied by a number of people, which can provide us with some valuable forward-looking experience. Our study re-defined e-learning on the basis of existing explanations about it (Cheng, 2011; Engelbrecht, 2005; Welsh, Wanberg, Brown, & Simmering, 2003). Our study will use the methods like the TAM given by the previous studies.

**6.2. Information preparation**

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

We collect data from students from the same major with us. We have the chance to get in touch with them. 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".

**6.3. Availability of the data**

1) First of all, all data will be collected and distributed to a large number of alumni through online questionnaires, ensuring the universality of data.

2) Secondly, as our questionnaire was filled in anonymously and its content was concise, the authenticity of the results was guaranteed.

3) Finally, all the data are completed by college students. The content of the questionnaire is closely related to college students' study and life, which makes the data obtained from the questionnaire highly usable.

4) It should also be emphasized that we will try to obtain as much data as possible to increase the sample size of the study so as to further guarantee the availability of data.

(2237 words)

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