

Predictors of English as a Foreign Language (EFL) Teachers' Acceptance of Online Teaching in Higher Education Institutions in China

Yanjun GAO*, Su Luan WONG, Mas Nida MD. KHAMBARI & Nooreen NOORDIN

Faculty of Educational Studies, Universiti Putra Malaysia, Malaysia

*jemimagao@163.com

Abstract: To better understand English as a Foreign Language (EFL) teachers' intention to adopt online teaching in China, six predictors are selected to examine the EFL teachers' intention to teach online based on the extended Technology Acceptance Model (TAM) in the study. This study adopts the correlational research design involving a minimum of 239 samples using the proportional stratified cluster sampling method. An online structured questionnaire will be administrated to collect data. Descriptive and inferential statistical analyses such as Pearson product-moment correlation and multiple linear regression (MLR) will be used to analyze the data.

Keywords: Online teaching, technology acceptance, EFL teachers

1. Introduction

Online teaching has become a prevalent delivery method because of its accessibility, affordability, flexibility, and learning pedagogy (Dhawan, 2020). Online education is providing its unique strength in teaching and learning given the diverse and increasing population in education.

Like many other parts of the world, online education has offered Chinese educators and learners' opportunities to impart and acquire knowledge innovatively. Online education was in its infancy as the Internet spread to China in the late 1990s. However, from 2006 to 2012, online education developed significantly due to better connectivity and fast Internet speed due to the improvement in networks and ICT up-gradation. With the rapid development in the IT industry around 2013, institutions started to offer synchronous courses. In 2018, with the swift improvement of the industry and the tightening of regulations, online education entered an initial stage of maturity in the country. The number of online education users increased to 232 million as of June 2019, which is 31.22 million more than that recorded by the end of 2018 in China (China Internet Network Information, 2019).

As far as college English teaching in China is concerned, the traditional teaching of foreign language education in higher education has also been greatly influenced by the online teaching development. Many policies were issued to encourage teachers to utilize ICT to establish online interactive teaching and learning for offering favorable learning environments and facilities for students' language learning (Ministry of Education, 2017). Previous research has shown its effectiveness of online teaching, such as facilitating students' interests, proving an authentic language environment for listening and speaking, and developing students' self-control in learning (Zou, 2013). However, despite positive effects of online teaching on transforming and shaping education (Chai et al., 2010) and the support from the educational administration, the lack of technical competence and confidence constrained English teachers to embrace online teaching. Additionally, the literature showed that English as a Foreign Language (EFL) teachers in Chinese universities were not receptive to online teaching (Teo, Huang, & Hoi, 2018).

For English language teachers in Chinese universities, there is a good chance to move their instruction fully online with the development of technology and the Internet as well as the online learning need of students. However, teachers are unsure about their ability to teach online and the

effectiveness of such a new mode of online language instruction (Gao & Zhang, 2020). How will EFL teachers in Chinese universities perceive and respond to their teaching when online teaching becomes the main mode of delivery? To what extent are they willing to adopt online teaching? Moreover, which factors will facilitate and impede them to accept this new teaching mode? It is a question that needs investigation urgently as the teachers' perceptions and responses to online teaching critically influence the quality of language education in Chinese universities.

2. Research Objective

As online education is gaining prominence, it is crucial to explore the factors predicting EFL teachers' acceptance of online teaching to implement online teaching in mainland China successfully. Therefore, to better understand Chinese EFL teachers' intention to adopt online teaching, the study is designed to determine EFL teachers' behavioral intention to teach online and investigate the conditions and factors affecting the teachers' behavioral intention to teach online. This study, therefore, intends to provide empirical evidence to the existing knowledge of online teaching by exploring EFL teachers' acceptance to teach online in Chinese higher education settings. Accordingly, the following research questions will be addressed:

1. What is the extent of EFL teachers' intention to teach online?
2. What are EFL teachers' attitudes; subjective norms; perceived ease of use; perceived usefulness; self-efficacy and facilitating conditions towards teachers' behavioral intention to teach online?
3. What are the relationships between EFL teachers' attitude; subjective norm; perceived ease of use, perceived usefulness; self-efficacy, and facilitating conditions with teachers' behavioral intention to teach online?
4. What is the proportion of the variance in teachers' behavioral intention to teach online can be explained by attitude; subjective norm; perceived ease of use, perceived usefulness; self-efficacy, and facilitating conditions?

3. Conceptual Framework

The Technology Acceptance Model (TAM) (Davis, 1989) will be adopted as the theoretical foundation for the study. TAM is a widely recognized and influential model to explain technology acceptance and adoption. King and He (2006) commented TAM as a powerful and robust model with the meta-analysis of 88 TAM studies. Davis (1989) first proposed TAM and was designed to model user acceptance of a given technology. Specifically, it traces the effect of the external determinants from cognitive and affective perspectives that influence the internal users' attitude and intention to explain technology acceptance and usage in a broad range of settings (Davis, Bagozzi, & Warshaw, 1989). It is a theoretical model to explore human social behavior (Safeena et al., 2013) by focusing on system characteristics (Al-Hajri, & Tatnall, 2008).

There are five components in the TAM model: perceived usefulness, perceived ease of use, attitude, behavioral intention, and actual system use. The TAM has been one of the most commonly accepted, used, extended, and empirically verified to explore technology adoption behaviour (Lee, Kozar & Larsen, 2003) with varying samples and cultures. Though the TAM has been evolving, the mainly accepted constructs in the extended TAM have kept stable including attitude, subjective norms, perceived ease of use, perceived usefulness, self-efficacy, and facilitating conditions (Mei, Brown, & Teo, 2018). Therefore, in the current study, the proposed research framework extends TAM to include subjective norm, self-efficacy and facilitating conditions, and main constructs of TAM — perceived usefulness, perceived ease of use, and attitude. There are six predicting factors in the conceptual framework: perceived ease of use, perceived usefulness, attitude, subjective norms, self-efficacy, and facilitating conditions as shown in Figure 1.

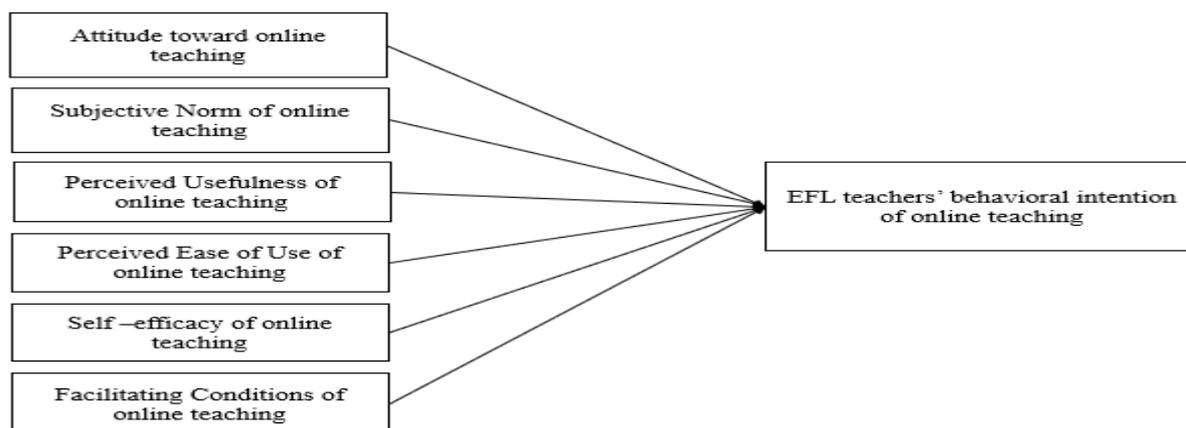


Figure1. Proposed Conceptual Framework

4. Research Methodology

4.1 Research Design

The study adopts a correlational research design to determine the relationships between the selected predicting variables and the dependent variable. The correlational research design is appropriate to use where the perceived relationships among several variables need examining (Ary et al., 2010). The correlational study for the current study is used to investigate the relationships of independent variables, including attitude, subjective norm, perceived usefulness, perceived ease of use, self-efficacy, and facilitating conditions to accept online teaching of English among foreign language teachers.

4.2 Population and Sample Size

EFL teachers from 29 public universities of Henan province are considered as the accessible population of this research. The total number is 2235 EFL teachers who conducted teaching in the academic year of 2019-2020. Based on Cochran's (1977) formula, the required minimum sample size is 239 for a population size of 2235. Multiple Linear Regression (MLR) is the main statistical technique to analyze the data for the study, therefore, the sample size should also meet the criteria of MLR. 20:1 of the participant per predictor for multiple regression analysis is preferred or strongly recommended (Hair et al., 2018). Therefore, 120 samples are preferred for the study ($20 \times 6 \text{ IVs} = 120$) for the multiple regression analysis. A general rule of thumb is to select as large a sample as possible from the population (Creswell, 2012), so a minimum of 239 samples will be included in the study.

4.3 Sampling Technique

Proportionate stratified cluster sample method will be used to select the participants of the study. First, considering the variations of universities in the characteristics of different types, the proportionate stratified sampling technique is used to ensure the population's representatives. The stratum is the type of universities including normal universities, comprehensive universities and universities of science and technology. Then, the universities as clusters are selected randomly using the fishbowl method from all universities. After the cluster universities are selected, all the teachers in the selected clusters are included in the sample.

4.4 Data Collection and Analysis

The data will be collected via an online structured questionnaire. The whole process of data collection

is planned to last eight weeks.

Descriptive and inferential statistical analyses will be conducted to address the aforesaid research questions. Specifically, it is appropriate to use descriptive statistical techniques to answer research questions 1 to 2 to explore the extent of EFL teachers' behavioral intention to teach online in terms of intention, attitude, subjective norm, perceived usefulness, perceived ease of use, self-efficacy and facilitating conditions. It is appropriate to use Pearson product-moment correlation to answer research question 3 to examine the relationships between all the predictors and dependent variable. It is appropriate to use MLR to answer research question 4 to determine how much variance of the dependent variable can be explained by the independent variables.

5. Proposed Contribution

Teachers' attitudes and behaviors play a critical role in online teaching. The study will significantly contribute to the existing knowledge relevant to online teaching within such a context by determining the factors that facilitate and constrain the teachers' acceptance of online teaching. In addition, the study will be of significance for the stakeholders such as educational administrators, school leaders, governments, policymakers, and teachers related to online education for better development of online education.

References

- Al-Hajri, S., & Tatnall, A. (2008). Technological innovation and the adoption of Internet banking in Oman. *The Electronic Journal for Virtual Organization & Networks*, 10, 59-83.
- Ary, D., Jacobs, L.C., Razaveih, A., & Sorensen, C. (2010). *Introduction to research in education (8th ed.)*. United Kingdom: Cengage Learning.
- Chai, C. S., Deng, F., Qian, Y., & Wong, B. (2010). South china education majors' epistemological beliefs and their conceptions of the nature of science. *The Asia-Pacific Education Researcher*, 19, 111-125.
- China Internet Network Information. (2019). *The 44th Statistical Report on the Development of China's Internet*. http://www.cnnic.net.cn/hlwfzyj/hlwxyzbg/hlwtjbg/201908/t20190830_70800.htm
- Cochran, W. G. (1977). *Sampling techniques (3th ed.)*. New York: John Wiley & Sons.
- Creswell, J. W. (2012). *Educational research. Planning, conducting and evaluating quantitative and qualitative results (4th ed.)*. Boston, MA: Pearson education, Inc.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly* 13(3):319—339.
- Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: A comparison of two theoretical models. *Management science*, 35(8), 982-1003.
- Dhawan, S. (2020). Online learning: A panacea in the time of COVID-19 crisis. *Journal of Educational Technology Systems*, 49(1), 5-22.
- Gao, L. X., & Zhang, L. J. (2020). Teacher learning in difficult times: Examining foreign language teachers' cognitions about online teaching to tide over Covid-19. *Frontiers in Psychology*, 11(6), 1-14.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2018). *Multivariate Data Analysis (8th ed.)*. United Kingdom: Cengage Learning.
- King, W. R., & He, J. (2006). A meta-analysis of the technology acceptance model. *Information & management*, 43(6), 740-755.
- Lee, Y., Kozar, K. A., & Larsen, K. (2003). The technology acceptance model: Past, present, and future. *Communications of the Association for Information Systems*, 12(50), 752–780.
- Mei, B., Brown, G. T., & Teo, T. (2018). Toward an understanding of preservice English as a Foreign Language teachers' acceptance of computer-assisted language learning 2.0 in the People's Republic of China. *Journal of Educational Computing Research*, 56(1), 74-104.
- Ministry of Education of the People's Republic of China. (2017). *Guidelines on college English teaching in china*. Beijing: MOE.
- Safeena, R., Date, H., Hundewale, N., & Kammani, A. (2013). Combination of TAM and TPB in internet banking adoption. *International Journal of Computer Theory and Engineering*, 5(1), 146.
- Teo, T., Huang, F., & Hoi, C. K. W. (2018). Explicating the influences that explain intention to use technology among English teachers in China. *Interactive Learning Environments*, 26(4), 460-475.
- Zou, B. (2013). Teachers' support in using computers for developing students' listening and speaking skills in pre-sessional English courses. *Computer Assisted Language Learning*, 26(1), 83-99.