Third-Level Digital Divide in English Teaching and Learning

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ABSTRACT

This article describes how information and communication technologies (ICT) are growingly important in English teaching and learning. Based on the model of digital divide, this article focuses on the third-level digital divide. Through interview and large-scale survey by using a questionnaire designed based on a digital divide model, this article attempts to determine the gender differences in the third-level digital divide in English teaching and learning, together with correlations between attitude toward ICT, educational level and economic status. It is concluded that (1) there are significant gender differences in the third-level digital divide in English language learning and teaching; (2) there is a significant positive correlation between attitudes toward ICT and the third-level digital divide in English learning and teaching; (3) there is significant positive correlation between educational level and third-level digital divide in English learning and teaching; (4) there is significant positive correlation between economic status and the third-level digital divide in English learning and teaching. Advantages and disadvantages of this article and future research directions were also discussed.

KEYWORDS

Attitude Toward ICT, Economic Status, Educational Level, English Teaching and Learning, Gender Difference, Third-Level Digital Divide

INTRODUCTION

Information and communication technologies (ICT) are playing an increasingly important role in English teaching and learning. Teachers hold positive attitudes toward use of ICT in education (Hernández-Ramos et al., 2014). Recent research has shown that student use of ICT in teaching practice is necessary for effective future use of ICT in the classroom (Galanouli and McNair, 2010). The improvements on ICT literacy have been considered an essential task for educational institutes to prepare learners for academic achievements, upcoming professional success, and lifelong career satisfaction (ISTE, 2007; OEDC, 2005).

ICT literacy for educational purpose has been defined as the ability to access, manage, integrate, evaluate, and create information for a role in knowledge (International ICT Literacy Panel, 2002, p. 2), to research, organize, evaluate and communicate information, and to understand fundamental ethical or legal issues of information (Partnership for 21st Century Skills, 2007, p. 1). ICT literacy has been considered a critical task of educational institutes to prepare students for future development.

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ICT literacy improvements require educational organizations to provide ICT for teachers to use in teaching process and for students in learning process. Convenient access to ICT in educational organizations such as universities is important. Beyond universities, however, there may be differences in access to ICT due to different economic conditions. Economically advantaged learners may possess better ICT access than economically disadvantaged peers.

THEORETICAL FRAMEWORK

The Digital Divide was defined as a gap between those accessing new information technologies and those who did not. The term also characterized the differences between people effectively using ICT and those who cannot effectively use ICT (Sipior et al., 2002).

Economic considerations that should be taken into account when evaluating the impact on the digital divide (Connolly et al., 2017). Lower economically developed areas may be less ICT supported compared with higher developed areas. The theoretical framework of this study is built on digital divide, where three levels of ICT-aided learning conditions are illustrated in Figure 1 (Hohlfeld et al., 2008).

As shown in Figure 1, the theory of digital divide separates ICT-aided learning into three levels, i.e., educational infrastructure, use of ICT in the classroom and individual student use of ICT.

The major concern of Level One is the infrastructure of educational institutes, such as the expenditure on ICT, the budget, the hardware arrangements, software alignment, the cable and wireless Internet connection.

ICT could empower teachers and learners, foster the development of educational policies and skills, improve teaching and learning processes, involve students in learning activities, intensify learning interest; academic staff believe that ICT could facilitate communication between teachers and students, reduce teaching pressure and integrate teaching contents into discussion (Alammary, 2012). The infrastructure of ICT is therefore important for its use in teaching and learning.

Level Two focuses on frequency of use of ICT by teachers and students, which mainly takes place in the classroom. The digital divide on this level has been studied by Hillier (2017), where

Figure 1. Three levels of digital divide
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