Available online at www.sciencedirect.com

ScienceDirect

Procedia - Social and Behavioral Sciences 231 (2016) 278 – 285

Procedia Social and Behavioral Sciences

International Conference; Meaning in Translation: Illusion of Precision, MTIP2016, 11-13 May 2016, Riga, Latvia

Relationship of Internet self-efficacy and online search performance of secondary school teachers

Agnese Karaseva*

University of Tartu, Lossi Str. 36, Tartu, 51003, Estonia; Vidzeme University of Applied Sciences, Cesu Str. 4, Valmiera, LV–4200, Latvia

Abstract

This exploratory mixed-method study aims to examine relationships between secondary school teachers' perceived Internet self-efficacy and a vital aspect of e-skills for the knowledge society, namely, information search performance online. Sixteen teachers of humanities, science and mathematics) were interviewed about their Internet self-efficacy, and then ten of them completed eleven predefined online search tasks. The results indicate that teachers' perceived Internet self-efficacy neither correlated with their actual search performance nor was it related to the search strategies that teachers applied. Teachers over-estimated difficulty of search tasks before starting a search. Based on the study results, implications for in-service teacher training are discussed.

© 2016 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

Peer-review under responsibility of the organizing committee of MTIP2016

Keywords: E-skills; online search performance; Internet self-efficacy; secondary school teachers.

1. Introduction

The use of digital technology has become an inseparable part of the teacher's work at all levels of education. Innovative applications of a variety of technological tools, such as mobile phones, TV and the Internet, have opened up new ways of e-learning to complement traditional classroom face-to-face instruction (Kapenieks et al., 2014). This ultimately raises the question of teachers` e-skills, particularly their skills in handling various online resources, especially knowing that most search mechanisms and digital information resources are not created specifically for educational purposes, i.e. most collections online are fragmentary, and information often varies in quality, accuracy

* Corresponding author. Tel.: +37164207230; fax: +37164207229.
E-mail address: agnese.karaseva@va.lv

1877-0428 © 2016 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).
Peer-review under responsibility of the organizing committee of MTIP2016
doi:10.1016/j.sbspro.2016.09.103

and scope. This mixed-method exploratory study focuses on teachers` online search performance and examines its relationship to teachers` perceived Internet self-efficacy. Three research questions inform the study:

1) How do teachers of science, mathematics and humanities perceive their Internet self-efficacy?
2) What search strategies do teachers apply in online searching?
3) How are teachers' perceived Internet self-efficacies related to their actual search performance?

Methodologically this study contributes to the limited number of studies on teachers` Internet skills, which are not only guided by self-reported data, but also combine this data with an analysis of the actual search behavior of teachers (see e.g. Albion, 2007, & Rieger, 2009).

2. Theoretical background

2.1. Internet self-efficacy of teachers

The concept of Internet self-efficacy (Compeau, & Higgins, 1995; Hargittai, 2006) is an important extension of the initial concept of human self-efficacy proposed by Bandura (1982), and suggests that people often do not behave optimally even if they know very well what to do. This is due to the fact that self-referent thoughts mediate the relation between knowledge and action (Bandura, 1982). People who find the Internet difficult to use and have little confidence in their skills to use online resources may be said to have a low level of self-efficacy beliefs.

Despite the fact that in-service teachers report being active users of the Internet (Kabakçı, Fırat, İzmirl, & Kuzu, 2010; Karaseva, Pruulmann-Vengerfeld, & Siibak, 2013) and previous studies have found that teachers use various online resources as their primary sources of information (Shipman, Bannon, & Nunes-Bufford, 2015), teachers often evaluate their search experience as being rather unsatisfactory. Unsatisfactory search experiences decrease teachers' motivation to retrieve information online (Perrault, 2007), and cause teachers to stick to a few educational sites designed specifically for particular subject teaching (Carlson, & Reidy, 2004), or to give preference to information sources in print format (Korobili, Malliari, Daniilidou, & Christodoulou, 2011). To build Internet self-efficacy, positive previous experience and success in search task completion have been found to be the most powerful sources among teachers (Pan, & Franklin, 2011; Robertson, & Al-Zahrani, 2012). However, high Internet self-efficacy does not always predict good e-skills and online search performance, as was shown in a study by Albion (2007).

2.2. Online search strategies

Online search outcomes largely depend on the chosen search strategy, which represents the ways people deal with information online and distinguish between correct and false information (Zhu, Chen, Chen, & Chern, 2011). Three distinctive online search strategies exist: 1) The top-down strategy, where searchers start with a few general keywords, and then narrow the search by using more precise keywords until the necessary information is found; 2) The bottom-up strategy, where searchers look for specific keywords, and then review the returned results until the needed information is found; 3) The mixed strategy, where searchers combine both top-down and bottom-up approaches according to their information needs (Navarro-Prieto, Scaife, & Rogers, 1999).

A typical Internet user relies on the top-down strategy by entering two words per query on average (Singer, Norbisrath, & Lewandowski, 2012). If the result does not satisfy the user`s needs, typically one word is added or deleted from the initial query to continue the search. This shows that users follow a trial-and-error approach instead of trying to use advanced search options (Haglund, & Olson, 2008).

It has been argued that high self-efficacy may help an individual to develop better web search strategies and support information selection and evaluation, facilitating the individual's performance online (Tsai, & Tsai, 2003). Low self-efficacy, on the contrary, has proved to be related to fear of failure and not being able to locate the necessary information (Ford, Miller, & Moss, 2005).

Download English Version:

https://daneshyari.com/en/article/5126321

Download Persian Version:

https://daneshyari.com/article/5126321

Daneshyari.com