Construct Reliability and Validity of the Shortened Version of the Information-Seeking Behavior Scale

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ABSTRACT

This study aimed to translate the information-seeking behavior scale from English to Thai, and to ascertain the construct reliability and validity of the scale. Data were collected from 664 undergraduate students in Thailand. The descriptive statistics were explored to see the extent to which various information sources are being used by undergraduate students. The researchers conducted Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) for the 33 Likert-type items. Results from EFA suggested the elimination of some items and results from CFA confirmed the validity of the scales. The shortened version was comprised of three constructs: ‘regulation activities when applying search strategies’ (five items), ‘regulation activities when evaluating information on websites’ (four items), and ‘referring to information’ (four items). Educators and researchers may find this shortened version of the scale as a useful tool to assess students’ information-seeking behavior.

KEYWORDS
Construct Validity, Information Literacy, Information-Seeking Behavior, Reliability, Thailand, Undergraduate

INTRODUCTION

In the information age, advanced technology has led to the birth of an information-based society. People must be able to master the effective and efficient use of information. Information literacy skills have been emphasized to all students in higher education. Even though students are expected to be information literate, studies have shown that students commonly have trouble formulating keyword searches in unfamiliar content areas (Bos et al., 2000) and seem to rely on one-keyword searches to find the answers to all their questions (Timmers & Glas, 2010).

Research studies have accentuated the importance of information literacy and self-regulated learning skills as the key to success in the information-based society (Kurbanoglu, Akkoyunlu, & Umay, 2004; Timmers & Glas, 2010). There has been a continual increasing interest in assessing students’ information literacy, especially in aspects such as information literacy self-efficacy (Kurbanoglu et al., 2004), information-seeking behavior (Timmers & Glas, 2010), and motivation engagement and self-efficacy (Pinto, 2010).

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At the Thai university where the data for this study were collected, university graduates are required to be information literate. The content of information literacy courses at most universities follows the two international standards: (1) ACRL’s Information Literacy Competency Standards for Higher Education and (2) SCONUL’s Seven Pillars of Information Literacy (Taumsuk, 2013). Graduate students should be able to identify information needed, seek information, access and evaluate information, and be aware of ethical issues regarding information use. As described by Boon, Johnson, and Webber (2007), “One step towards becoming information literate is to acquire an appropriate information-seeking behavior” (p.207). There are some studies in Thai contexts that investigate information-seeking behavior by using different tools. For example, Patitungkho and Deshpande (2005) used a survey questionnaire to obtain descriptive results of information-seeking behavior among faculty members, by asking about the method and purpose of seeking information, sources used, and problems encountered when seeking information. Another descriptive study investigated students’ information-seeking behaviors in everyday life and presented the results with regard to three aspects: topics searched, sources used, and difficulty in the searching process (Waiyahong, 2013). In 2014, a study investigated how information-seeking behavior among Thai youths was related to their learning styles. Researchers asked the respondents to use their own words to express their experiences when seeking information by focusing on four aspects: defining problems, selecting sources of information, accessing information, and evaluating information (Changthong, Manmart, & Vongprasert, 2014). Noticeably, past studies in Thai only used one item to investigate and report the descriptive results of Thai students’ information-seeking behavior. The body of research in Thai still needs validated tools to assess this information-seeking behavior.

Purposes of the Study

The purposes of this study were to (a) translate the information-seeking behavior scale (Timmers & Glas, 2010) from English to Thai, (b) ascertain the reliability and validity of the Thai version, and (c) analyze the equivalencies between the English and Thai versions. The researchers chose the scale developed by Timmers and Glas (2010) because this scale covers the aspects of information literacy content as seen in Thai tertiary education as mentioned earlier (information seeking, information accessing, information evaluation, and ethical issues).

METHODOLOGY

Research Setting and Design

All Thai graduate students are required to be able to seek, access, evaluate information, and be aware of ethical issues regarding information use. The data should be collected from various fields of undergraduate students. Therefore, the research setting in this study was a private university near Bangkok where there is a wide range of undergraduate programs. This study followed a quantitative research design. Factor analysis allowed the researchers to test the hypothesis that a relationship between the observed variables and their underlying latent constructs exists. The approach was chosen given that the purpose of the research was to ascertain the reliability and validity of the Thai version of information-seeking behavior scales.

Participants

The target population for this study was undergraduate students in universities in Thailand. Convenience sampling, a type of non-probability sampling technique, was used in this study. It may be argued that this sampling technique cannot represent the population (O’Leary, 2004) because it is not based on probability method; however larger sample size generally leads to increase precisions and practically assures statistical significance. Even though having some weaknesses, convenience sampling method was used in this study due to its strengths which are less time and money requirement, easily administration, and highly participant rate (Schreiber & Asner-Self, 2011). The researchers
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