



Evidence Summary

Learners with Low Self-Efficacy for Information Literacy Rely on Library Resources Less Often But Are More Willing to Learn How to Use Them

A Review of:

Tang, Y., & Tseng, H. W. (2013). Distance learners' self-efficacy and information literacy skills. *The Journal of Academic Librarianship* 39(6): 517-521. doi:10.1016/j.acalib.2013.08.008

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Abstract

Objectives – To determine whether there is a relationship between self-efficacy (i.e., confidence) regarding information literacy skills and self-efficacy for distance learning; and to compare the use of electronic resources by high and low information literacy self-efficacy distance learners and their interest in learning more about searching.

Design – Online survey.

Setting – A small public university in the United States of America.

Subjects – Undergraduate and graduate students enrolled in one or more online courses. Most respondents were in their

twenties, 76% were female, 59% were undergraduates, and 69% were full time students.

Methods – Students were asked six demographic questions, eight questions measuring their self-efficacy for information literacy, and four questions measuring their self-efficacy for online learning. All self-efficacy questions were adapted from previous studies and used a one to five Likert scale. The response rate was 6.2%. Correlational analysis was conducted to test the first two hypotheses (students who have higher self-efficacy for information seeking are more likely to have higher self-efficacy for online learning and for information manipulation). Descriptive analysis was used for the remaining hypotheses, to test whether students who have

higher information literacy self-efficacy are more likely to have high library skills (hypothesis three) and are more interested in learning about how to use library resources (hypothesis four). Among respondents high information literacy self-efficacy and low self-efficacy groups were distinguished, using the mean score of information literacy self-efficacy.

Main Results – There was a significant correlation between self-efficacy for information seeking and self-efficacy for online learning ($r = .27$), as well as self-efficacy for information manipulation ($r = .79$). Students with high information seeking self-efficacy were more likely to use library databases (28.72%), while low self-efficacy respondents more often chose commercial search engines (30.98%). However those respondents were more likely to be interested in learning how to use library resources.

Conclusion – Distance students with higher self-efficacy for information seeking and use also had higher self-efficacy for online learning. It is important to encourage such self-efficacy since studies have shown that it relates to better information literacy skills and a higher ability to be self-regulated learners. Confident learners process information, make effective decisions, and improve their learning more easily. Furthermore many respondents in this survey had little or false knowledge of how to use appropriate resources for their learning needs. This points to the need for effective library instruction. This study also shows that low self-efficacy students would like to have library instruction, especially to help them plan specific research assignments.

Commentary

Research about self-efficacy, namely people's judgments about their ability to complete tasks and succeed, has long been of interest to librarians who seek to engage students in information literacy (IL) instruction. This study examines the self-efficacy levels of online learners, and especially the relationship between self-efficacy in IL and in online learning – a form of learning that requires

strong self-regulation from students. Particularly interesting is the finding that lower IL self-efficacy students are generally more motivated to learn about it. Thus self-efficacy may have important implications for students' motivations to learn, and for librarians' design of online instructional objects. In their survey, Tang & Tseng measured self-efficacy by asking respondents to agree or disagree with statements about their own abilities. This is an easy method, but the reliability of the scales used is not mentioned.

This study suffers from several weaknesses. First, it relies on a dated and incomplete literature review. For example, it uses a 2000 study to provide evidence that instruction sessions boost self-efficacy regarding the use of electronic resources (Ren, 2000). Furthermore it ignores the numerous studies that indicate negative relationships between self-efficacy and achievement, including recent research from the Attaining Information Literacy Project on student self-views, which shows that self-efficacy is stronger among students with lower abilities and is not a predictor of success (Gross & Latham, 2012). Although they do not target distance learners, such findings complicate the picture shown by the studies cited in the literature review, and even contradict it.

One limitation of this study is that it connects self-efficacy to actual skills or improved performance without testing the skills. For hypothesis three, the authors assume that higher self-efficacy students have superior library skills because they selected library resources more often in the survey question about their go-to resources. While this choice is intriguing, a self-selected answer about preferred resources does not measure library skills, rather awareness of library resources.

Furthermore, the authors perhaps overstate the link to research that finds that individuals with higher self-efficacy learn more easily. A statement from Kurbanoglu (2003) that high self-efficacy results in self-regulated learning – quoted once in their article and later repeated in conjunction with their own study results (p.

519, 520) — leads the authors to conclude that improving self-efficacy leads to better learning outcomes, but this is not demonstrated by the study.

Gross & Latham's recent findings (2012) from the Attaining Information Literacy Project are bolstered by psychology research that showed that lesser skilled people tend to overestimate their abilities more than more highly skilled individuals, because the former lack the metacognitive competence to effectively evaluate their own skill level (Ehrlinger, Johnson, Banner, Dunning, & Kruger, 2008; Kruger & Dunning, 1999). Librarians should look more deeply at the connection between self-efficacy, motivation to learn, and effective learning, to design online instruction that motivates both low and high self-efficacy students.

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