Understanding the effect of digital literacies on the reading ability of English major students in the context of tertiary education

Background

Due to the infusion of technology in education, the learning and teaching processes are changing enormously, including in the area of second language acquisition. The relationship between language education and digital literacy has attracted research, but there is a relative lack of research on the impact of digital literacy on adult students' reading ability.

Research question

What are the relationships between self-perceived knowledge, skills, attitudes towards digital literacies and actual digital competencies?

Objectives

The current data were used to investigate relationships between aspects of digital literacy. By understanding the present digital competencies of English major students, any gaps may be revealed to inform both language learners and educators to better adopt technologies in language acquisition. Further data collection will include a measure of English reading comprehension to investigate relationships between digital literacy and English language ability.

Methodology

41 English-major students from a Chinese university constructed the pilot sample. The average age was 20, and 80% were female. Data were collected from a Digital Literacies Test that asked questions about different aspects of using digital tools and the features of such tools. The same participants completed a questionnaire that asked them to self-rate their knowledge, skills and attitude towards digital literacy. These pilot participants were from a similar course as those planned for the main data collection study.

Analysis

Figure 1 shows that there were positive correlations between the three areas covered in the questionnaire. In particular, skills and attitudes were highly correlated, suggesting that those with self-assessed good skills also had a positive attitude towards digital literacy areas. However, all three questionnaire scales showed a negative correlation with test scores. Although these were small correlations for the skills and attitude scales, there was a large negative relationship between self-reported knowledge and digital literacy test scores. This suggests that those who think they know a lot about digital tools, procedures and functions may not. Those who realise they do not know much may actually know more.

Figure 1. Correlation of Self-perceived Digital Literacies Knowledge, Skills, Attitudes and Digital Literacies Test

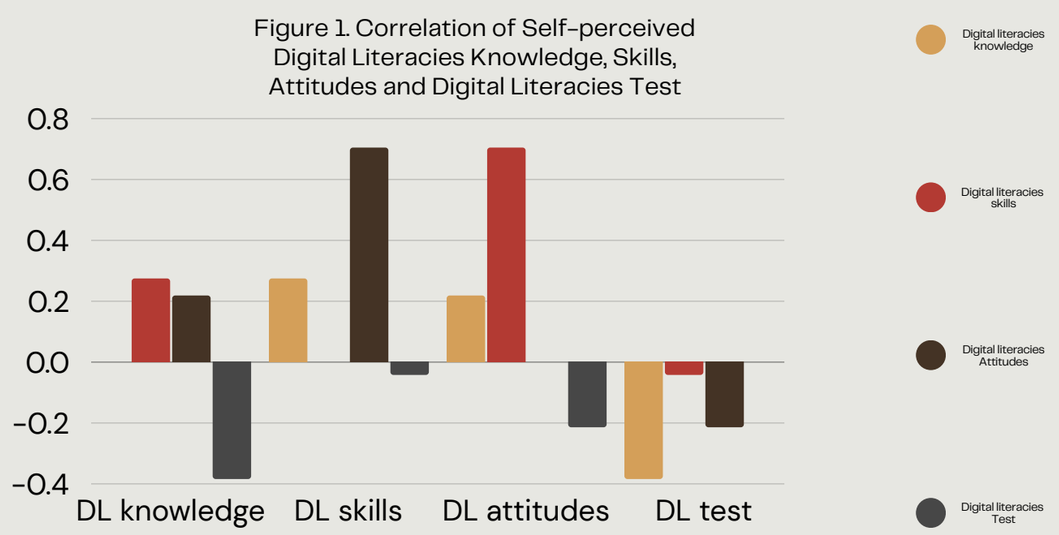

Figure 2. Descriptive Analysis of Self-perceived Digital Literacies Knowledge, Skills, Attitudes and Digital Literacies Test

	DL knowlege	DL skills	DL attitudes	DL test
Mean	2.57	2.67	2.93	11
Std. Dev	0.68	0.6	0.56	3.8
Range	3	2.08	2.18	17

Analysis

Figure 2 shows the average scores, with standard deviations and ranges, for each of the four scales in the study. For the questionnaire, a higher score (between 2.6 and 2.9) indicates higher self-assessed knowledge, skills, and attitude. Overall, these pilot participants seemed more positive than negative in each of the three questionnaire scales (the average scores being above the mid-point for the scales). The mean score of the digital competency test was in the low range compared to the maximum score of 25, which may suggest these participants did not perform well on the test.

Results

The average scores of participants' self-perceived knowledge, skills and attitudes were at a high level of digital literacy. The correlation between digital literacies knowledge and the digital literacies test is negative, while the self-perceived skills are highly positive with attitudes. The negative correlation between digital literacies knowledge and the digital literacies test score might suggest that students with higher self-perceived knowledge tend to have lower test scores in this pilot group. However, digital literacies skills have a strong positive correlation with attitudes, meaning students with higher self-rated skills scores tend to have more positive attitudes towards digital literacies.

Conclusion

These pilot data can be interpreted as participants showing a positive perception of their knowledge/skills related to digital literacy. This may suggest that they feel competent in their ability to perform tasks involving digital literacy skills. Their positive attitudes may also suggest a willingness to use such tools in language learning contexts. However, the current results also suggest an inconsistency between these self-perceptions and the students' tested knowledge of digital literacy tools, procedures and functions. This may be due to the wide adaptation of digital technology in daily life yet limited and less guided application in learning that influences students' digital literacy practice.

Related literature

Al Seghayer, K. (2020). Investigating the Adequacy of EFL Learners' L2 Digital Literacy Skills, Consistency of Self-Assessed Competence, and Actual Performance: International Journal of Computer-Assisted Language Learning and Teaching, 10(2), 1–22.

Nguyen, L. A. T., & Habók, A. (2022). Digital Literacy of EFL Students: An Empirical Study in Vietnamese Universities. Libri, 72(1), 53–66.

Son, J.-B., Park, S.-S., & Park, M. (2017). Digital literacy of language learners in two different contexts. The JALT CALL Journal, 13(2), 77–96.

Acknowledgement

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Images are used from the following sources:
https://www.freepik.com/free-photo/woman-using-vr-simulator-library_5890248.html
https://www.canva.com/design/DAGH35I-v0g/b5qfg_fLr663NM61Nm369Q/edit

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