

Exploring Digital Literacy in ESP Tourism Presentations Using Importance-performance Analysis

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Abstract

This study investigates the development of digital literacy in ESP tourism education using Importance-Performance Analysis (IPA). A pre-post survey and semi-structured interviews were conducted after the course with 32 undergraduates enrolled in a Digital Tourism English course. Results revealed significant gaps in self-regulation and information literacy, while AI and multimodal literacies improved. The IPA matrix identified clear instructional priorities, highlighting the need for systematic support. The study suggests integrating Bloom's Digital Taxonomy to enhance critical thinking and proposes pedagogical implications for tourism English instruction.

Keywords: ESP, digital literacy, tourism English, importance-performance analysis, Bloom's digital taxonomy

Background

The global tourism industry's digital transformation has reshaped how services are delivered and how clients interact. Kraus et al. (2022) demonstrate that these changes improve efficiency and enhance customer experience. Consequently, tourism professionals are required to manage booking systems, curate content for destination websites, and respond to customer needs through digital platforms.

In response, educational institutions are responding by integrating digital competencies into Tourism English instruction. Chang (2024) emphasizes that proficiency in English and digital literacy have become essential competencies,

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with technology playing a crucial role in optimizing language learning and professional performance in specialized ESP education.

Digital literacy, as defined by Gilster (1997), involves understanding and using information in multiple formats from various digital sources. Contemporary frameworks identify key components including information, search, ethical, critical, and expanded digital literacy (Morgan et al., 2022; Pegrum et al., 2022). While digital literacy enhances classroom engagement (Morgan et al., 2022; Kirovska-Simjanoska, 2022), students often lack critical evaluation skills. In Tourism English, digital literacy positively impacts destination promotion and intercultural communication (Ritonga, 2023; Dabić, 2017).

However, few studies have applied pedagogical frameworks to Tourism English digital literacy. While Bloom's Taxonomy has proven effective in enhancing critical thinking in ESP contexts (Vavilina, 2020; Bilonozhko, 2023), research examining the gap between perceived importance and actual performance of digital literacy in tourism English contexts remains limited. This study examines how students perceive and develop digital literacy competencies within ESP tourism education, using Importance-Performance Analysis to identify areas where students need additional support. The study addresses three research questions.

1. To what extent do importance and performance ratings of digital literacy skills differ between pre- and post-tests?
2. What patterns emerge in the importance-performance relationships of digital literacy components using IPA in pre- and post-test data?
3. How do students perceive different digital literacy components in Tourism English instruction?

Methodology

This mixed-methods study employed a pre-post survey design with 32 undergraduate students enrolled in a Digital Tourism English course. The course comprised two main components: conversation practice and theoretical study. Students were required to explore professional tourism terminology while examining official tourism websites, developing both language skills and digital literacy.

The instructional design was based on previous research demonstrating that systematic application of Bloom's Digital Taxonomy enhances critical thinking and reduces student anxiety (Vavilina, 2020; Bilonozhko, 2023). Previous research shows that students can use digital tools effectively but

often lack critical evaluation skills (Morgan et al., 2022). A structured presentation development process was therefore implemented to address this issue. Accordingly, students progressed through six cognitive levels (Remember to Create) from basic information retrieval to critical evaluation and multi-modal presentation creation. Reflective learning logs helped students track their source selection and develop critical evaluation skills, while students were required to use English-language websites for information literacy practice.

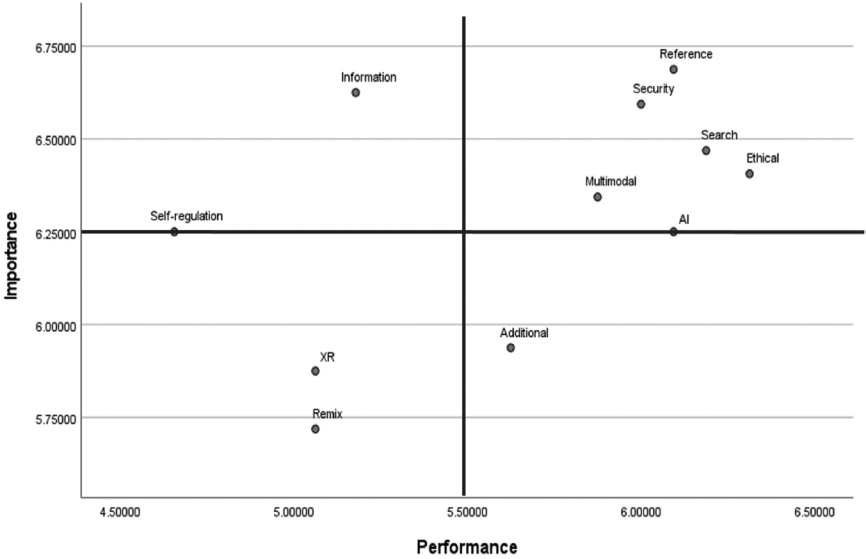
Pre- and post-surveys measured students' perceived importance and performance across 11 digital literacy attributes using 7-point Likert scales (Pegrum et al., 2022). Quantitative data were analyzed using paired t-tests and Importance-Performance Analysis (IPA). The IPA created a four-quadrant matrix by plotting importance against performance to identify priority areas (Martilla & James, 1977). Semi-structured interviews were conducted with all participants and analyzed using Miles and Huberman's (1994) three-phase process.

Representative Results

Research Question 1 examined differences between importance and performance ratings across pre- and post-tests. Self-regulation demonstrated the most substantial gaps in both measurements (pre-test: $d = 1.656$, $p < .001$; post-test: $d = 1.594$, $p < .001$). Information literacy gaps increased from pre-test ($d = 0.75$, $p = 0.032$) to post-test ($d = 0.906$, $p < .001$). Conversely, AI literacy progressed from no significant gap in pre-test ($p = 0.914$) to ratings being aligned in the post-test. Multimodal literacy also improved, with the initial gap ($d = 0.469$, $p = 0.033$) narrowing substantially.

Research Question 2 explored IPA matrix patterns. The post-test analysis positioned Search, Ethical, Reference, and Security literacies in the "Keep up the good work" quadrant (high importance, high performance). Self-regulation and Information literacy occupied the "Concentrate here" quadrant (high importance, low performance). XR and Remix literacies fell into the "Low priority" quadrant, while AI and Multimodal literacies moved into the "Possible overkill" quadrant.

Research Question 3 investigated student perceptions through qualitative analysis. Participants expressed enthusiasm for XR's immersive potential, noting the appeal of being able to "travel without leaving our seats" (N9), while voicing concerns that "actual travel will decrease" (N15, N25, N27). Regarding AI literacy, students appreciated practical benefits but raised ethical concerns about "small business owners" (N1, N2, N3).



(Reproduced from Lee & Lee, 2024)

Figure 1. Post-test IPA chart for 11 parameters

Conclusion and Discussion

The findings highlight the significant role of digital literacy in ESP tourism education. The persistent self-regulation gaps, despite successful alignment in AI and multimodal literacies, indicate that while digital natives recognize competency importance, they struggle with practical implementation (Spante et al., 2018). These results emphasize the need for systematic self-regulation programs in ESP tourism education.

The IPA results provide clear educational priorities. Self-regulation’s placement in the “Concentrate here” quadrant reveals the need for immediate intervention, aligning with Kirovska-Simjanoska’s (2022) findings on student focus challenges in digital environments. Search and ethical literacy positioned in “Keep up the good work” demonstrate adequate capabilities, while XR’s low priority reflects current limited tourism applications.

Qualitative analysis revealed student recognition of XR’s immersive value alongside concerns about replacing actual travel experiences. Regarding AI literacy, students acknowledged convenience while raising ethical concerns about corporate manipulation. These findings suggest balanced technology integration emphasizing both technical competency and ethical judgment.

This study demonstrates how Bloom's Digital Taxonomy provides a structured framework for ESP tourism education. However, the single-university sample limits generalizability. Future research should include multiple institutions and diverse departments to expand digital literacy frameworks across technological competencies.

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