

INSTRUCTIONAL DESIGN IN PRACTICE: CONTRIBUTIONS TO THE STRUCTURING OF ONLINE COURSES FOR WOMEN ENTREPRENEURS

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Abstract

The growth of female entrepreneurship in the context of online education has driven the creation of digital courses as a strategy for sharing knowledge and generating income. However, many female entrepreneurs face difficulties in pedagogical organization, content structuring, and defining effective teaching-learning strategies. In this context, Instructional Design (ID) emerges as a methodology capable of supporting the systematic and pedagogical design of online courses. The present study aims to analyze how the application of Instructional Design contributes to the organization, content development, and definition of teaching-learning strategies in the creation of online courses by women entrepreneurs. Methodologically, the study adopts a quantitative approach, using questionnaires before and after specific training in Instructional Design, aimed at women entrepreneurs with previous experience in digital content production. The results show that the use of Instructional Design principles promotes greater clarity in the definition of objectives, better sequencing of content, and more appropriate choices of pedagogical strategies and technological resources. It is concluded that Instructional Design is a relevant tool for improving the quality of online training developed by women entrepreneurs, contributing to pedagogical effectiveness, the sustainability of courses, and the promotion of female entrepreneurship in the digital context.

Keywords: *Instructional design, online courses, women's entrepreneurship, digital education, teaching-learning strategies.*

1. Introduction

The contemporary educational landscape has been profoundly transformed by globalization and digitalization, driving demand for new learning modalities and greater flexibility (Nkoa & Song, 2023). This phenomenon has also fostered the growth of digital entrepreneurship, particularly among women, who view the digital education market as an opportunity for financial independence (IBQP, 2018).

In this context, women's entrepreneurship involves not only creating and managing one's own businesses, but also overcoming social and cultural barriers, as well as affirming gender equality within the entrepreneurial ecosystem.

However, several studies have shown that this trajectory is marked by structural challenges. Santos et al. (2023) emphasize that numerous obstacles to developing educational businesses in the digital environment—especially in online formats—persist due to inadequate pedagogical and technological guidance. These constraints add to the well-documented difficulties faced by women entrepreneurs, including balancing personal and professional responsibilities, limited access to credit and support networks, and limited training opportunities. Thus, it becomes evident that women's digital entrepreneurship should be understood as a complex process influenced by multiple factors, which calls for methodological strategies that support both pedagogical organization and the informed use of educational technologies.

Although many women have strong technical expertise in their fields, they often face the challenge of transferring offline knowledge into structured digital learning experiences. However, the lack of a solid pedagogical foundation often leads to the improvised use of formats and tools not designed for educational purposes, affecting the coherence of learning pathways and learning outcomes.

The literature (Azevedo et al., 2024; Filatro, 2020; Filatro & Piconez, 2004), indicates that creating effective courses requires more than content expertise; it requires a pedagogical foundation that supports the development of meaningful learning. This calls for reflection, discussion, and, above all, relevant considerations for addressing and examining the topic.

Within this framework, Instructional Design (ID) emerges as an approach that guides women entrepreneurs in systematically designing courses by aligning objectives, content, strategies, and resources. As Filatro (2008) argues, ID constitutes a body of knowledge oriented toward the planning and theorization of instructional strategies. Rodrigues et al. (2024) further emphasize that what truly makes this approach a powerful tool is its capacity to empower, plan, and structure courses and training programs that meet learners' needs, while remaining attentive to the specific demands of each woman entrepreneur. Based on this perspective, the following research question was defined: How does ID influence the creation of online courses developed by women entrepreneurs?

The general objective was to analyze the impact of applying ID methodologies on the autonomy and quality of online course production by women entrepreneurs.

The specific objectives were to: (i) identify the main technological and pedagogical barriers faced by digital entrepreneurs; (ii) assess the level of digital literacy and mastery of educational tools before and after exposure to ID; (iii) evaluate the effectiveness of transitioning from communication tools (WhatsApp/Telegram) to structured Virtual Learning Environments (VLEs); and (iv) explore participants' perceptions of the use of multimodal resources to support student engagement.

The paper is organized as follows: the next section presents the methodology, describing the study design, the sample, the data collection instruments, and the analysis procedures. Section 3 reports the main results, focusing on the technological and pedagogical barriers identified and the changes observed after the Instructional Design training. Finally, Section 4 presents the conclusions, discussing the implications for women's digital entrepreneurship, the study's limitations, and recommendations for future research.

2. Methodology

This research adopts a quantitative approach. This methodological choice is grounded in the need to objectively measure data, enabling the identification of patterns and trends through quantifiable responses. In addition, the purpose of this approach is to quantify how ID influences the creation of online courses, focusing on the strategies entrepreneurs use to organize and structure content.

The study aims to understand the practical effects of using ID in these women's day-to-day work. Data collection was conducted through two questionnaire-based surveys with closed-ended questions: Questionnaire 1 (pre-training), administered to assess participants' prior knowledge of the topic; and Questionnaire 2 (post-training), administered after specific ID training to understand how learning influenced participants' capacity to develop courses.

Data was organized and processed in Microsoft Excel. The analysis was based on percentages, frequencies, and means, and the results were presented visually in charts and tables to facilitate objective interpretation.

The sample included 15 women recruited through social media, with more than one year of experience creating digital content and at least 1,000 followers, but with no prior success with their online courses. The analysis focused on identifying motivations and difficulties. Strict ethical criteria were ensured, including anonymity, privacy, and informed consent, promoting transparency and trust throughout the research process.

3. Results

In the context of women's digital entrepreneurship, the transition from tacit knowledge to the provision of online courses is often marked by barriers that go beyond pedagogical organization. One of the most prominent obstacles is a lack of knowledge and technological insecurity.

While digital entrepreneurship offers opportunities for flexibility and income generation, limited mastery of specific tools remains a major constraint. The data indicate that approximately 38% of women entrepreneurs identify technical/technological knowledge as the main obstacle to organizing, planning, and implementing their courses.

Another relevant aspect is that many women attract students through social networks and become highly skilled in producing content for these platforms. However, there is a clear distinction between being a content creator and being a digital educator. Despite having experience creating free content for social media—especially Instagram—many study participants reported feeling blocked by the technical infrastructure required to develop an online course.

Entrenched gender stereotypes and social expectations that may affect entrepreneurs' self-esteem were also considered; these factors can generate insecurity about their ability to succeed in the digital world.

The lack of training in integrating technology with pedagogy meant that 75% of the entrepreneurs initially interviewed had not yet started creating their courses due to a lack of guidance. This indicates that ID functions not only as a method for organizing content but also as a solid foundation for addressing technological and planning pedagogical challenges.

The method helps identify which resources are truly necessary, preventing entrepreneurs from feeling overwhelmed by unnecessary tools. Because it is a process with multiple purposes, it allows for rapid adaptation and can be implemented at low cost. ID thus becomes an effective solution for women who face challenges in using technology.

The impact of ID training on women's technological perceptions is notable. The study shows that after exposure to the methodology, participants' views of digital tools changed significantly.

Overcoming technological barriers in women's entrepreneurship does not occur solely through the use of digital tools, but also through understanding the rationale behind their use in shaping the educational journey. ID plays a transformative role because understanding its processes gives the entrepreneur a clear view of how to apply technology in practice.

It is common for digital entrepreneurs to start delivering content via instant messaging apps like WhatsApp and Telegram. These tools are chosen for their ease of use and low initial cost, enabling rapid communication. Although they are more popular and seem easier, they hinder logical content organization and do not provide an environment conducive to the pedagogical depth required for meaningful learning. The study shows that before ID training, about 50% of participants had limited knowledge, mastering only these communication tools.

Unlike messaging applications, the VLE is the space where organized interaction and learning activities effectively take place. Migrating to a structured VLE provides features that communication tools lack, such as centralized multimodal materials and support for clear learning pathways.

The research data reveals a qualitative leap: after ID training, 75% of participants reported fully understanding VLE functionalities, demonstrating greater confidence in using these technologies and enabling diagnostic, formative, and summative assessments. The greatest gain from moving to a VLE platform is the ability to implement a robust assessment process. Before ID, entrepreneurs struggled to align assessments with learning objectives.

This alignment enables measuring student progress, identifying difficulties, and adjusting pathways in real time. After the training, 75% of participants reported learning to plan assessments that accurately reflect course objectives. This change is not merely technical; it is a fundamental step for business sustainability, contributing to training with a logical sequence, pedagogical clarity, and high added value. By mastering these tools autonomously, women entrepreneurs strengthen their authority and ensure that their students' learning is effective and transformative.

Finally, the results reinforce that the effectiveness of an online course does not depend on sophisticated media production, but rather on the quality of pedagogical interaction. ID supports the process as a facilitator that enables contextualized knowledge transfer, maintaining the priority of establishing a clear dialogue between educator and learner, thereby fostering an environment of trust and support.

Frequent interaction through these channels enables rapid feedback, which is essential to sustaining learners' motivation and attention throughout the process. One of the most widely used ID models, the Successive Approximation Model (SAM), offers strategies and tools that facilitate the exchange of ideas, opinions, and experiences (Castelhano, 2022).

4. Conclusions

This study concludes that applying Instructional Design (ID) significantly improves the quality of online courses developed by women entrepreneurs. The use of structured methodologies contributed to clarifying pedagogical objectives, sequencing content, and making more appropriate choices of teaching strategies and technological resources. It was also found that ID supports autonomy in building coherent learning pathways, promotes greater confidence in the use of educational technologies, and facilitates the transition from communication tools to Virtual Learning Environments.

In addition, ID proved essential for strengthening entrepreneurs' authority in the digital market by providing solid pedagogical foundations that enhance the effectiveness of training and add value to students' experiences. The study shows that the success of an online course does not depend exclusively on sophisticated resources, but on building consistent pedagogical interactions aligned with structured feedback processes and establishing a clear dialogue between educator and learner.

Given the identified limitations—particularly participants’ difficulties in reconciling schedules, the dropout of some participants throughout the process, geographic distance that hindered interaction, and limited diversity of perspectives—future research should increase the number of participants and improve interaction mechanisms to strengthen representativeness, engagement, and data reliability. In addition, incorporating qualitative interviews may deepen understanding of the impacts of training, the challenges faced, and entrepreneurs’ motivations in developing online courses.

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