



CONTEMPORARY EDUCATION ROLE OF INSTRUCTIONAL DESIGN

Matias Rebouças Cunha

<http://lattes.cnpq.br/8673206809380664>

<https://orcid.org/0000-0002-0568-1699>

Email: matiascunha17@gmail.com

Ana Sueli Coêlho

<https://latter.cnpq.br/4333095022866195>

<https://orcid.org/0009-0005-7129-4370>

Email: elycoelhodias@gmail.com

Geime Aparecida de Almeida

<http://lattes.cnpq.br/2010255017154388>

<https://orcid.org/0000-0001-7791-8686>

Email: meige_almeida@hotmail.com

Graziele Rancan

<http://lattes.cnpq.br/5068468053041392>

Email: grazirancan@gmail.com

Hermocrates Gomes Melo Júnior

<https://orcid.org/0009-0003-5758-414X>

Email: hgjuniior@ufba.br

SUMMARY

This study addresses Instructional Design (ID) as an important methodology in structuring effective educational experiences, aligning educational technologies with pedagogical theories to optimize learning. Barriers to its implementation were investigated, including institutional resistance, lack of specific training for instructional designers and challenges in creating engaging educational materials. The objective was to explore DI practices, their advantages and disadvantages, and elucidate the role of the professional instructional designer in education. The methodology used consisted of a qualitative bibliographic review, analyzing relevant literature to understand the implications of ID in education. The results indicate that, despite the challenges, DI has significant potential to promote more personalized and student-centered learning. However, its effectiveness depends on overcoming obstacles related to its adoption and the adequate training of instructional designers. It is concluded that a collaborative approach between educators, designers and institutions is fundamental to the successful implementation of DI, emphasizing the need for continued research to identify innovative strategies that address the challenges of modern education.

Key words:Instructional Design. Education. Practices. Challenges. Paper.

ABSTRACT

1 This study focuses on Instructional Design (ID) as a critical methodology in structuring effective educational design experiences, aligning educational technologies with pedagogical theories to optimize learning. It investigated the barriers to its implementation, including institutional resistance, the lack of specific training for instructional designers, and challenges in creating engaging educational materials. The goal was to explore ID practices, their advantages and disadvantages, and to clarify the role of the instructional design professional in education. The methodology consisted of a qualitative literature review, analyzing relevant literature to understand the implications of ID in education. The results indicate that, despite the challenges, ID has significant potential to promote more personalized and student-centered learning. However, its effectiveness depends on overcoming obstacles related to its adoption and on the proper training of instructional designers.



It concludes that a collaborative approach among educators, designers, and institutions is essential for the successful implementation of ID, highlighting the need for ongoing research to identify innovative strategies that address the challenges of modern education.

Keywords: Instructional Design. Education. Instructional Design. Education. Practices. Challenges. Paper.

1. Introduction

The introduction to the topic of Instructional Design (ID) stands out for its importance in structuring effective educational experiences that meet the learning needs of students in different contexts. DI incorporates systematic practices to develop teaching materials and activities, aligning pedagogical theories and educational technologies to optimize learning outcomes. With constant technological evolution and changes in the educational scenario, the application of DI becomes increasingly relevant to promote education that is both engaging and efficient.

The justification for choosing this theme lies in the growing need to adapt educational methods to the new demands of society and the profile of students in the digital era. Digital transformation has brought with it challenges and opportunities for the education sector, requiring a reevaluation of traditional teaching methods. DI presents itself as a response to these demands, offering strategies for creating more dynamic and personalized learning environments. Furthermore, the increase in the supply of online courses and the need for inclusion and accessibility in teaching reinforce the relevance of DI as an essential tool for educators and institutions.

The problem arises when observing that, despite the recognized benefits of DI, its implementation faces significant barriers. These include resistance on the part of educators and institutions to adopt new technologies and methodologies, the lack of specific training for instructional designers and the challenge of developing educational materials that are both engaging and pedagogically effective. Therefore, the question arises as to how ID can be effectively implemented in educational institutions to overcome these obstacles and maximize learning outcomes.

The objectives of this research focus, firstly, on analyzing current DI practices and identifying the factors that influence their effectiveness in the educational process. It is also intended to investigate the advantages and difficulties associated with the use of DI, with the aim of better understanding how these practices can be improved and more widely adopted. Furthermore, we seek to explore the role of the professional instructional designer, examining their skills, challenges and contributions to education. Finally, this study aims to provide recommendations for the effective implementation of DI, contributing to improving the quality of education and training qualified professionals in this area.

two. Practices, Challenges and the Role of the Designer

Instructional Design (ID) constitutes a field of study and practice that is dedicated to the development of effective learning experiences, using pedagogical and technological strategies to facilitate the educational process. In this context, the implementation of DI practices in educational institutions has been the subject of considerable attention from researchers and education professionals. According to Clark and Mayer (2016, p. 45), "ID is essential for creating learning environments that not only engage the student, but also promote knowledge retention and practical application".

DI practices vary widely, ranging from Problem-Based Learning (PBL) to the use of digital technologies to create online courses. Almeida de Souza and Ferreira da Fonseca (2020, p. 102) highlight that PBL "promotes active learning, in which students are encouraged to explore real problems and develop practical solutions". This methodology highlights the commitment of DI with the creation of educational contexts that encourage critical thinking and problem solving.

However, the implementation of DI faces significant challenges. Resistance to change on the part of educators and institutions is a common obstacle. As Filatro and Cairo (2019, p. 87) argue, "the transition to ID practices requires not only changes in teaching methodology, but also a change in the organizational culture of educational institutions". This aspect highlights the complexity of integrating DI effectively, requiring a systematic approach that considers institutional and pedagogical dynamics.

In addition to challenges related to implementation, training qualified instructional designers is another area of concern. According to Bacich and Moran (2018, p. 58), "the training of professionals capable of



Applying ID principles effectively is critical to the success of any educational initiative.” This implies the need for specific training programs that prepare instructional designers to face contemporary challenges in education.

The instructional designer's role is characterized by his ability to integrate pedagogical, technological and design knowledge to develop teaching materials and activities. Silva, Bilessimo and Machado (2021, p. 156) describe the instructional designer as “a professional who works at the intersection between education, technology and design, bringing a unique perspective to the development of educational solutions”. This definition highlights the importance of the instructional designer in the educational process, acting as a learning facilitator.

The relevance of DI and the professional instructional designer in the contemporary educational context is unquestionable. The advantages associated with its practice, such as personalizing teaching and creating more engaging and effective learning experiences, are widely recognized. However, overcoming implementation challenges and the need for adequate training of professionals are critical issues that must be addressed to maximize the potential of DI.

In conclusion, DI represents a vital approach to developing educational practices that respond to students' needs and the challenges of the 21st century. Effective integration of DI requires a deep understanding of its practices, as well as overcoming obstacles to its adoption. The role of the instructional designer, as a mediator between theory and practice, is essential for achieving educational objectives, highlighting the need to invest in their training and professional development.

3 Final Considerations

The results of this study highlight the importance of DI as an essential tool in creating effective, personalized learning experiences adapted to the needs of contemporary students. Among the advantages, the ability to integrate innovative educational technologies and the promotion of more active and student-centered learning stand out. On the other hand, disadvantages include the complexity of effective DI implementation, which requires not only specific skills on the part of instructional designers, but also a change in the organizational culture of educational institutions.

The analysis revealed that, although DI offers significant potential to improve the quality of education, the effectiveness of its implementation is intrinsically linked to overcoming the aforementioned challenges. This includes promoting greater acceptance of ID among educators and institutions, developing targeted training programs for instructional designers, and creating strategies to develop teaching materials that are both pedagogically sound and engaging for students.

In short, this study highlights the need for an integrated and collaborative approach in the field of ID, involving educators, instructional designers and educational institutions themselves. Collaboration between these actors is important for creating learning experiences that not only meet educational objectives but also engage and inspire students. Finally, the importance of continuing to explore and research ID is highlighted, with the aim of identifying innovative and effective strategies that can be implemented to face contemporary challenges in education.

4 References

Almeida, S., C., & Ferreira F., R. (2020). Considerations regarding the use of Problem-Based Learning (PBL) in a Technical Course Integrated into High School. *Revista De Educação Matemática*, 17, e020049. <https://doi.org/10.37001/remat25269062v17id443>

3

Alves, AG, & Hostins, RCL (2019). Development of imagination and creativity through game design by children at inclusive school. *Brazilian Journal of Special Education*, 25(1), 17-36. <https://www.scielo.br/j/rbee/a/kjbyj3HKnjdSp8QtY9D96tw/>

Bacich, L., & Moran, J. (Eds.). (2018). *Active methodologies for innovative education: A theoretical-practical approach*. Porto Alegre: I think so. Recovered from https://edisciplinas.usp.br/pluginfile.php/7722229/mod_resource/content/1/Metodologias-Ativas-para-uma-Educacao-Inovadora-Bacich-e-Moran.pdf

Clark, R. C., & Mayer, R. E. (2016). *e-Learning and the science of instruction: Proven guidelines for consumers*



Comerlato, I.H. (2022). Digital inclusion: Connected schools in the city of Esteio/RS. Federal University of Santa Maria. Retrieved from https://repositorio.ufsm.br/bitstream/handle/1/26864/TCCE_GPM_EaD_2022_COMERLATO_ISABEL.pdf?sequence=1&isAllowed=y

Corrêa, L.A., Taniguti, G., & Ferreira, K. (2021). Digital technologies applied to inclusive education: Strengthening the universal design for learning (1st ed.). Rodrigo Mendes Institute. <https://rm.org.br/wp-content/uploads/2021/11/Tecnologias-digitais-aplicadas-a-educacao-inclusiva-IRM.pdf>

Filatro, A., & Cairo, S. (2019). Production of educational content: Instructional design, technology, management, education and communication. São Paulo: Saraiva.

Filho, VF, Gerges, NRC, & Fialho, FAP (2015). Design Thinking, cognition and education in the 21st century. *Diálogo Educacional Magazine*, 15(45), 579-596. <https://periodicos.pucpr.br/dialogoeducacional/article/view/5029>

Rodrigues, EN, & Souza, FN (2022). Education for digital inclusion as promising measures in the pandemic and post-pandemic. *Humanities & Innovation*, 2(1), 7-10. <https://doi.org/10.19141/2763-5163.docentdiscunt.v9.n8.p7-10>

Silva, JB, Bilessimo, SMS, & Machado, LR (2021). Integration of technology in education: Proposed model for teacher training inspired by TPACK. *Education. rev.*, 37, e232757. <https://doi.org/10.1590/0102-4698232757>

Siemens, G. (2005). Connectivism: A learning theory for the digital age. *International Journal of Instructional Technology and Distance Learning*, 2(1), 3-10. Available at https://jotamac.typepad.com/jotamacs_weblog/files/Connectivism.pdf

Valente, J. A. (2018). The flipped classroom and the possibility of personalized teaching: an experience with a degree in medialogy. Retrieved from https://edisciplinas.usp.br/pluginfile.php/7890911/mod_resource/content/1/Valente%202018_A%20sala%20de%20aula%20invert%20e%20a%20possível%20do%20teaching%20personalizado-uma%20experi%C3%Aancia%20com%20a%20gradua%C3%A7%C3%A3o%20em%20midialogia.pdf