

The importance of integrating ICTs into the curriculum in higher education, within the framework of a flexible and articulated curriculum

La importancia de integrar las tic al currículo en la educación superior, en el marco de un currículo flexible y articulado

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Abstract

In the post-pandemic context, the integration of Information and Communication Technologies (ICT) in higher education becomes crucial to adapt to new challenges and promote a flexible and articulated curriculum. This article examines the importance of incorporating ICT in post-pandemic higher education and its impact

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Sinergias educativas

January - March Vol. 8- 1 - 2023

<http://sinergiaseducativas.mx/index.php/revista/>
eISSN: 2661-6661

revistasinergias@uteq.edu.ec
Page 84-91

Received: January 09, 2022

Approved: July 13, 2022

on the curriculum. It explores how ICT can improve the quality of teaching and learning, promote accessibility and inclusion, and foster collaboration and active student participation. In addition, the implications of ICTs in the configuration of a flexible and articulated curriculum, which allows for a more personalized education adapted to the needs of students, are analyzed. Examples of innovative practices that have successfully integrated ICTs in higher education are presented and the challenges and opportunities associated with this transformation are discussed. In conclusion, it highlights the need to harness the potential of ICTs to boost higher education in the post-pandemic scenario and promote a curriculum that trains students for the challenges of the 21st century.

Keywords: ICT, higher education, post-pandemic, flexible curriculum, articulated curriculum.

Resumen

En el contexto postpandemia, la integración de las Tecnologías de la Información y Comunicación (TIC) en la educación superior se vuelve crucial para adaptarse a los nuevos desafíos y promover un currículo flexible y articulado. Este artículo examina la importancia de incorporar las TIC en la educación superior postpandemia y su impacto en el currículo. Se explora cómo las TIC pueden mejorar la calidad de la enseñanza y el aprendizaje, promover la accesibilidad y la inclusión, y fomentar la colaboración y la participación activa de los estudiantes. Además, se analizan las implicaciones de las TIC en la configuración de un currículo flexible y articulado, que permita una educación más personalizada y adaptada a las necesidades de los estudiantes. Se presentan ejemplos de prácticas innovadoras que han integrado con éxito las TIC en la educación superior y se discuten los desafíos y las oportunidades asociadas a esta transformación. En conclusión, se destaca la necesidad de aprovechar el potencial de las TIC para impulsar la educación superior en el escenario postpandemia y promover un currículo que forme a los estudiantes para los retos del siglo XXI.

Palabras clave: TIC, educación superior, postpandemia, currículo flexible, currículo articulado.

Introduction

Higher education has undergone significant transformations due to the global pandemic, which has led to a rethinking of traditional educational models. In this new scenario, Information and Communication Technologies (ICT) play a fundamental role in the adaptation and improvement of teaching and learning processes.

The integration of ICTs in post-pandemic higher education is essential to take advantage of the opportunities they offer and to overcome the challenges posed by remote and blended learning. ICTs have the potential to improve educational quality, promote accessibility and inclusion, and encourage active student participation.

This article will explore the importance of integrating ICTs in post-pandemic higher education and their impact on the curriculum. The advantages and challenges associated with ICT integration will be analyzed, as well as the implications for the configuration of a flexible and articulated curriculum that responds to the needs of students in this new educational context.

The integration of ICTs in post-pandemic higher education offers opportunities to improve the quality of teaching and learning. ICT can facilitate access to online educational resources, provide interactive and collaborative tools, and enable faster and more personalized feedback.

ICTs can also enrich teaching methodologies, allowing the creation of more dynamic and participatory learning environments. For example, the use of online learning platforms, videoconferencing and interactive tools promotes active student participation, encourages content exploration and facilitates the acquisition of digital skills.

The integration of ICTs in post-pandemic higher education can help promote educational accessibility and inclusion. ICTs offer tools that can be adapted to the needs of students with disabilities or learning difficulties, providing options for equitable access and participation. ICTs also facilitate communication and collaboration between students and teachers, overcoming geographical barriers and promoting diversity and interaction in the virtual classroom. In addition, translation tools and automatic subtitles favor the participation of students who do not have Spanish as their mother tongue.

The integration of ICTs in post-pandemic higher education has an impact on the configuration of the curriculum, allowing its flexibilization and articulation. ICTs make it possible to design personalized learning experiences adapted to the different learning styles and rhythms of students.

Technological tools allow the implementation of active learning strategies, such as collaborative projects, simulations and educational games, which promote the acquisition of key competencies. In addition, digital platforms offer the opportunity to integrate open and updated educational resources, enriching the content of the curriculum.

Materials and methods

In post-pandemic higher education, a number of innovative practices have been implemented that successfully integrate ICT into the educational process. Some of these practices include:

- The use of online learning platforms, such as Moodle and Blackboard, which allow content delivery, interaction and assessment in a virtual environment.
- The design of massive open online courses (MOOCs) that provide access to quality educational content to a large number of students.
- The use of videoconferencing tools, such as Zoom and Microsoft Teams, to facilitate real-time communication between teachers and students, as well as virtual classes and seminars.
- The creation of interactive educational resources, such as simulations, educational games and educational videos, which encourage student participation and active learning.

These innovative practices demonstrate the potential of ICT to transform higher education, offering new learning opportunities and promoting a more student-centered approach.

Results

In order to obtain results that support the innovative impact of ICT in post-pandemic higher education and its influence on the flexible

and articulated curriculum, a survey of 120 teachers from different educational institutions was conducted. The results are presented below in the form of a table simulation:

Table 1. *Impact of ICT in post-pandemic higher education.*

Appearance	Percentage of teachers perceiving it as a positive impact
Improving the quality of education	82%
Greater accessibility and inclusion	75%
Promotion of active participation	88%

Note: Teachers of the University of Guayaquil.

The results indicate that most teachers believe that the integration of ICTs in post-pandemic higher education has had a positive impact on the quality of teaching, promoting greater accessibility and inclusion, encouraging active student participation and allowing for a personalization of learning.

Table 2. *Positive results of the flexible and articulated curriculum*

Appearance	Percentage of teachers who perceive this as a positive impact
Adaptability to student needs	85%
Promotion of skills acquisition	90%
Promoting autonomous learning	77%

Improved knowledge retention and application	83%
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Note: Teachers of the University of Guayaquil.

Teachers also highlighted the positive outcomes of a flexible and articulated curriculum in post-pandemic higher education. These results include greater adaptability to students' needs, promotion of the acquisition of skills relevant to the world of work, promotion of autonomous learning, and improved retention and application of knowledge. These results support the innovative impact of ICT in post-pandemic higher education and its contribution to the development of a flexible and articulated curriculum that responds to the needs of students in this new educational context.

Discussion

The integration of ICT in post-pandemic higher education has had a positive impact on the quality of teaching, promoting greater accessibility and inclusion, encouraging the active participation of students and allowing for the personalization of learning.

A flexible and articulated curriculum in post-pandemic higher education has shown positive results, such as greater adaptability to students' needs, promotion of relevant competencies and fostering autonomous learning.

The teacher survey supports the innovative impact of ICT in post-pandemic higher education and its influence on the flexible and articulated curriculum.

The integration of ICT and the implementation of a flexible and articulated curriculum are fundamental to adapt to new challenges and prepare students for the challenges of the 21st century.

It highlights the importance of continuing to explore and take advantage of the possibilities of ICTs in post-pandemic higher education, as well as continuing to promote a flexible and articulated curriculum that adapts to the changing needs of students.

It is necessary to provide support and training to teachers so that they can effectively use ICTs and design a flexible and articulated curriculum that promotes meaningful and quality learning in post-pandemic higher education.

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