Using Digital Tools in a Learning Environment

EVANGELIA MITSIKA

PhD Candidate at the University of Alicante

INTERCULTURAL AND HISTORICAL TRANSFERS IN THE MEDITERRANEAN MEDIEVAL EUROPE

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Summary

The theoretical background of the impact of technology in education draws on various educational theories and frameworks.

The evolving role of technology in education continues to reshape teaching and learning practices to create more accessible, engaging, and effective educational environments.

Purpose

The main purpose of the project is to identify and utilize key computer tools within learning environments in general and special education, aiming to generate specific proposals that facilitate the adaptation of teaching interventions in these environments.

Methodology of Research

The research provides information on the contribution of new technologies in the field of education and uses a literature review as a basic method.

The Benefits of the Research

The benefits of the research lie in presenting the key elements and advantages of technology in education.

Overall, the evolving role of technology in education continues to reshape teaching and learning practices, aiming to create more accessible, engaging, and effective educational environments.

The theoretical background of technology's 1 / 4

1. Constructivism
2. Connectivism:
3. Cognitive Load Theory
4. Social Learning Theories
5. Universal Design for Learning (UDL)
6. Technological Pedagogical Content Knowledge (TPACK)
7. Behaviorism and Operant Conditioning

Overall, the evolving role of technology in education continues to reshape teaching and learning practices, aiming to create more accessible, engaging, and effective educational environments.

The theoretical background of technology's 2 / 4

1. **Constructivism:** Emphasizes active learning where learners construct their understanding and knowledge through interaction with the environment and technology-enhanced activities.

2. **Connectivism**: Focuses on learning as a process of making connections and emphasizes the role of networks and digital tools in facilitating learning across diverse contexts.

3. Cognitive Load Theory: Examines how the design of educational materials and technology affects the cognitive load on learners, aiming to optimize learning by managing cognitive resources effectively.

4. Social Learning Theories: Highlight the importance of social interaction, collaboration, and communities of practice facilitated by technology in enhancing learning outcomes.

5. **Universal Design for Learning (UDL):** Promotes using flexible digital tools and technologies to accommodate diverse learner needs and preferences, ensuring equitable access to learning opportunities.

6. **Technological Pedagogical Content Knowledge (TPACK):** Integrates knowledge of technology, pedagogy (teaching methods), and content to enhance teaching effectiveness and student learning outcomes.

7. Behaviorism and Operant Conditioning: Explores how technology can be used to reinforce desired behaviors and learning outcomes through feedback mechanisms and adaptive learning platforms.

The evolution of technology profoundly impacts the field of education in various ways:

❑ **Access to Information**

❑ **Enhanced Learning Experience**

❑ **Personalized Learning**

❑ **Global Collaboration**

❑ **Efficiency in Administration**

❑ **Professional Development**

❑ **Equity and Inclusion**

❑ **Access to Information**: Technology enables easy access to vast amounts of information and educational resources, breaking down barriers to learning regardless of geographic location.

❑ **Enhanced Learning Experience**: Interactive multimedia tools, simulations, and educational software provide engaging and dynamic learning experiences catering to diverse learning styles.

The evolution of technology 3 / 5

Personalized Learning: Adaptive learning platforms and AI-driven tools can personalize learning experiences, allowing students to learn at their own pace and focus on areas where they need improvement.

Global Collaboration: Technology facilitates global collaboration among students and educators through video conferencing, online forums, and collaborative platforms, fostering cultural exchange and diverse perspectives.

❑ **Efficiency in Administration**: Educational institutions use technology for administrative tasks such as scheduling, grading, and communication, streamlining operations and allowing educators to focus more on teaching.

❑ **Professional Development**: Online courses, webinars, and digital resources enable continuous professional development for educators, keeping them updated with the latest teaching methodologies and technologies.

❑ **Equity and Inclusion**: Technology can bridge gaps in access to education, offering opportunities for marginalized groups and individuals with disabilities to participate fully in learning experiences.

Conclusions

Overall, the evolving role of technology in education continues to reshape teaching and learning practices, aiming to create more accessible, engaging, and effective educational environments.
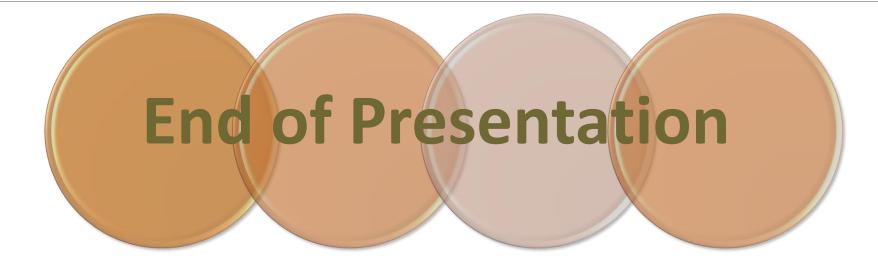
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End of Presentation

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