INFORMATION EDUCATIONAL ENVIRONMENT IN THE UNIVERSITY EDUCATIONAL SYSTEM

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https://doi.org/10.5281/zenodo.7908535

Abstract. *The article considers comprehensive aspects of education in a general information environment of the educational process. The structure and components of the information and educational environment, organization and interaction between the participants of the educational process are determined. Also, attention is paid to innovative teaching methods currently being introduced into the educational process.*

Keywords: *Information Educational Environment (IEE), Learning Management System (LMS), interactive technologies, optimization of the educational process, personalized learning, collaboration and group work, gamification flipped learning, scaffolding in education.*

INTRODUCTION

An Information Educational Environment (IEE) is a learning environment that uses technology and digital resources to support and enhance education. It is a digital ecosystem designed to facilitate the teaching and learning process by integrating educational technologies, resources, and tools into the educational process.

An IEE includes various components such as hardware, software, networks, digital content, and support services. It can be designed for a specific educational level or for multiple levels, including primary, secondary, higher education, and lifelong learning.

Some common features of an IEE include online learning platforms, digital libraries, multimedia resources, virtual and augmented reality tools, collaborative learning tools, and communication tools. These components enable learners to access information and knowledge from anywhere, at any time, and in various formats.

An IEE can also provide personalized learning experiences, adaptive learning, and real-time feedback to learners. Teachers can use IEEs to deliver more effective instruction, monitor student progress, and assess learning outcomes.

Generally, an IEE is designed to create an engaging and interactive learning environment that supports the acquisition of knowledge and skills, fosters collaboration and communication, and enhances the overall educational experience.

The information educational environment (IEE) of a university is a digital ecosystem designed to facilitate the teaching and learning process at the tertiary level. It includes various components, such as hardware, software, networks, digital content, and support services, that are specifically tailored to meet the needs of higher education.

The IEE of a university typically includes a learning management system (LMS) that serves as a central platform for online learning, course management, and student engagement. The LMS

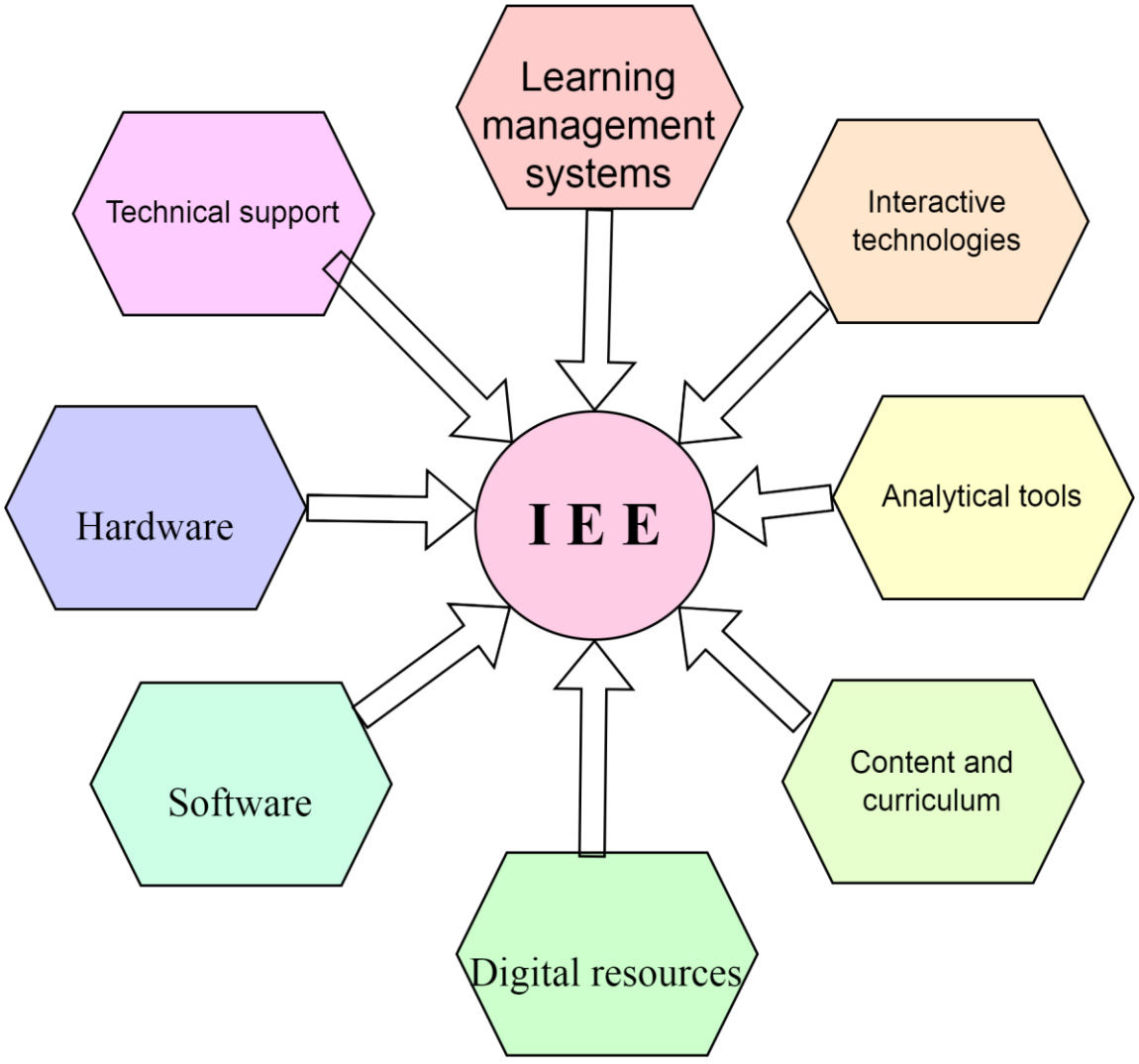
enables instructors to upload course materials, create assignments, and deliver assessments online. Students can access these materials from anywhere, at any time, and collaborate with peers using discussion forums, blogs, and wikis.

In addition to the LMS, the IEE of a university may include a range of digital resources, such as electronic textbooks, digital libraries, multimedia resources, virtual and augmented reality tools, and communication tools. These resources provide students with a range of learning materials and modalities that cater to different learning styles and preferences.

The IEE of a university also facilitates personalized learning experiences, adaptive learning, and real-time feedback to learners. This is achieved through the integration of analytics tools that track student progress and provide instructors with insights into student performance. Instructors can use this information to tailor their teaching to meet the needs of individual students and provide timely feedback.

The IEE of a university creates an engaging and interactive learning environment that supports the acquisition of knowledge and skills, fosters collaboration and communication, and enhances the overall educational experience at the tertiary level.

The Information Educational Environment (IEE) includes various components that interact with each other to support effective teaching and learning. Some of the main components of the IEE shown in the diagram:

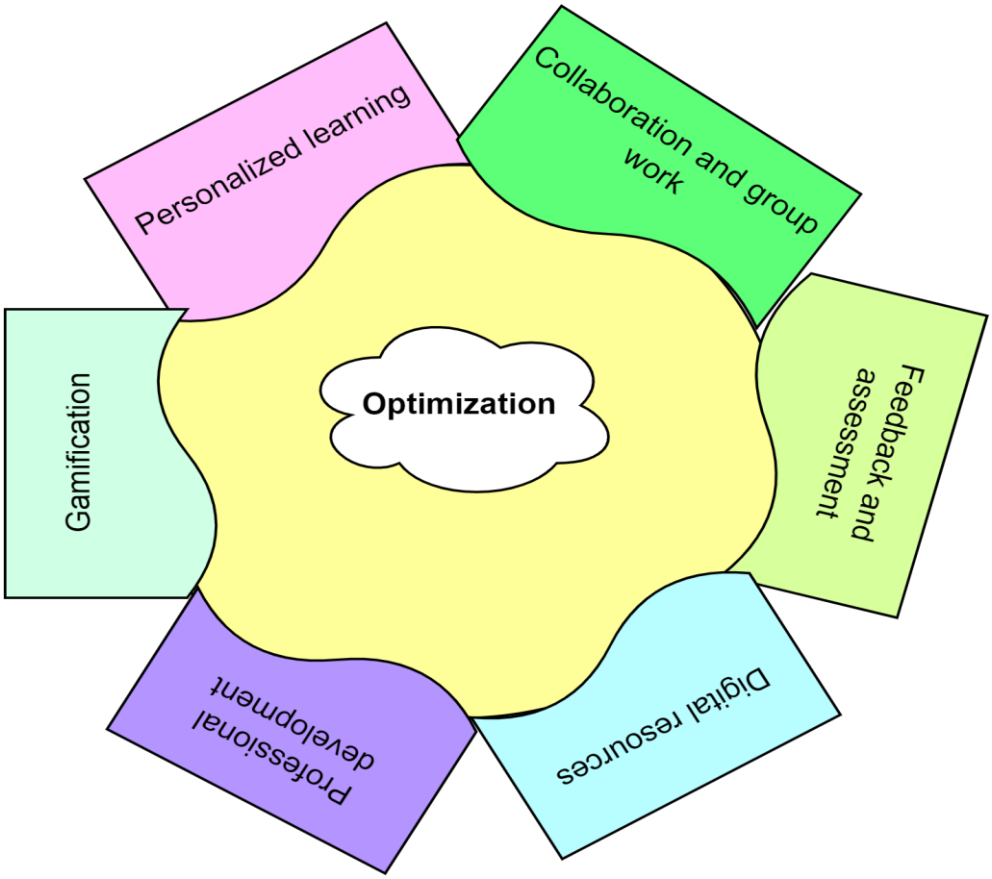


- Learning management systems (LMS): Platforms used to organize and manage the learning process, such as Learning Management System (LMS), Learning Content Management System (LCMS), Learning Record Store (LRS).
- Interactive technologies: This includes interactive whiteboards, multimedia projectors, interactive input devices, web conferences, blogs, forums, and social networks, allowing students to interact and communicate with each other and with teachers.
- Hardware: This includes computers, tablets, laptops, interactive whiteboards, and other devices used for teaching and learning.
- Software: This includes programs used to manage the learning process and provide access to digital resources such as e-textbooks, video lessons, web pages, audio files, and more.
- Digital resources: This includes e-textbooks, databases, scientific journals, electronic libraries, video lessons, audio files, interactive exercises, and games.
- Analytical tools: These allow the collection and analysis of data about the learning process and student assessment. Using analytical tools can help identify problem areas and improve the learning and assessment process.
- Technical support: Support from technical staff who ensure proper functioning of equipment and software, as well as provide technical support to teachers and students.
- Content and curriculum: This includes educational programs, curricula, teaching aids, textbooks, courses, scientific articles, and other materials used in teaching.

Optimization of the educational process and increasing the efficiency of independent work of students

Optimizing the learning process and increasing the efficiency of independent work of students in the information environment of the university can be achieved through various strategies:

- Personalized learning: Tailor learning materials to the needs and abilities of individual students. Provide opportunities for students to take ownership of their learning and develop skills such as critical thinking and problem-solving.
- Collaboration and group work: Encourage collaboration and group work among students. Use online platforms and tools to facilitate communication and teamwork. This can enhance learning outcomes and develop important skills such as teamwork and communication.
- Feedback and assessment: Provide regular feedback and assessment to students to monitor their progress and help them identify areas where they need improvement. Use online tools and platforms to streamline the feedback and assessment process.
- Gamification: Incorporate gamification into the learning process to make it more engaging and enjoyable. Use tools such as quizzes, puzzles, and simulations to make learning more interactive and rewarding.
- Use of digital resources: Encourage the use of digital resources such as e-books, educational videos, and online courses. This can make learning more interactive and engaging, and allow students to access learning materials at any time.
- Professional development: Encourage teachers to continuously develop their skills and knowledge in using information and communication technologies (ICT) for teaching and learning. This can help them use digital resources and tools effectively, and provide better guidance and support to students.



By implementing these strategies, universities can optimize the learning process and increase the efficiency of independent work of students in the information environment, resulting in improved learning outcomes and better-prepared graduates.

Flipped learning

Flipped learning is an instructional strategy that involves reversing the traditional classroom approach. In flipped learning, students learn new content or skills outside of class, usually through pre-recorded lectures, videos, readings, or other multimedia resources, and then engage in active learning activities during class time, such as problem-solving, group work, or discussions, where the teacher serves as a facilitator.

The basic idea behind flipped learning is that students can gain a deeper understanding of the material by engaging in active learning activities and receiving more individualized attention from the teacher. In a traditional classroom, lectures and instruction occur during class time, and students often do homework or individual assignments outside of class. Flipped learning flips this model, so that students are exposed to new content outside of class, and class time is dedicated to applying the knowledge through activities that are more interactive, engaging, and collaborative.

One of the main benefits of flipped learning is that it allows students to learn at their own pace and on their own schedule. They can review content multiple times if needed, and can access the material from anywhere with an internet connection. Flipped learning also allows teachers to tailor their instruction to meet the needs of individual students, and provides more opportunities for students to interact and collaborate with each other.

While flipped learning can be an effective instructional strategy, it requires careful planning and preparation. Teachers need to design engaging and interactive learning activities, and must be available to provide support and guidance to students as they learn new content outside of class. Additionally, students need to have access to the necessary technology and resources to engage in flipped learning activities.

Scaffolding in education

Scaffolding is a learning strategy that involves providing support and guidance to learners as they work towards achieving their learning goals. The term "scaffolding" comes from the construction industry, where temporary supports are used to help workers reach higher levels of a building or structure.

In education, scaffolding refers to the support and guidance provided by teachers or more experienced peers to help learners acquire new knowledge or skills. Scaffolding can take many forms, such as providing prompts, asking leading questions, breaking down tasks into smaller steps, modeling, and providing feedback.

The goal of scaffolding is to help learners move from their current level of understanding to a higher level of understanding, gradually reducing the level of support as they become more proficient. Scaffolding allows learners to take on more challenging tasks than they would be able to do independently, and helps them develop problem-solving skills and critical thinking skills.

Scaffolding can be used in a variety of educational settings, including classroom instruction, online learning, and one-on-one tutoring. It can be used in any subject area, and is particularly effective for complex or challenging topics.

Some of the benefits of scaffolding as a learning strategy include:

- Increased student motivation: Scaffolding can help learners feel more confident and motivated as they work towards achieving their learning goals.
- Enhanced understanding: Scaffolding can help learners develop a deeper understanding of the material by breaking it down into smaller, more manageable chunks.
- Improved problem-solving skills: Scaffolding can help learners develop problem-solving skills by providing guidance and support as they work through challenging tasks.
- Increased collaboration: Scaffolding can promote collaboration and peer learning by providing opportunities for learners to work together and learn from each other.

In summarize, scaffolding is a powerful learning strategy that can help learners achieve their learning goals by providing the necessary support and guidance to help them succeed.

Gamification in the learning

Gamification is the process of incorporating game elements and game design techniques into non-game contexts to make them more engaging and interactive. In education, gamification refers to the use of game mechanics and game-based learning to enhance student engagement, motivation, and learning outcomes.

Some common examples of gamification in education include:

Points and badges: Assigning points and badges to students for completing assignments or achieving certain learning goals can help motivate them and make the learning experience more rewarding.

Leaderboards: Leaderboards can be used to track student progress and foster healthy competition among students, encouraging them to strive for better performance.

Game-based learning: Game-based learning involves using games or game-like activities to teach concepts and skills. These activities can be simulations, quizzes, or puzzles that make learning more engaging and interactive.

Quests and missions: Quests and missions can be used to create a narrative around the learning experience, providing students with a sense of purpose and direction.

Role-playing: Role-playing can be used to help students understand complex concepts and scenarios by putting them in the shoes of different characters and experiencing different perspectives.

The benefits of gamification in education are:

Increased engagement: Gamification can make learning more fun and engaging, helping students stay focused and motivated.

Improved learning outcomes: Gamification can enhance learning outcomes by providing students with more opportunities for active learning, feedback, and mastery.

Personalized learning: Gamification can be used to create personalized learning experiences that are tailored to the needs and preferences of individual students.

Increased collaboration: Gamification can promote collaboration and teamwork among students, encouraging them to work together to achieve common goals.

In sum, gamification is a powerful tool for enhancing student engagement, motivation, and learning outcomes in education. It can be used in a variety of settings and subject areas, and is particularly effective for teaching complex or abstract concepts.

CONCLUSION

We looked at several high points in learning in an information educational environment:

Flexibility: Learning in an information learning environment provides students with the flexibility to learn at their own pace and on their own schedule. They can access learning materials and resources anytime and anywhere, using a computer or a mobile device.

Access to a wide range of resources: Information learning environments provide access to a vast range of digital resources such as e-books, educational videos, simulations, and online courses. This makes learning more engaging and interactive, and allows students to explore topics in greater depth.

Collaborative learning: Information learning environments provide opportunities for collaborative learning through online discussion forums, group projects, and peer review. This promotes the development of important skills such as teamwork, communication, and problem-solving.

Personalized learning: Information learning environments can be tailored to meet the individual needs of students, providing personalized learning experiences that take into account their learning styles and abilities.

Real-time feedback: Information learning environments allow for real-time feedback on students' progress and performance, helping them identify areas where they need improvement and providing opportunities for timely intervention.

Improved engagement: Information learning environments are often designed to be interactive and engaging, using gamification and other techniques to motivate and stimulate students' interest in learning.

In conclusion, learning in an information learning environment provides students with a wide range of benefits, including increased flexibility, access to resources, collaborative learning,

personalized learning, real-time feedback, and improved engagement. These benefits can lead to better learning outcomes and help students develop the skills and knowledge they need to succeed in their academic and professional lives.

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