GREENES

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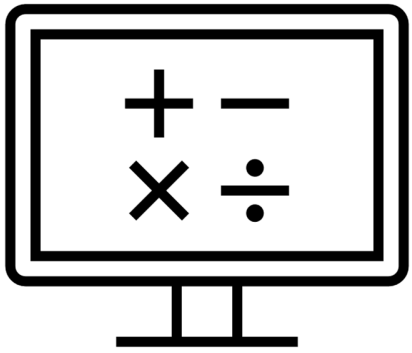
A.2.6. DEVELOPMENT OF *ON-LINE* LEARNING METHODOLOGY



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- ABOUT THE METHODOLOGY

Modern online learning methodology includes a range of strategies and approaches that are adapted to the digital environment and aim to improve interaction, engagement, and learning efficiency. Online learning focuses on creating interactive and engaging experiences for users. This includes interactive video lessons, simulations, quizzes, assignments, and other activities that encourage students to actively participate and apply what they have learned. The methodology should rely on personalized learning, giving users the opportunity to choose courses and materials that suit their interests and level of knowledge. Adaptability allows users to learn at their own pace and at a time that suits them. Online learning uses a variety of multimedia resources such as video lessons, audio materials, graphics, animations, and other content to enrich the learning experience and better convey the material. Social learning is also an important part of the project. Online platforms often support social learning through discussion groups, forums, live sessions, and the ability to collaborate with other students. This encourages the exchange of ideas, support, and joint learning.

The methodology should focus on the practical application of the learned material through exercises, tasks, and projects. This helps students apply the acquired knowledge in real-world situations and develop practical skills. Online learning uses a variety of tools to assess students' progress and provide them with feedback so they know where they are in their learning and how they can improve their skills. Students could track their progress through the course and see what lessons they have completed and how much they have achieved in quizzes and tests. Online learning should allow access to content from a variety of devices such as computers, tablets, and smartphones, allowing users to learn wherever they are. Furthermore, online learning platforms frequently update content to keep it up-to-date and reflect the latest information and developments in a particular field.

Modern learning curve methodology strives to provide flexible, interactive, and personalized learning, which contributes to a better understanding and application of the learned material. The integration of multimedia resources, social learning and practical application make online learning an increasingly popular and effective form of education.

- GREENES METODOLIGJA ONLINE UČENJA

From the point of view of knowledge about digitalization in the field of green energy, an important focus of modern online learning methodology is the creation of interactive and engaged experiences for users. Interactive video lessons enriched with interactive elements, such as asking questions during the video, quizzes within the video, the ability to skip certain segments, or go back for better understanding. Users can have access to simulations and virtual experiments that guide them to real-world green energy scenarios, helping them better understand concepts and processes. The content should be prepared in such a way as to encourage the student to actively participate through the solution of interactive tasks and exercises that provide immediate feedback.

Modern online learning platforms provide users with the opportunity to choose courses, modules and resources that suit their needs, interests, and level of knowledge. These options allow tests of the acquired knowledge, this means that at the beginning of learning, users can be offered a test to assess their current level of knowledge to recommend suitable courses or modules. The platforms allow users to track their progress through courses and see what lessons they have already completed and how much they have accomplished in quizzes. Users can choose the learning speed that suits them best, given the time they have available.

Online learning uses a variety of multimedia resources to enrich the learning experience and allow users to learn through multiple channels. Video materials provide visual learning opportunities and allow users to learn from vivid and interactive presentations. Audio lessons, podcasts, and audiobooks allow users to learn while on the go or perform other tasks. Illustrations, graphics, and animations can better explain complex concepts and processes in the field of green energy. Interaction with other students, instructors, and experts in the field of green energy is of great importance in online learning.

The platforms offer a space for discussions and exchange of ideas, where users can ask questions, share experiences, and support each other. The organization of live sessions with experts in the field of green energy allows users to ask questions live and learn first-hand.

Modern online learning platforms put emphasis on the practical application of the learned material so that users can apply the acquired knowledge in real situations. Through exercises and tasks, users can put theory into practice and develop their skills. Platforms can offer projects in which users can work on real-world scenarios in the field of green energy, solving challenges that arise in the industry.

The platforms provide mechanisms for assessing students and give them feedback to help them improve their knowledge and skills. This means that it is desirable that after each lesson or module, users can check

their understanding through quizzes and tests. Professors can provide detailed feedback on assignments and exercises so that users know how they can improve their solution.

For learning to be accessible to everyone, platforms need to be adaptable and allow users to access content on different devices.

- LECTURE CONTENT AND ITS ADAPTATION TO ONLINE CONDITIONS

The key problem that emerged from the analysis of different models of online learning applied during the COVID-19 pandemic is the non-adaptability of teaching content and lessons to the requirements of online learning.

Objectives determine what students have been expected to achieve or learn during the unit, while outcomes accurately describe the measurable results that students should achieve at the end of the unit. The content of the teaching unit should be in accordance with the planned areas and standards for a particular subject or course. Goals should be clear, specific, and measurable. Objectives should answer the following questions: "What do students need to know, understand, and be able to do at the end of this unit?"

When creating and planning the content of the lesson, in addition to professional goals, it is necessary to introduce elements of Bloom's taxonomy of knowledge (e.g., memory, understanding, application, analysis, evaluation, creation) to set goals that cover different aspects of learning. Outcomes are measurable results that show whether students have achieved their goals. Linking goals to activities is the next step. Activities should be aligned with the objectives to enable students to develop the necessary skills and knowledge.

At the end of the course, it is necessary to evaluate the student's achievements in relation to the set goals and outcomes. This should help to assess the effectiveness of the teaching unit and identify areas for improvement.

- Problems and challenges

While online learning brings many benefits, there are also certain challenges and problems that can affect the learning experience in this format. Students may feel the isolation and lack of social interaction that normally occurs in the classroom. This can affect their motivation and engagement in learning. Internet problems, poor connections, technical failures, and difficulty using learning platforms can disrupt the flow of classes and frustrate students and professors. Online learning can lead to a decrease in concentration of students, especially when numerous distractions at home surround them.

Online learning requires more self-discipline and organization for students to follow schedules and complete assignments on time. Students may lack the ability to ask questions and get answers in real-time from teachers, which can lead to uncertainty in understanding the material. Excessive exposure to screens can affect the health of the eyes and cause fatigue. Teachers must adapt to new teaching methods and technological tools to conduct online classes successfully.

In the context of online learning, there is a challenge in assessing the authenticity of students' work, especially when taking tests and assignments remotely.

It is important to recognize these problems and work to overcome them to provide the best possible experience for students in the online environment. This includes supporting students, providing technical assistance, creating interactive and engaging lessons, and constantly improving online learning methodologies.

For example, overcoming the problem of self-discipline in online learning can be challenging, but there are certain strategies that can be implemented to help students stay focused and organized. One of the solutions is to create a timed study schedule with the aim of creating a work habit for students. Then there is the use of tools such as cell phone alerts or assignment management apps to remind students of important obligations. It is necessary to define the working environment in the home atmosphere. Additionally, there are apps and tools that can help students stay organized and productive, such as note-taking, scheduling, and time management apps.

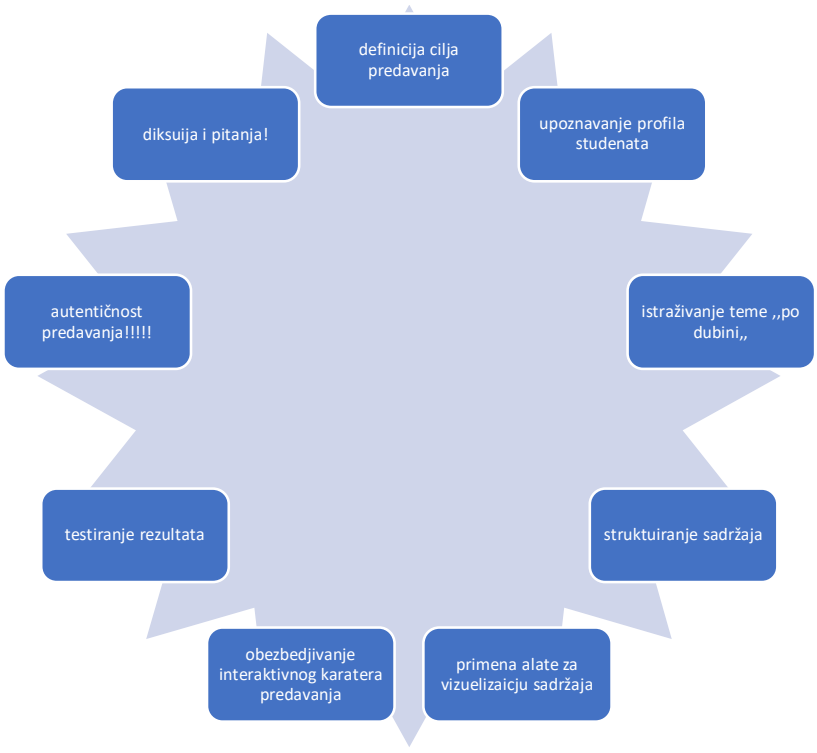
For the effectiveness of online learning, it is extremely important to set adequate short-term and long-term goals, which involves dividing tasks into smaller parts and defining short-term goals that the student should achieve during the day or during the week.

Implementing these strategies can help overcome self-discipline issues and achieve success in online learning. It is important to be consistent in applying these steps and recognize what works best from the student's point of view.

- Conclusion:

Preparing a lecture requires strategic planning and organization to ensure that the lecture is informative, clear, interesting, and relevant to the target group. The implementation of successful online lectures adapted to the virtual environment should take place through the following steps.

Continuous development of online learning is important to ensure a quality learning experience for all students. To ensure this, professors should be encouraged to apply modern techniques and technologies in the development and preparation of the content of the accommodation. It is necessary to apply as much as possible virtual and augmented reality (VR/AR). The introduction of VR and AR technologies allows students to have an interactive experience and practical application of the material. It is necessary to use adaptive platforms that monitor the progress of students and adapt the content and exercises according to their needs and level of knowledge. It is also desirable to make more frequent contacts with the economy through various types of communication platforms. Organizing live video conferences with professors and business experts gives students the opportunity to ask questions and communicate directly with experts.



It is necessary to develop content in the form of short lessons and modules-micro-learning, which are easy to learn and allow for quick learning of certain skills and knowledge. Creating opportunities for

collaboration and teamwork among students so that they can solve tasks together and exchange ideas is also an important factor.

Allowing students to choose specific topics or areas that are of particular interest to them and adapt their educational plan accordingly will make their professional development more professional and will trigger new ideas and new interests. Finally, organizing an online mentoring program to support students in creating their professional path is an activity that should complete the whole of successful online learning.

These new ideas and technologies can enhance online learning and provide a better experience for students, supporting their professional progress and motivation to learn.