Innovations in the Higher Education Process - Good Practices, Needs and Challenges

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Abstract

Innovations are increasingly entering all spheres of economic and social life. Their development and application in the field of education is especially active. It is no coincidence that innovations in the learning process are the subject of national and international research.

The main goal of the current research is: to research, develop, and implement innovative methods in the learning process.

The goal is achieved by performing the following tasks: scientific literature related to the researched issues is analyzed; good practices for using innovations in the educational process at world-renowned universities are analyzed; a comparative analysis was performed between interactive, electronic and traditional textbooks; a survey was conducted among students to investigate the needs for innovations in the learning process; the results of a survey related to the evaluation of an interactive textbook by students are presented.

The results obtained from the research will be useful to teachers, higher education institutions, and corporate training.

The present study presents part of the results achieved in a larger study devoted to innovations in the learning process.

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Introduction

onstantly evolving information technologies have changed the forms and methods of teaching. Innovations in education meet the needs of current and future students, for whom the use of the Internet and software with artificial intelligence are an integral part of their daily lives. Particularly happy with the application of innovation in the learning process in higher education are Generation Z - "digital natives", who require better and easier use of technology, more flexibility in learning and work, require freedom of choice, including on the methods of training. The innovations applied in the process of education in higher education institutions lead to an increase in their competitiveness and provide the training of highly qualified personnel with knowledge and skills for successful professional realization in the modern digital environment.

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There are at least three prerequisites that require the introduction of innovative methods in the educational process in higher education. In the first place. Growing up and living with technology. The modern generation of children has "discovered" the beauty and entertainment of mobile phones, tablets and computers. Moreover, they became a way of life. They are the means by which fees, food and / or bank transfers are ordered. For example, "The generation most interested in digital banking is millennials (79.3 percent), while baby boomers are the least interested (33.8 percent)." (Bennett, R., 2023)

The younger generations have grown up with the latest technology. School teachers use new technologies to send teaching materials to students and information to electronic parents about students. The diaries with the students' grades are visible at any time by the parents. Often, students' homework involves the use of the Internet and a computer. Kindergarten children, school students spend their free time and perform their daily educational duties through the use of technology. And their expectations are that this way of life will continue in the next level of education - higher education.

Secondly. Changing the nature of work under the influence of technology. Technology has changed the nature of work. Online training platforms have been developed for different types of trade. Robots and artificial intelligence have "permanently" settled in the jobs occupied by humans until yesterday. Technology has changed the business and the way business is done, which is another reason to change the educational content of the programs and the way the educational process is organized in higher education institutions.

In the third place. Technology has changed the skills necessary for people to work. Could higher education institutions provide up-todate competencies if they do not innovate in the learning process? For example, can future engineers be trained without introducing innovations in training? Can future engineers be trained without conditions in which modern technological advances are not present. Probably they can, but then we cannot expect scientific achievements and innovative future engineers. The question concerns not only engineers, but also economists and doctors. And the objective answer is that innovation must have a tangible presence in the training of engineers, doctors, economists, architects, as well as professionals from other professions.

Therefore, in the present study, attention will be focused on the innovations that are introduced in the learning process through the use of technologies.

A number of colleges and universities have quickly adapted to change and are preparing students for tomorrow's jobs. With the advancement of technology, there are changes in teaching methods which increasingly include the use of interactive and electronic textbooks, "inverted classrooms", artificial intelligence, multi-media presentations, audio and video lectures. As Dr. Jerry Volcy says (Doctor of Science, Director of the Spellman Innovation Lab) "The ability to use technology is becoming less of an option and more of a requirement." (Innovation Roundup Highlights Technology)

Students from different countries are looking for online learning opportunities. This way of training saves them costs. It is held at a time convenient for them. At the same time, the quality is not inferior to traditional face-toface training.

Communication in social networks required another form of communication mediated by computer technology. Students are so used to this way of communicating that they look for the same in the learning process.

Despite the advantages of information technology in education and the real need for their application in the learning process, there is a discussion about innovations in the learning process in higher education, and in general this discussion is reduced to "for" and "against" the use of technology in training.

The benefits of implementing innovation in higher education are undeniable. Among them are: the engaging and interesting way of teaching that they provide and that the younger generations are used to; reducing the need to print textbooks, which contributes to reducing the destruction of trees. Among the benefits of introducing innovations in education are the facilitated communications between students and teachers, between groups of teachers, groups of students, including opportunities for learning from distance. Last but not least, the introduction of innovations in the learning process allows the acquisition of competencies in students needed to adapt to new working conditions.

Among the opponents of the application of innovations in the higher education process is the understanding that the way of teaching in higher education institutions should be preserved according to the classically known approach of "lecturing", because technology distracts students. The truth is that students who are prone to distractions will do so not only in the use of technology, but also in the classical model of lecturing.

Among the shortcomings of technology is the negative impact of technology on communications. It is argued that students are unable to express themselves properly

communicate successfully due to and the systematic use of technology. In fact, technology provides many opportunities to improve communication skills. Such opportunities are: powerpoint presentations, conferencing video with students for discussion of specific cases. Provided that the teacher is well trained to use technology properly in the learning process, students will not only develop communication skills, but also skills for finding relevant information, analysis and synthesis of information, and logical and creative thinking.

In order to manifest the benefits of using technology in the learning process important are: the understanding, motivation, social responsibility and competence of the teachers who use them. The rule is that the success of the best scientific achievement depends on the people who apply it, is in force here as well.

Methods and Methodology

The main goal of the study is to research, develop and implement innovative methods in the process of education in a specific higher education institution. The goal is achieved through the implementation of the following tasks: the scientific literature and the good practice of world-famous universities in the field of innovations applied in the learning process are analyzed; a comparative analysis between interactive, electronic and traditional textbooks is performed; a survey was conducted among students to research the needs for innovation in the learning process (students with a bachelor's degree, from a specific course); the results of a survey related to the evaluation of an interactive textbook by students studying the discipline "Standards for Social Responsibility" are presented; conclusions about the challenges

related to the implementation of innovations in the process of higher education are drawn.

The object of the research are the innovative methods applied in the learning process.

The subject of the research is: the innovative methods applied in the process of education in higher education, the innovative methods applied in the process of education in world famous universities, the needs of students for application of innovative methods in the learning process, nature and content of interactive textbooks, audio and video clips.

The working hypotheses that will be presented in this study are three. First working hypothesis: Innovative forms of education are an integral part of the educational process of world-famous universities in the USA. Second working hypothesis: Higher education institutions that have high achievements in innovation use innovative teaching methods, which are a prerequisite for these results. Third working hypothesis: The students from the specific higher education institution where the research is conducted show preferences for more interactive textbooks than for printed and traditional electronic textbooks in pdf format.

The students are from a specific university. The students are from the majors "Economics and Business" - first course and Insurance and Social Affairs - third course year.

In the research students from the bachelor degree took part in the research. The number of students who participated in the survey is 62 (sixty-two). The highest percentage is of students aged 20-24. They are 82% of the respondents.

Majors are chosen in accordance with the teacher's program and are not purposefully chosen. Microsoft Forms was used to create

the surveys. Survey distribution was done using Teams.

In the research the general scientific methods will be used: analysis, synthesis, comparison, induction, deduction.

Innovations related to the use of technology in the learning process have been predominantly studied.

Given the scale of the results obtained from the research conducted in the period 2019-2021, only some of the results will be presented in the present study.

Literature Review

At its core, innovation is a "process, activity and result of change" (Chobanova, R.,2012, p. 23).

In order to derive a definition of innovation in education, the scientific works of: Yanitsa Dimitrova, who explores the importance of the culture of innovation, are analyzed. Essential for the purposes of this study is the statement of Yanitsa Dimitrova that the culture of innovation " is an interaction - amongst all the stakeholder groups, the conditions transparency, of maximum ensurina distribution, sharing, generating knowledge, like trust, as a construct that brings together the members of the organization in the realization of its future." (Dimitrova, Ya., 2018, p.39). And this is because without culture, innovation as well as its usefulness can be called into question.

Another important view that is related to innovation is the right environment. We agree with the statement of Valeria Dineva that "Creating a good work environment that stimulates innovativeness and creativity is a multifaceted and lengthy process requiring the use of a comprehensive, integrated and holistic approach, and this process must be sustainable over time. Creativity and

innovativeness are personal qualities, but in order to become evident, they need an environment that motivates them or, more precisely, an innovative environment. The main purpose of the innovative environment is to favor the innovations by stimulating the innovative activity." (Dineva, V., 2019, p.148)

Regarding modern and innovative teaching methods, Margarita Atanasova performs a detailed analysis of "multimedia interactive learning; intranet based training resources; professional networks from which we can receive specialized information and knowledge (LinkedIn); online platforms and trainings; study of practical situations; behavior modeling; webinars, etc."(Atanasova, M.,2015, p.37)

Another author who analyzes the benefits of introducing digitization in the learning and work process is Radka Nacheva. She points out that "Due to the rapid development of modern technology, people with special needs have possibilities for equal access to their working environment. They can access computer resources freely. Nowadays they have opportunities to study, find and start work." (Nacheva, R., 2021, p.76)

And more on that ".....with the new "learning on the go approach" it can be used for good: for learning purposes, in particular in higher education. The m-learning tools have the potential to turn learning into a more attractive, interesting and motivating process of acquiring new knowledge and developing competencies." (Nacheva, R., Vorobyeva, K., Bakaev, M. 2020, p.109)

The benefits of applying innovative methods in the training process are indisputable, given the fact that gamification, for example, is actively applied in company training. As stated in a study of Salzitza Stefanova-Yaneva, Velina Koleva "Gamification could Innovations in the Higher Education Process - Good Practices, Needs and Challenges

increase employee motivation and optimize training time." (Stefanova-Yaneva, S., Koleva, V., 2021, p. 90)

What is required in the modern economy is "a new model of cooperation or competition between machines and people in the workplace, setting new requirements for the educational and qualification level of the workforce and opportunities for professional realization." (Antonova, K., Ivanova, P., 2021, p.61) which even more necessitates the use of innovative methods in the training process.

The change in the nature of the work implies introducing new, innovative teaching methods that will contribute also to the development of digital skills in students. For example, "All audit companies have started mass digitization of the audit file" (Bankova. D, 2020, p.2), which implies working with software products already in the training process. The same applies to the accounting profession, as Ali Veysel "....technologies prove essential impact on the accounting profession - regarding the functions and demand of specialists." (Veysel, A., 2021, p.133), to HR specialists, and to "digital nomads" (Pandurska, R., 2021, p. 37, 38), who must also possess digital skills if they choose this way of working.

As Luben Boyanov claims "With the help of digital technologies, the quality and methods in education are improved. Computers, software programs, the Internet, are no longer the subject of study by relatively few specialists, but are an indispensable part of every field of education" (Boyanov, L.,2021, p.73)

e indisputable, given on, for example, is npany training. As Salzitza Stefanova-"Gamification could" It is no coincidence that the current study examines innovations in the process of learning in higher education. As Zornitsa Yordanova says "Universities are often a dominant stakeholder in the innovation projects

of industries, society and government and an active participant in research for innovative development of technologies, economic and political models and education." (Yordanova, Z.,2021). And in this regard as Rosen Kirilov said: "In modern conditions higher education institutions in the Republic of Bulgaria are faced with the need to significantly reorient their activities towards achieving higher quality of education" (Kirilov, R., 2020, p.184).

From the analysis of the various author's opinions related to innovation, I think that innovation in education is an idea and/or invention that aims to meet the needs and expectations of students and at the same time to give in them competencies with which to adapt successfully in a dynamically changing environment. Moreover, innovations in education are the result of activities carried out through interaction between all stakeholders in the process, creating a motivating environment for innovation, protected from risks associated with the use of modern technologies.

Good practices related to the application of innovations in the process of higher education

The top 5 universities (according to QS World University Ranking of Higher Education Institutions) in the USA for 2019 were analyzed. They are: the Massachusetts Institute of Technology (MIT), Stanford University, Harvard University, Caltech California Institute of Technology, University of Chicago.

The Massachusetts Institute of Technology offers over 2400 free online courses. Many of the courses have full video lectures, free online textbooks, free articles, case studies and shared knowledge of the teachers.

Stanford University has a specially created platform called Stanford online. It presents

various courses and programs. Stanford University also has a dedicated online training platform for continuing education. The lectures of some of the professors at Stanford University can be found for free on You Tube.

Harvard University also offers online training and has a specially developed platform for it - Harvard Online Courses. Lectures by some Harvard University professors can also be found for free on You Tube.

The Caltech California Institute of Technology offers its courses in educational technology platforms. Online courses are free, at university level and in a wide range of disciplines for a global audience. Such platforms are: Coursera, edX. University lectures are also available on YouTube, iTunes U. (Caltech Online Education)

University of Chicago. The University of Chicago Graham school offers online discussion courses available each quarter on a variety of topics. Each course lasts either 1.5 hours or 3 hours once a week for 10 weeks. As this is a live discussion, each class meets in the virtual classroom at a specific time. (The University of Chicago Graham School)

As good examples of a motivating innovation environment in higher education institutions,

25 universities are analysed (Peicheva, M, 2019, p.108-115). They are presented on a website mission.org in cooperation with Vemo (Mission.org). These examples Education include: Arizona State University, Syracuse University, Cal State East Bay, Purdue University, California Polytechnic State University, University of Southern California, Oberlin College, Full Sail University, Babson College, Olin College, University of California — Berkeley, Ivy Tech Community College (Indiana), Iowa State University, Greenville Technical

College, Ohio State University, University of Maryland University College, The University of Chicago, Michigan State University, Spelman College, Stanford University, Howard University, Johns Hopkins University, Rice University, Allen University, Massachusetts Institute of Technology.

Analysis of the results of this study shows that innovations in learning do not end with online courses, online lectures and inverted classrooms. Innovations in education also include various laboratories and institutes at the universities, where students and teachers work together. An innovation in teaching methods is also the attraction of students with creative thinking in various projects that support the sustainable development not only of the university but also of the community.

Comparative analysis between traditional classical textbooks, electronic and electronic (interactive) textbooks

The textbook, which is known among many generations, is printed on paper and contains detailed information on the subject studied.

Many people still think that there is no difference between electronic and electronic (interactive) textbooks. E-textbooks are usually in PDF format, but can also be Kindle Edition (offered by Amazon), plain TEXT format, and many others. "Electronic textbooks - are characterized by a logical scientific sequence of teaching material. Convenience to use anytime and anywhere, especially if it is on magnetic media" (Karavasileva, Zh.,2020,p.42)

In essence, interactive textbooks are e-textbooks that incorporate features such as

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button activation and video and/or business learning game launching and/or the option for students to solve a self-study test in overcoming different levels depending on accuracy to the indicated answers.

We can conclude that the e-textbook is "static". The interactive textbook has a "movement", a focus on definitions of key concepts in the topic, as well as links to scientific publications, videos, discussions, and multimedia case studies related to the topic. Interactive textbooks allow students to solve specific tasks electronically. The examination by the teacher is facilitated, printing paper is saved.

A study conducted at Najran University (Ebied,M., Sh.Rahman, 2015, p.71) shows better results in learning outcomes from students who have been taught with electronic and interactive textbooks and lower results for students who have been taught in printed textbooks. Moreover, the motivation to learn is higher among students who are taught with interactive textbooks.

The main criteria for comparative analysis are presented in Table 1.

The analysis shows similarities and differences between the traditional book textbooks, electronic and interactive textbook. The presented main differences show the main advantages of the interactive textbook, expressed in: presenting the information in an interesting way, receiving relevant information on the topic from various electronic sources; allow to receive the same information on the topic, presented in different ways, which facilitates the perception, opportunities for self-preparation of students by receiving automatic, immediate assessment.

Table 1. Main criteria for comparative analysis between traditional book, electronic and electronic (interactive) textbooks

Criterion	Traditional textbooks	Electronic textbooks	Interactive textbooks
Format	Book	Electronic	Electronic
Text	They contain detailed text	They contain text that can be both detailed and abbreviated	The text is limited. The most important problems, questions on specific topics are entered.
Basic elements in the textbook	Text	Mostly text	Short text, videos, games (related to the material studied), videos with presentations, electronic tests and more
Content of the text	Scientific	Scientific	Scientific
References	They contain references. They can also be found outside the textbook, which takes time.	They contain references. If there are links in the text, they can be read immediately if they are also in electronic format	They contain references. If there are links in the text, they can be read immediately
Students' self-preparation tasks	They contain tasks for self- preparation, which tasks are solved outside the textbook (on other paper and/or electronic media). Newer formats offer answers to questions, solutions of tests in the textbook itself	They contain tasks that must be solved outside the textbook (if they require a thorough answer)	Contains tasks, tests that can be solved in the interactive textbook. The tests offer immediate feedback. To evaluate essays, interactive textbooks include artificial intelligence.
Care for the environment	Destruction of trees for the production of the textbook	Environmentally friendly	Environmentally friendly
Inclusion of other materials from which additional information on the topic can be obtained immediately	No	Yes, but only in cases where there are links leading to other sources of information	Yes
Opportunities to include videos (developed by the teacher) in the text	No	No	Yes
Opportunities for developing computer skills in students	No	No	Yes





Figure 1. Understanding of innovative methods applied in the learning process

Research of students' needs for application of innovations in the learning process

Results of the surveyed students with a bachelor's degree. The number of students who participated in the survey is 62 (sixty-two). The highest percentage is of students aged 20-24. They are 82% of the respondents.

Figure 1 presents the answers to question 1 of the questionnaire "What do you mean by innovative methods" applied in the learning process?" (you can specify more than 1 answer)". The highest number (42%) of respondents understand "pdf textbooks" as innovative methods used in the learning process, followed by: "online games related to the discipline" (40%). 35% of respondents indicate "interactive textbooks", 32% of the respondents indicate "Video lectures / Interactive video of the teacher (s) in the course ", 27% of the respondents indicate "Video prepared by the teacher in which he asks questions on which students have to prepare for lectures", 26 % of respondents indicate "videos" and the same percentage "online tests", 23% indicate "Combination of online lectures and" face to face", 19% of respondents indicate "all possible answers", 18% of respondents indicate the answer "Transfer to an imaginary environment" and 16% of innovative teaching methods understand "Preliminary topics, questions and online discussion".

The answers to the question related to the knowledge of interactive textbooks are presented in Figure 2 (question 2 of the questionnaire (What do you mean by "interactive textbooks"? (Specify one answer)), shows that 68% of students surveyed understand that interactive textbooks include



Figure 2. Knowledge of interactive textbooks



Figure 3. Students' preferences for the type of textbook



Figure 4. Students' preferences regarding the way of conducting online training



Figure 5. Presence of social networks in training

textbooks, in which there is movement (questions to fill out online, videos included in textbooks and others).

Question 3 of the questionnaire "What textbooks do you prefer to use when preparing for the course? (you can give only 1 answer)", is presented on Figure 3. The highest percentage of respondents (40%) indicate classical textbooks, followed by pdf textbooks (34%) of respondents and 26% of respondents indicate interactive textbooks.

Until the research, students did not use interactive textbooks in our learning process.

To question 6 of the questionnaire "How do you prefer to conduct part of your training sessions online?', Figure 4 (you can specify



Figure 6. Reasons for online learning preferences





more than 1 answer) "the highest percentage (63%) stated that they prefer to work in a group with colleagues; 40% of the respondents prefer to work independently and only 19% of the respondents prefer to have individual work with the teacher.

To question 7 of the questionnaire "Do you like to use social networks in education? (You have the right to give more than one answer)", Figure 5, the highest percentage of respondents (37%) gave a positive answer and indicated (You Tube), 29% approve of the use of all social networks in education; 31% of respondents prefer Facebook, 2% of respondents say LinkedIn and 1% say Twitter.

Question 8 of the questionnaire "What do you like most about online learning? (indicate only 1 answer)", Figure 6, the highest

percentage (62%) of respondents said that online learning gives them flexibility because they can learn from anywhere. 19% of respondents say that they like online learning the most, because if they miss a lecture, but the lectures are recorded, they will not have a problem listening to them at another time. 11% of the respondents save their time online. 8% of the respondents are given the opportunity to plan their own preparation, because all materials are available.

Question 10 of the questionnaire "What do you want to find in an interactive textbook? (you can specify more than one answer)", Figure 7, the highest percentage of respondents (65%) indicated that they would like to find interactive tests, 47% of respondents have a preference for "short video with lectures", 40% respondents would like to have a video of the entire lecture; 35% of respondents would like to see videos in the textbook, 24% of respondents would like to have interactive games. Innovations in the Higher Education Process - Good Practices, Needs and Challenges

Results of a survey related to the evaluation of an interactive textbook by students studying the discipline "Standards for Social Responsibility"

After the survey on the needs of students for innovation in education and their desires for the content of the interactive textbook, an interactive textbook was developed on the subject "Standards for Social Responsibility". The textbook contains 15 topics. Each topic contains: a text related to the most important issues on the topic; interactive selfpreparation test for each topic of the textbook (developed in forms); for some topics there are presentations with music, in which the text of the topic is presented in an abbreviated version; for some topics there are videos with keywords, accompanied by music, which explains the basic concepts (videos include cartoon characters who conduct a dialogue); to some of the topics there are videos with cases (again with painted characters), accompanied by music; links to articles related to the various topics of the course;



Figure 8. What impresses students most in the interactive textbook



Figure 9. How do students like the interactive textbook compared to the book

links to videos on You Tube. Professional software was used to develop the videos.

In the survey for the evaluation of the interactive textbook, 22 (twenty-two) students who study the discipline "Standards for Social Responsibility" were interviewed. The survey was electronic. The poll was anonymous. There are 3 questions for evaluation of the interactive textbook. An opportunity for free text was provided to students. The questionnaires were filled in by the students after the exam in the discipline in order to obtain the most objective assessments of the interactive textbook.

To the question "What impressed you the most in the interactive textbook?" (You have the right to indicate only 1 question), figure 8, 38% state that they are most impressed by the self-preparation tests, 33% of the video

lectures, 19% from the text in the textbook and 10% of the videos with keywords.

To the question "How do you like the interactive textbook more than the traditional book textbook?", Figure 9, the students gave the following answers: 43% state that they are attracted by various sources that they can use immediately (links, videos, presentation) while reading; 33% say that it is easier to remember the information in it because the same information is presented through different teaching aids, 14% say that it is more convenient to use; 10% state that they are attracted to it, because it is socially responsible since no paper is used for its production.

To the question "What else would you like to see in the interactive textbook? (only one answer is possible)", figure 10, 48% would like to see more videos with presentations on each



Figure 10. What else would the students like to see in the interactive textbook?

topic; 33% would like to be able to write in the textbook (e.g. to fill in forms), 14% videos with the teacher; 5% want to see keyword videos on all topics. There is no student who has indicated that they would like to have more theory.

Where free text was provided by students, the comments were very positive.

Conclusion

The results of the study provide an opportunity to draw conclusions related to: the scientific literature and good practice of world-renowned universities in the field of innovation applied in the educational process; analysis between interactive, electronic and traditional textbooks; the results of the survey among students.

First group of conclusions that relate to the scientific literature and good practice of world-renowned universities in the field

of innovation applied in the educational process:

First. Definition of innovation in training. In its essence, Innovation in education is an idea and/or invention that aims to meet the needs and expectations of students and at the same time to give them competencies making them capable to successfully adapt to a dynamically changing environment. Moreover, innovation in training is the result of activities carried out through interaction between all stakeholders in the process, creating a motivating environment for innovation, protected from risks associated with the use of modern technologies.

Second. Confirmation of the first working hypothesis of the research. The results of the study of good practices in the application of innovations in higher education confirmed the working hypothesis set at the beginning of the study. It has been proven that, according

to the limitation of the study, the leading universities in the world rating systems in the USA (the Massachusetts Institute of Technology, Stanford University, Harvard University, Caltech, University of Chicago) actively apply innovative forms of education and are present in social networks.

Third. Confirmation of the second working hypothesis of the research. The analysis of the 25 Examples of Excellence, linked to Higher Education Innovation, proved the second hypothesis of the study that higher education institutions that have high achievements in innovation use innovative teaching methods, which are a prerequisite for these results. The definitions of innovation in teaching cited by scientific theory have been confirmed. And in particular this part of them related to the appropriate - supportive environment. The analyzed 25 examples showed that innovative universities are innovative because they have created an appropriate environment in which students have the opportunity to use their imagination in various university projects, to use science fiction stories, to work with professors. It has also been proven that innovations in learning do not end with online courses, online lectures and inverted classrooms. Innovations in education are also the various laboratories and institutes at the universities, where students and teachers work together. Innovation in teaching methods is the attraction of students with creative thinking in various projects that support sustainable development not only of the university but also of the community.

Fourth. Innovation in the learning process requires an interdisciplinary approach. The joint work of teachers and students with interests in various fields (engineering, medicine, economics, etc.) is a prerequisite

for successful development and introduction of innovations.

Fifth. Construction of laboratories for the development of innovations in higher education. The results of the study showed that the success of training depends on constant and joint work between the stakeholders in the training process. This rule is especially valuable for the quality of education, the development of curricula and the practical preparation of students with the use of software used in practice.

Sixth. Technology has affected all areas of our daily lives, including learning activities. Higher education institutions are forced to adapt their learning processes to Generation Z, which is already here and requires better and easier-to-use technology, more flexibility in teaching and work, and freedom of choice.

Comparison analysis between interactive, electronic and traditional textbooks:

First. Interactive textbooks are differ from traditional book textbooks and from pdf electronic textbooks. The e-textbook is "static". There is a "movement" in the interactive textbook. Interactive textbooks allow students to solve electronically specific tasks set in them. The examination by the teacher is facilitated, printing paper is saved.

Second. Interactive textbooks allow obtaining the same information from different sources. They can include videos, interactive case studies, games, links to discussions on a specific topic. There is evidence that interactive textbooks help to achieve higher results for learners and motivate learners.

Third. It should be borne in mind that the size of the text in the paper textbook and that in the interactive textbook is radically different. This implies rethinking the text and

striving to present important information in as few words as possible.

Fourth. It is necessary to know in advance what the possibilities for sharing an interactive textbook that has been developed with specific software in the platforms where the training takes place are. In the process of developing the interactive textbook, specialized software for interactive textbooks was used, but later it turned out to be impossible for the textbook to be shared in Microsoft Teams and Moodle. This necessitated a redesign of the textbook so that students could test and evaluate it.

Results of the survey among students:

First. Students have a clear understanding of innovation in learning. They link learning innovations with: pdf textbooks, online games related to the discipline, interactive textbooks, Video lectures / Interactive video of the teacher (s) in the discipline and others that make the learning process more interesting, fun and easier to master difficult material.

Second. Knowledge of interactive textbook theory. Students have an excellent understanding of the nature of the interactive textbook, but the lack of practical experience in its use is a prerequisite for low evaluation of its usefulness.

Third. Confirmation of the third working hypothesis of the research. Students appreciate the usefulness of interactive textbooks, especially when they are designed according to their needs. Based on the results obtained from the students' wishes regarding the content of an interactive textbook, one was developed in the discipline "Standards for Social Responsibility". Students were given the opportunity to get acquainted with the textbook and evaluate its usefulness. The results showed that after using the interactive Innovations in the Higher Education Process - Good Practices, Needs and Challenges

textbook, students prefer it to the paper textbook and pdf books. This confirms the third working hypothesis of the study.

Fourth. The main advantages of the interactive textbook according to the students are that they are attracted by various sources that they can use immediately (links, videos, presentation) while reading; it is easier to remember the information in it because the same information is presented through different teaching sourses of information. Students say interactive textbooks are more convenient to use and say they are drawn to them because they are socially responsible, as no paper is used to produce them.

Fifth. Students appreciate the efforts made to develop an interactive textbook. Students took the time to give feedback on their words about the interactive textbook. Their words show that they appreciate the efforts made to develop the interactive textbook on "Standards for Social Responsibility". Their appreciation of the efforts is high because they have excellent computer skills and can judge for themselves how many competences are necessary to create an interactive textbook.

The analysis shows that innovation is significantly present in the learning process. E-learning and its variety - m-learning will have an increasingly active presence in the learning process. The analysis also shows the "transfer" of education on social networks such as Facebook, Twitter, LinkedIn, YouTube and various learning platforms that may be owned by universities and / or they may present their courses there. Interactive textbooks are becoming more and more active in the learning process for adults as well.

In the future, the competition of universities will be related not only to the content of the teaching materials they offer, but also to the

way in which this content is presented, as well as the flexible learning opportunities offered by them. Successful higher education institutions will be those that manage to make the learning process an exciting task that the student can experience at a time and place convenient for them. This, in turn, is associated with serious investments in specialized softwares for training and systematic training of the teaching staff.

The world has changed. Honesty and responsibility require universities to prepare their students for this change. And the more honest they are with their students, the better their reputation will be because "In the foundation of a good reputation is honesty." (Penchev, P., 2020, p. 465)

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