

Digitalization and New Skills In the Workplace

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Abstract: *Schumpeter's theory of creative destruction for explaining economic development provides a current economic foundation for the explanation of growth in the digital economy. In line with this, entrepreneurship and new knowledge are the main driving forces in the digital economy. The destructive elements of Schumpeter's philosophy in the short and medium term cannot be ignored. First of all, it can be noticed that has been a lag between the introduction of new ways of doing jobs and labor displacement from the old economy into the digital one. Namely, creative destruction does not immediately diminish the pain of job losses. This is particularly true when workers lack a formal education or skills that would provide them with easy transfer to the new economy. In this context, it is necessary to develop a new form of education that will respond to the new demands of the digital economy. The article was done to determine how new technologies and new demands placed on employees, have led to a redefinition of forms of work and education. Competency-based education can provide, without much difficulty, a transition from school to the workplace. In line with this, there is an opinion that the future of work cannot be imagined without competency-based education. To explain a better idea of this approach to education, we shall discuss the competency-based education definition and compares it to traditional education. Also, the study tries to link education based on competencies with success in the workplace. It has been used in research on existing literature as well as my own research. We can conclude that employers must be confident that graduates have not only a theoretical knowledge of a subject but also a strong ability to apply theories to real-work situations. f workers will need to gain new skills to advance their occupations, as compared to only 6% before the pandemic. In this context, reskilling is a top priority in the near future. This is important because the fourth industrial revolution comes with quite a competitive labor market, where only the best of the best can be employed.*

Index Terms: *Personalized learning, competency-based education, students, workplace success, digital economy*

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1. INTRODUCTION

Schumpeter defined innovation as "a combination of developmental changes." Accordingly, taking into account the definitions of innovation in the literature, we can conclude that the general characteristics of innovation are the application of new ideas, and the improvement of existing ones and inventions (Tekinaruk and Tekdogan, 2015). They contribute to and accelerate the development of new technology innovation processes (Kasper and Clohesi, 2008). With the universal reach of the Internet and the used smart devices, "a new age of any-time and anywhere education is dawning". Based on research predictions, the future of higher education is deemed to have a strong virtual presence. Universities seek to renovate many of their proposed programs into permanent online programs (Shoaib Farooq, et.Al.,2017, Vučeković, et al. 2021).

Accordingly, innovative infrastructure and systems must be implemented using partnerships with technology providers to guarantee data security and sustainability. In this regard, the issues of planning, designing instructions and developing online teaching programs are especially inspiring, as well as health promotion and health risk management that accompany learning in a virtual context. In line with this, we shall consider only the most recent sources relevant to the topic. Competency-based education is considered to be a new and developing area of higher education in social sciences. CBE became especially popular during COVID-19 and continued to be of interest among scholars afterwards.

Competency-based education (CBE) targets competencies that relate directly to workplace tasks (Radović Marković, Vučeković, Marković, (2021). Through competency-based programs, students can earn their degrees and acquire business-ready skills. In this context,

competency-based education is beneficial for students, learning institutions, and employers.

As advances in IT appear, E-learning emerges as the revolution of modern education (Radović- Marković, et.Al., 2021, Nigam and Rajendra, 2019). During the years 2020 and 2021, it became a vital tool to educate students. The courses and the curriculum have been transformed virtually, simplified, and streamlined to make learning easier for people and to aid them in practising social distancing.

- Higher education should take this chance to innovate and reconsider its education strategies.
- Future online collaboration and method development are needed to emerge and improve education in the fourth revolution. Education post-pandemic is all about maximizing technology-related efficiency gains.
- Higher education should seek to comprehend innovation in the educational field and develop strategies to better interact with the latest digital trends. "The combination of critical education principles with a digital participation culture implies the growth of curricular strategies that allow learners to transform their online participation into meaningful acts of learning".

The paper aims to discuss the development of a new model of education and need for the new skills during and after the pandemic. Also, the goal is to analyze how the new model of education can meet the demands of the workplace.

2. THEORETICAL OVERVIEW

The digital transformation of higher education is a current issue that was further fueled by the COVID-19 pandemic. Utilizing the potential of IT should contribute to reducing the vulnerability of the education system and increasing its resilience to external risks and dangers. At the same time, the use of the potential of modern IT should contribute to improving the quality of life and health, increasing employment and work efficiency, as well as the greater economic well-being of individuals, the economy and society as a whole.

The results of research during the COVID pandemic of 19 authors of different theoretical views confirmed the numerous risks and dangers that accompanied online teaching, starting with health (anxiety, mental problems, etc.) through organizational (technological equipment), pedagogical or didactic methodological (pre) workload of students,) socio-economic and

others. The dependence of online teaching on the technological equipment and supply of equipment was a great challenge for institutions, professors and students. However, the pandemic has exposed weaknesses and deficiencies in current education systems. Educational establishments are confronting challenges to adjusting virtual learning and choosing the right methods and techniques for teaching and appealing to their students. Based on the international recommendations and strategic documents related to the development of education until 2030, it promotes the development of digital skills in higher education. On the other side, the employees' work and labor market are characterized as competitive, dynamic, risky, complex and interdisciplinary. Thus, it is necessary that higher education allows individuals to organize themselves for their introduction to such an environment and prepare them with the relevant skills, knowledge, ethics, and attributes to succeed in it (Radović-Marković, et.al., 2022 a).

One number of researchers investigated the impact of different aspects of the university curricula and their impact on the development of professional identity, from the perspective of students. Education and identity are two closely related topics. Students' online identities, over which teachers have rather limited control, deserve special attention. The importance of issues related to identity becomes even greater when we accept the idea that identity is the basis from which students' engagement in the content of the subject begins, as well as communication with others. Professional identity is an area of interest to educators and researchers because of the importance it has to the future practice of students in the workforce and the possible challenges associated with the work environment. The professional identity largely depends on lecturers who instil the appropriate professional knowledge and values in their students.

Training of human resources for certain jobs is performed primarily in terms of increasing the knowledge and competencies of employees, to better respond to work tasks (Radović-Marković, 2011, p.39). In recent years, general competencies have been specifically considered in education research (Barth et al, 2007; Canto-Sperber, Dupuy, 2001; Holmes, Hooper, 2000). Given the fact that university programs play an important role in preparing students for the workforce by promoting the development of

professional identity, qualitative research has explored this area. For example, Ashby, Adler, and Herbert (2016) investigated the impact of different aspects of the university curricula and their impact on the development of professional identity, from the perspective of students. Professional identity is an area of interest to educators and researchers because of the importance it has to the future practice of students in the workforce and the possible challenges associated with the work environment. In this context, “education plays a crucial role and significantly determines whether its outcome will be —passive imitators or —active, creative contributors “(Radovic Markovic et.al., 2012 p.78).

Current research illustrates the importance of digitalization in higher education. Digitization is transforming the learning experience, first by the usage of new technologies as well as the production and dissemination of technologies, and second, by participating in the creation of a knowledge society (Radović-Marković and Djukanović, 2022). A lot of effort is being devoted to furthering the work methods and communication among students and professors, aimed at bettering the quality of this kind of studying (Radović-Marković, 2010; Radović-Marković, et.al., 2021). In this context, managers, and creative leaders, can use a wide range of new, technologically supported options in formulating their strategies. They are increasingly using it in business to meet changes, not just react to them. Therefore, it is necessary to permanently increase the skills of managers and the environment for continuous improvement through learning to use IT tools to expand innovative skills in business (Radović-Marković and Djukanović, 2022).

3. CHALLENGES FOR EDUCATION SECTOR

Main differences between competency-based education vs traditional education, specifically in core areas such as school culture, learning continuum, instruction, assessment, and grading system.

“In traditional learning systems, students are passive participants on all the education levels. Their creativeness is not encouraged, nor is challenged to think critically and originally” (Radović-Marković, et.al.2020, p. 1). In addition, the big difference between both educational models is in their structure.

In competency-based education, every student is entitled to receive personalized instruction. In personalized learning, instructors work collaboratively with community partners and students to develop a unique learning program and competency for each student based on interests, learning needs and work circumstances. They will be guided at every step of the learning process and will receive feedback from their instructors immediately. In addition, competency-based education grading is not as rigid as the traditional approach to learning. In competency-based education, students only need to re-learn the competencies they have not yet mastered. Namely, a student’s competency contains three elements: knowledge, skills, and abilities. It involves the ability to meet complex demands as follows:

- Understanding of key concepts and Digital content
- Ability to apply knowledge to workplace problems
- Mastery of relevant skills

This new learning approach measures the knowledge, skills and experiences the students acquire during a training period. It is focused on results.

A lot of effort is being devoted to furthering the work methods and communication among students and professors, aimed at bettering the quality of this kind of studying (Radović-Marković, 2010, Naderibeni, Salamzadeh, Radović-Marković,2020). The teacher should therefore design the lesson and learning content with the understanding that students have different cultural and educational backgrounds that influence their learning and include different teaching styles to meet all student needs.

4. DEVELOPING EDUCATION STRATEGY BASED ON INDIVIDUAL CENTERED PEDAGOGY

The innovative practices in education should help learners work on building their knowledge by defining things which are especially important to them, and in the process, strengthen their sense of self and individuality. They also involve developing students’ personal qualities, including a strong sense of responsibility to oneself and to others. In other words, the new education model should be based on an individual’s growth and be able to foster individuality, flexibility and personality enabling the development towards the following:

- Apply knowledge to workplace problems
- Foster creativity and critical thinking
- Students earn business-ready skills
- Beneficial for students, learning institutions
- Developing professional identity
- Outcomes more important than time

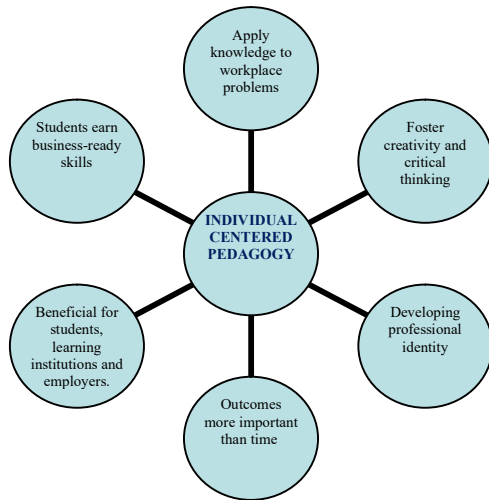


Fig.1. Developing education strategy based on individual-centred pedagogy (personalized learning)
Source: Author

5. RECOMMENDATION FOR FUTURE RESEARCH

The main aims and ambitions for future research are:

1. To determine how a student develops an online identity.
2. To examine behavioral identities that contribute to the effectiveness of the study.
3. To determine how the university e-learning programs play a role in shaping the academic and professional identity of students?
4. To define the effective student community when members are never seen face to face, and personal characteristics can be obscured and mitigated.
5. To determine whether there are differences in distance learning depending on the scientific field (social, technical and medical).
6. To determine whether there are differences in the factors that affect the success of distance learning depending on the level of study (undergraduate, master, doctoral).
7. To learn how to improve each course in the study program and adapt them for distance learning.

8. To learn how to prevent and reduce health risks for students that distance learning brings with it.

9. To provide the guidelines on how higher education institutions, through distance learning, can provide competencies to students who are expected to possess them in accordance with the National Qualifications Framework.

10. To provide guidelines to higher education institutions in Serbia on how to follow world trends in the field of distance learning.

6. CONCLUSION

Our research conducted in Western Balkans showed that digital skills are becoming an important prerequisite for employment, but a significant portion of the population still lacks the skills needed to function in a digital business environment. However, most of them do not have enough of these competencies relevant to starting their entrepreneurial businesses or filling jobs where there is a need for advanced digital skills. Those with the lowest levels of digital skills would be most affected, as well as those who are least willing to upgrade their skills. Accordingly, it is necessary to promote digital entrepreneurial skills and introduce them into education programs through different forms and levels of education (Radović-Marković and Marković, 2022).

According to Farooq (2017), the lecture capture system (LCS) is the one which is being offered to enhance the flexibility of the learning environment for attracting executive business students. Despite the sudden migration of universities and other educational institutions to online platforms during the COVID-19 pandemic, all challenges need to be explored and transformed into positive opportunities for staff and students. In this context, higher education will need to have educators trained and equipped with digital technology for a smooth teaching-learning process.

We can conclude that employers must be confident that graduates have not only a theoretical knowledge of a subject but also a strong ability to apply theories to real-work situations. Since cross-trained workers are much more flexible than other workers. Namely, this type of education allows for greater flexibility and adaptability to a work environment that changes rapidly. This gives all students a big chance to succeed in their chosen modality of work.

Accordingly, universities will need to expand and revise their curricula if they are to educate students for a digital future and remote work.

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