Successful E-learning: Wishful Thinking or Reality?

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Abstract: *Technology is developing at an unprecedented pace, and this is affecting the education system as well. This is especially true in the context of the COVID-19 pandemic, the consequences of which we are still feeling. Basically, COVID-19 has accelerated the inevitable change that has already begun and that has received an incredible boost on the way to the introduction of e-learning. In this paper, the authors explore the question of whether e-learning at the University of Rijeka (UNIRI) Constituents' is really at a level where it can be said to be e-learning in the true sense of the word and whether it can be classified as successful. Since e-learning is an upcoming educational trend, it deserves special attention and a concrete assessment of its current status so that policymakers can direct their actions toward improvements. Regardless of the outcome of this research, one thing is very clear: education and educational policy will never be the same again.*

1. INTRODUCTION

Online learning is described as education that occurs partially or completely online and makes information or knowledge accessible to users regardless of time constraints or proximity to the instructor (Sun et al., 2008). Moreover, any formal educational strategy involving instructors and students interacting remotely over the Internet is known as e-learning (Beqiri et al., 2009; Fazlollahtabar & Muhammadzadeh, 2012; Pham et al., 2018). Therefore, e-learning brings together the two key domains of learning and technology, however, it is not a novel learning model since the phrase was first used already in 1983 by Mary Alice White (Aparicio, et al., 2016). Information and communication technology (ICT) developments are transforming all industries and sectors, including higher education (Pham et al., 2019). Concerning globalization, the majority of businesses are relocating to a worldwide marketplace, and the rise of e-learning platforms has proportionately raised the demand for online and remote learning programs in higher education institutions (Harper et al., 2004). Information technologies, such as e-learning management platforms, have witnessed a gain in power and a decline in cost due to technological innovation, which has contributed to their high acceptance rate (Lee, 2021). E-learning supports the digitization of universities and the development of a technologically advanced society, while equal access to educational opportunities can promote individual stability, community security, and economic growth (Pham et al., 2019; Taylor, 2007; Zaghar, 2022). Therefore, it is crucial to establish the current state of e-learning to develop education policies oriented to the increase of advanced technological society, higher rate of graduates and more accessible education in order to contribute to economic growth and development. The flexibility provided by the e-learning platform appeals to students who are employed or have families (McEwen, 2001). However, implementing e-learning comes with challenges for both students and professors (Gopal et al., 2021). The COVID-19 epidemic, according to 86.7% of students worldwide, caused

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the cancellation of onsite classes (Aristovnik et al., 2020). Due to the COVID – 19 pandemics and the fast transition from in-person to online learning several difficulties for both higher education institutions and students were identified considering e-learning. Nonetheless, students indicated higher levels of satisfaction in all areas of their academic performance and daily lives (Ravšelj et al., 2021).

There is a growing number of e-learning courses around the world and more and more universities are promoting this type of learning programmes. Two years ago, the education system had to face a fast transition to e-learning due to the COVID-19 pandemic. Mostly the transition came fast and unstructured; it was a huge shock for the education system worldwide. Moreover, there are ongoing debates about the quality of e-learning and therefore it is necessary to assess the current state of it. This paper aims to investigate the current state of e-learning at the University of Rijeka (UNIRI) taking into consideration other factors besides technology, such as people and processes. In addition, this paper will determine the main advantages and disadvantages of e-learning at UNIRI in order to be able to give recommendations for improvement. Finally, the research question that arises is: Is the University of Rijeka ready to fully implement e-learning successfully?

2. SHORT OVERVIEW OF THE PRESENT STATE

In 2021 in Croatia there were 77% of PC users and 85% of the population had internet access (Croatian Bureau of Statistics, 2021). The data for this paper was gathered in 2020 so to be consistent the number of student Internet users in 2020 was 91%, but already in 2021, all students and pupils used the Internet (Croatian Bureau of Statistics, 2021). Croatia has 116 study programmes in English but zero online and 17 online studies in Croatian with accreditation in 2022 (Croatian Ministry of Science and Education, n.d.). Before 2020, there were only seven online study programmes and according to Ježić (2021) before the pandemic, most universities in Croatia have never truly accepted the concept of e-learning. This is clearly an indicator that something went well with e-learning during the so-called "forced transition" to it due to the circumstances. Moreover, UNIRI has 17 constituents and in 2020, it had almost 16.700 students. UNIRI has 15 study programmes in English, out of which zero are online. However, it does have three Croatian online study programmes with full accreditation. It is important to emphasize that the Faculty of Economics and Business (EFRI) had 100% of its courses online on Merlin already in 2013/2014. In 2015/16, it has started with the online university graduate programme that lasts two years and in 2019/20 with the online university undergraduate programme of three years. The third online programme starts this year as a one-year university graduate programme at the Faculty of Tourism and Hospitality Management (FMTU).

3. RESULTS AND DISCUSSION

The data in this paper are from the research done by the Quality assurance and improvement committee at UNIRI. After analysing the data from the Quality Committee, the authors present an independently made SWOT analysis and give comments about e-learning at the UNIRI and how to improve it. The aim was to assess the quality of e-learning during the COVID-19 pandemic. The research was focused on teaching staff' and students' perception and experience of the new learning model. There were two questionnaires open from March to May 2020. The response rate for students is 18% (N=2.747) and for the teaching staff 36% (N=461).

The following Table 1 and Table 2 present the assessment of the quality of teaching in an online environment from the point of view of teachers and students.

Table 1. Teaching staff assessment of the quality of teaching in online environment

Constituent	N	Mean	SD
APURI	72	3.6	1.0
EFRI	523	4.4	1.0
FDM	31	3.7	1.1
FFRI	193	3.3	1.2
FMTU	313	4.5	0.8
FZS	137	3.0	1.2
GRADRI	66	3.4	1.0
MEDRI	217	3.2	1.3
OBRI	39	3.5	1.1
OFRI	34	3.5	0.9
OIRI	43	3.6	0.9
OMRI	60	3.5	1.0
PFRI	148	3.0	1.4
PoliRI	41	3.8	1.1
PRAVRI	258	3.7	1.1
RITEH	138	3.7	1.0
UFRI	88	3.3	1.2
UNIRI	2401	3.8	1.2

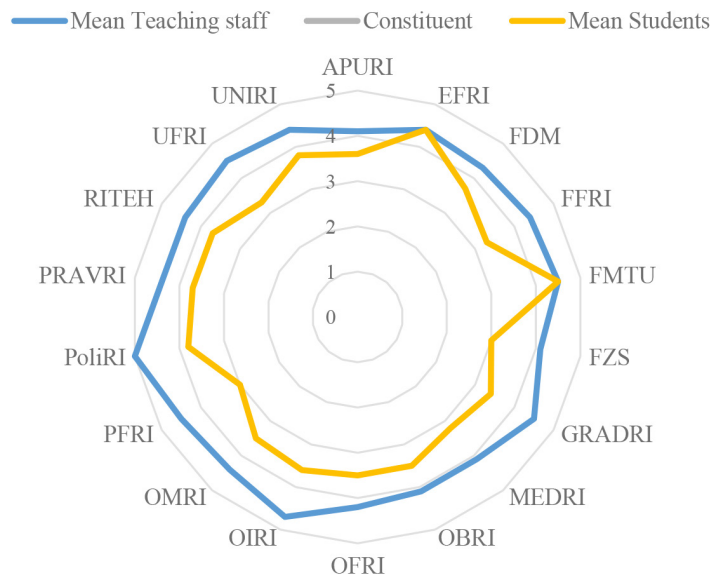**Source:** Quality Assurance and Improvement Committee at UNIRI, 2020.

Table 2. Student assessment of the quality of teaching in online environment

Constituent	N	Mean	SD
APURI	18	4.1	0.8
EFRI	27	4.4	0.4
FDM	6	4.3	0.3
FFRI	68	4.4	0.4
FMTU	25	4.5	0.3
FZS	10	4.1	0.9
GRADRI	25	4.5	0.3
MEDRI	34	4.1	0.8
OBRI	12	4.1	0.5
OFRI	13	4.2	0.5
OIRI	10	4.7	0.3
OMRI	5	4.4	0.3
PFRI	16	4.5	0.4
PoliRI	2	5.0	0.1
PRAVRI	20	4.4	0.5
RITEH	32	4.4	0.6
UFRI	12	4.5	0.3
Unknown	45	4.3	0.4
UNIRI	380	4.4	0.5

Source: Quality Assurance and Improvement Committee at UNIRI, 2020.

The overall mean for the teaching staff at UNIRI is 4.4 out of 5 and for students 3.8. From these tables, it is noticeable how teachers and students perceive and value quality differently. However, it must be emphasized that this transition to e-learning was quick, unplanned and forced, therefore these grades were more than satisfactory.

The next figure depicts the difference between the quality assessments of the two groups.

Figure 1. Comparison of teaching staff and students' assessment of teaching quality
in the online environment

Source: Quality Assurance and Improvement Committee at UNIRI, 2020.

Figure 1 clearly illustrates that students in general assessed the quality with approximately one grade less than their professors did. However, it can also be noticed that the only two constituents, with which teachers' and students' grades match, are EFRI and FMTU, which are the only two Faculties at UNIRI that have accredited online study programmes. Figure 2 outlines the teacher grades for different particles regarding holding online classes.
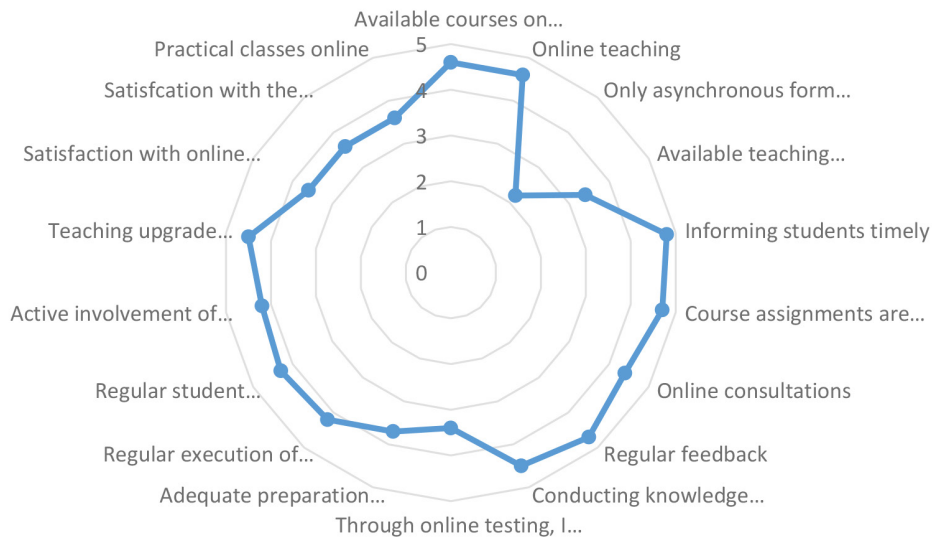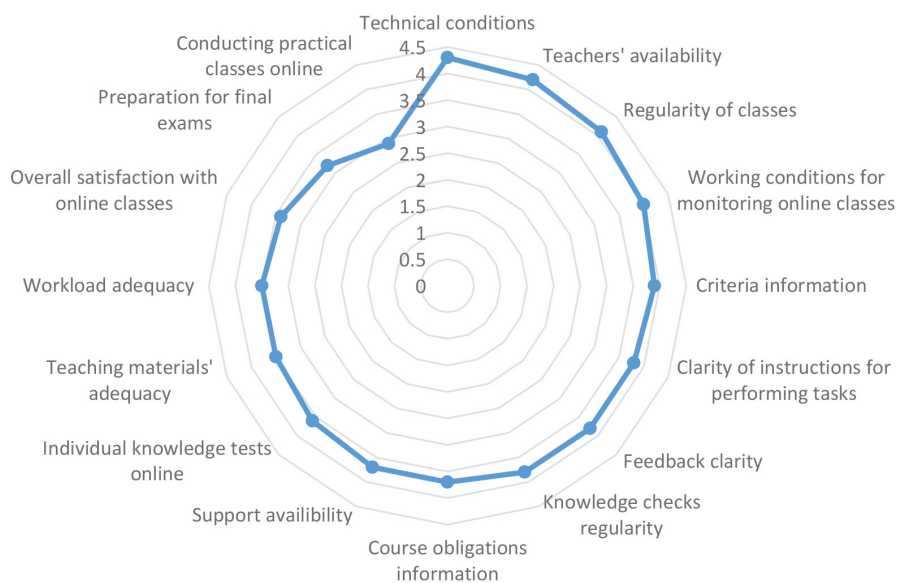

Figure 2. Teaching staff grades of particles regarding holding online classes

Source: Quality Assurance and Improvement Committee at UNIRI, 2020.

In early 2020, almost everyone had available courses on digital platforms and used online teaching. An asynchronous form of teaching was barely used and the biggest challenges for the teaching staff were the objectivity of checking the individual knowledge and holding practical classes online, which is in line with the literature.

Figure 3 illustrates the students' assessment of the particles related to online classes.

Figure 3. Student grades of particles regarding holding online classes
Source: Quality Assurance and Improvement Committee at UNIRI, 2020.

Student grades are mostly consistent throughout the questionnaire. They were most satisfied with the technical conditions and teacher availability, which is consistent with the findings of Aristovnik et al. (2020) who even state that Europe and Oceania were the global frontrunners at the time. The students were least satisfied with the preparation for final exams and practical classes, which is in correlation with the teachers' assessment as well.

Table 3 presents strengths, weaknesses, opportunities and threats that were identified as crucial following this research and previous literature.

To identify just a few strengths, it is crucial to emphasise the practice in online teaching, available courses on digital platforms, and available licenses for videoconferencing tools. It is interesting to see that following this research technical challenges and lack of knowledge and training of the teaching staff are not emerging as problematic even though in the literature these are often addressed as the biggest challenges in e-learning. It is also important to emphasise that the lack of experience in online classes cannot be used as an excuse anymore since most of the world faced the transition to online teaching environment during the COVID-19 pandemic.

Moreover, Coursera, which is an online learning platform where UNIRI students can enroll in a huge number of courses worldwide, can be seen as a source of competitive advantage over the Universities without that possibility as well as a step towards internationalization and making knowledge more available. The flexibility of e-learning enables students to become more independent and rationalise their time more effectively.

Some of the identified weaknesses are the objectivity of teaching evaluation procedures, objectivity in evaluating individual knowledge and difficulties with practical classes. This indicates that greater effort has to be directed toward the evaluation aspects of e-learning. It is necessary to develop standardized and structured guidelines and educate the faculty about the various possibilities in that field. Moreover, it is necessary to understand that some practical classes cannot be done remotely, however, it could be possible to use different technological tools to get close enough depending on the field of study. It is also strongly recommended to combine

different teaching techniques and technological advancement to provide the best experience for the students with the best effect. The latter might have an effect on lowering the number of student dropouts in an e-learning environment.

Table 3. SWOT analysis

STRENGTHS	WEAKNESSES
• Available courses on digital platforms • Practice in holding online classes • Technical conditions • Achieving all learning outcomes • Students' competencies for using online platforms • Institutional support • Referral to existing online education • Available Licenses for videoconferencing tools • Coursera available for all employees and students at UNIRI • Increased student activity and independence • Gaining new experience and developing digital skills • Flexibility • Geographical independence • Time rationalisation • Teaching staff availability • Good pedagogical/didactic/methodical knowledge of teachers	• Objectivity in evaluating individual knowledge • Practical classes, laboratory classes, practicum classes • Preparing for online classes is more time-consuming • The objectivity of teaching evaluation procedures in a way that reflects students' competencies • Organized collaborative support • Provided technical support in the preparation of online classes • Overload and greater time engagement • High drop-outs of students
OPPORTUNITIES	THREATS
• Establishment of institutional platforms for online teaching • Institutional guidelines on establishing and conducting online classes • Organized education for teachers and associates • Merlin system upgrade • Larger pool of potential students • Increased collaboration - YUFE • Competitive advantage • Cost reduction • Decrease in student migration	• Social isolation • Health issues due to excessive online work • Self-motivation and proper time management • Total focus on productivity • The questionable credibility of the knowledge assessment • New online programmes from competing universities • Technology advancement • ICT prices • Internet subscription prices • Integrity of online programmes

Source: Authors' compilation

Considering the opportunities, collaboration, larger pool of potential students and competitive advantage are emerging as most interesting ones. For sure, e-learning can attract a larger number of students and provide an important source of competitive advantage in times of demographic issues and an increase in the number of educational institutions. In this regards, it is recommended to think about increasing the number of online courses and programmes and it is highly advisable to consider increasing the number of study programmes in English. This would allow a faster integration in the European and world education area, higher internationalization and an even larger number of possible students. UNIRI is also a part of YUFE[3] network (Young universities of the future of Europe) and this presents big opportunities for the future as well. Finally, it is also important to point out the financial implications, namely, e-learning is known to reduce the costs of education. However, it does imply bigger investments in infrastructure, IT equipment and staff education at the beginning but it does generally decrease the costs in the

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[3]   https://yufe.eu/

long term. Moreover, e-learning is contributing to lowering the students' migrations due to the possibility of remote participation in education. So not only that e-learning is making education more available but at the same time these students might contribute to the development of their local communities by being present there and applying the newly gained knowledge. Since these students are not migrating and leaving the possibility of returning to their local communities open and often questionable, they are able to start developing their environment much earlier. With activities such as volunteering, internship, local engagement, knowledge sharing, and informal education to name a few, one can contribute to local economic growth and development, which is why it is important to have educated and capable people in every community.

Finally, some of the identified threats are social isolation, self-motivation problems and the integrity of online programmes. It would be helpful to establish mental health centres within the universities to provide professional support for the students facing some difficulties regarding the identified threats as well as any other not mentioned in this paper. The integrity of the programmes can be tackled together with the evaluation problem mentioned within the weaknesses since these two are highly correlated. By constantly improving and innovating e-learning programmes it is possible to minimize the threat of new online programmes from competing universities.

UNIRI, as well as everyone else included in the education system, has to work on eliminating the weaknesses and mitigating the threats systematically and intuitively, while at the same to exploiting their strengths and seizing opportunities.

4.   FUTURE RESEARCH DIRECTIONS

Considering e-learning as a global phenomenon, the change came fast, it was applied even faster and it is here to stay. The first proposition for future research is to apply this study to other samples. It is possible to analyse other Universities in Croatia and other countries and then make a comparative study in order to be able to generalize the results globally. Moreover, it is recommended to examine the situation after the COVID-19 pandemic. Finally, it would be interesting and scientifically important to make a comparative study observing the pre and post-pandemic situation based on the used methodology.

5.   CONCLUSION

There is an increase in the number of online study programmes all around the world. Moreover, the content delivery is transitioning from linear to interactive. The biggest identified challenge of e-learning is the evaluation of students. Therefore, it is necessary to educate the teaching staff about evaluation methods that are efficient in e-learning. Models of effective evaluation in the online environment are already being discussed on numerous quality forums, and new and efficient evaluation models will be developed in the upcoming period. Moreover, it has to be emphasized that e-learning enables universities to integrate into the European education area and facilitates the transformation of society. Consequently, it is crucial to work constantly on its improvement in order to be competitive and in line with market trends and needs. E-learning is still in its infancy in Croatia, however, there are some examples of good practices that lead to changes and pave the way for progress for other institutions in Croatia, as well as in the region. The University of Rijeka is not quite ready to fully implement e-learning successfully but most of the conditions are there. Now it is necessary to work on the identified difficulties and

put more effort into assuring all the conditions are met because UNIRI is almost there. However, there already are bright examples at the University, such as EFRI and FMTU that have been accredited and are successfully conducting studies exclusively in the online environment. Considering UNIRI, EFRI is emerging as a leader of change and an initiator of digital progress (e-learning). In light of the post-pandemic educational trends and consequences, it is possible to state that the higher education system has faced serious challenges and adapted to new modes of operation that will for sure stay at least partially integrated into the education system of the future. To conclude, the authors do not consider successful e-learning as wishful thinking, but rather a very possible reality in the near future, both at UNIRI and worldwide.

ACKNOWLEDGMENT

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