

Covid-19 as an Accelerator for Digital Transformation at Riga Stradins University

Aigars Zupa¹, Uldis Donins¹, Zigmunds Zitmanis¹

¹ Riga Stradins University, Latvia

Aigars.Zupa@rsu.lv, Uldis.Donins@rsu.lv, Zigmunds.Zitmanis@rsu.lv

Abstract

Riga Stradins University (RSU) is located at the capital of Latvia in Riga. RSU has 9400 students from that 25% are international students from 50 countries. RSU provide studies in the areas of Health care, social sciences and humanities. In February 2020, in response to the spread of Covid-19, the RSU management decided to switch to distance learning, blended learning was provided only to medical students who were in practice and those whose classes required access to simulation equipment. RSU had limited previous experience in the implementation of distance learning programs, but almost all technical resources were available to make such studies possible.

RSU has had an e-learning environment based on Moodle for about 10 years. Microsoft Teams, Zoom and Panopto were available and RSU had access to several online training material repositories (Ambos, Dynamed, ClinicalKey, etc.). The management decided to make all the preparatory work to ensure an adequate transition to distance learning. Monitoring of the E-learning environment was started, checking whether the amount of digital materials is sufficient for the provision of studies. Regular teacher training was organized in the preparation of interactive e-learning materials, working with Zoom, Microsoft Teams, and Panopto. For remote examination Respondus monitor solution was chosen. In order to provide an opportunity for applicants to apply for studies at RSU, the RSU admission system was supplemented by giving the opportunity to sign study agreements with a secure electronic signature.

1 Transformation in numbers

After the decision of RSU in middle of 2020 Spring semester to switch to distance learning, it was important not only to provide teachers and students with all the necessary tools and knowledge for the implementation of distance learning, but also to create solutions to monitor this transition process. To

ensure the monitoring of transition processes, several business intelligence (BI) solutions were developed for processing data available in the systems.

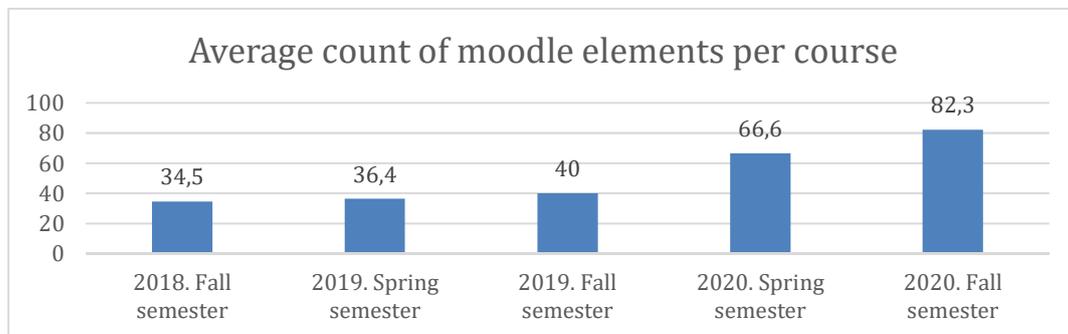


Figure 1: Average count of moodle elements per course

When switching from on-site to distance learning, great attention had to be paid to the study materials placed in the E-learning environment. Data analysis was performed evaluating of how many elements E-learning courses contain. One element can be attached document, inserted Zoom link or a quiz. The average number of elements of e-learning courses increased rapidly, indicating that teachers started to pay much more attention to the content of e-learning environment courses. In addition, students were surveyed to find out their feedback on the content of courses. As a result of the survey, departments were identified whose course content was incomplete and they were informed about the need of necessary improvements.

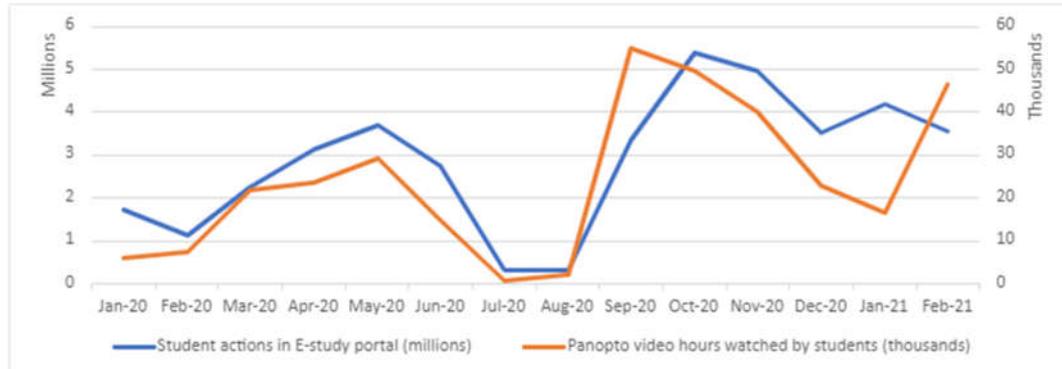


Figure 2: Student activities

In addition, student activity in the E-learning environment and Panopto was monitored. Naturally, student activity on these platforms has increased significantly. In an e-learning environment, one activity is considered to be opening a course, completing a quiz or uploading a work. In February 2020 RSU students performed a little over of 1 million activities in total, while the number of activities performed after a year has increased 3.5 times. It's the same with watching Panopto videos - in February 2020 the total number of videos watched was ~ 7000 hours, while after a year this number has increased to 46000 hours. It should be noted that as a result of active teaching activities, the number of videos published in Panopto has grown rapidly.

Not only the availability of study materials, but also the opportunity for students to participate in group work and communicate with lecturers in real time is of great importance in distance learning. For

these purposes RSU chose to use Zoom and Microsoft Teams solutions. RSU lecturers showed great interest in Zoom and Teams training and judging by usage statistics, these platforms are actively used.

If in April 2020 ~ 2000 Zoom sessions took place, then from March 1-15 in 2021 ~ 7000 Zoom sessions have already taken place.

It was also important to evaluate students' satisfaction with studies, success and participation in study processes.

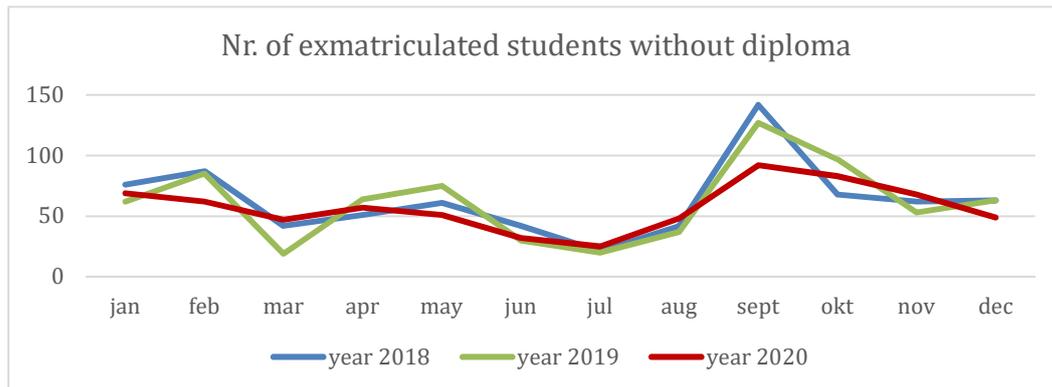


Figure 3: Number of exmtricated students without diploma per month

Initially, it was expected that students would have additional difficulties in their studies and would choose not to continue their studies or take academic leave, but in reality, it turned out to be different. Compared to previous years, the drop-out rate of students has decreased. If in 2019 an average of 90 students were deducted every month, then in 2020 this number decreased to 60. A similar situation is with students who have gone on academic leave. In 2019, on average, 63 students went on academic leave every month, in 2020 - 55.

Student success rate improved. If in the 2019/2020 academic year the average grade was 7.82 (Latvia uses a 10-point system), then in the 2020/2021 year the average grade was 8.17. The situation was similar with course surveys. 2019/2020. In the academic year, study courses were evaluated on average to 3.6 (study courses are evaluated on a scale from 0-4), then in 2020/2021. During the year, the estimate increased to 3.65.

2 Conclusions

Evaluating the current situation, it can be concluded that within the framework of Covid-19 digital transformation, the number of e-learning materials developed by RSU has rapidly increased, teachers' digital skills have improved, student satisfaction with study courses has not deteriorated, the number of students has not decreased and the number of enrolled students has even increased compared to previous study years. In general, the transformations performed can be assessed as successful.

3 Author biographies



Aigars Zupa is IT project manager at Information Systems Unit at Riga Stradins University. He has Masters degree of educational sciences from Latvia university. He has more than 10 years of experience in IT sector and 6 years of experience working as an educator in various schools and higher education institutions.

Linked-in profile: <https://www.linkedin.com/in/aigars-zupa-a1b90446/>



Uldis Donins is Head of Information Systems Unit at Riga Stradins University and trainer which holds a PhD (Dr.sc.ing.) in computer systems. Field of study is software modeling and modeling formalization. Specialties includes software designing, development, and development management; software development process improvements; various Microsoft technologies and platforms, e.g., SharePoint, Dynamics CRM, and Business Intelligence. He is a co-author of "Topological UML Modeling" book.

Linked-in profile: <https://www.linkedin.com/in/uldisdonins/>



Zigmunds Zitmanis is director of IT Department at Riga Stradins University. He has MBA degree from Riga Business School. He holds project management certifications PMP and PMI-ACP. He is IT professional with more than ten years of practical IT project and IT service management.

He has led organizing committee for EUNIS 2013 Congress in Riga. Linked-in profile: <https://www.linkedin.com/in/zigmunds-zitmanis/>