UNIVERSITY LEVEL GIMP ONLINE COURSE
- FACULTY OF TEACHER EDUCATION (ICT COURSE)

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Abstract: Two virtual communities consisting of the second-year "Information Systems" course students of The Faculty for Teacher's Education attended "Manipulating Images with GIMP" course as an integral part of their curriculum. The course was presented online and its purposes were (1) learning about possibilities of the teaching process using online resources, (2) encouraging independence at performing tasks within the practical part of the course and (3) getting students to learn about free open-source software. Upon completion of the course, a survey was conducted for the purpose of analysing – in both qualitative and quantitative senses- familiarity with e-education terms and the level of student satisfaction with this way of knowledge acquisition and assessment.

I. INTRODUCTION

It is becoming more common for the university-level teaching processes to use e-learning or e-education techniques – ranging from simple presentations and use of Internet to retrieve information to combined teaching processes by means of implementing teaching units and online courses into F2F teaching process. Contemporary web-based courses take advantage of Internet capabilities to support and improve the effective approaches of traditional education, while at the same time they offer great innovative possibilities. [1]

The Internet can facilitate not only establishment of a variety of communities within a particular university but as well for linking students of various universities into one virtual learning community. For years, The Faculty of Teacher's Education, the University of Zagreb – Čakovec subsidiary (FTEUZ-ČK in further text) has implemented an open-source free CMS system – Moodle – as an aid in educating the students. Such e-learning systems are sometimes also called learning management system (LMS), course management system (CMS), learning content management system (LCMS), managed learning environment (MLE), learning support system (LSS) or learning platform (LP); it is education via computer-mediated communication (CMC) or online education. [2]

LMS Moodle was chosen because of its supreme features (moreover, it is free), which can be testified with the fact that, not so long ago, CARNet successfully replaced its commercial CMS WebCT system with Moodle. The latter is widely used in a variety of courses within Teacher's Education Studies and Preschool Education Studies, especially in the ICT courses cluster, which is the result of a stronger bias on the part of the teachers. Some other examples of commercial systems are Blackboard, WebCT and Top-Class while some other examples of free systems are Moodle, Ilias and Claroline.

The students accomplished six tasks within the course and had a final test. By means of the formal testing, the knowledge that the students acquired in the course was assessed. The purpose of the course was to make the students acquainted with the new ways of teaching, whereas getting to know GIMP was of secondary importance. The course put a stress on the communication made through forums, e-mail and chat, which eventually encouraged the students to attend some other courses as well.

II. ONLINE COURSE IN UNIVERSITY-LEVEL F2F TEACHING PROCESS

Nowadays, there are attractive online courses in the market that provide for acquisition of knowledge and certification. CARNet offers a free use of its online courses for its members and provides the technical support so that the teachers and/or tutors are able to implement appropriate online courses in their teaching process. The findings show that in order for on-line course resources (such as discussion forums) to be used (as compared to implemented) successfully, the critical factors that need to be considered are: human factors pertaining to the instructors, the instructors' and students' technical competency, the instructors' and students' mindset (about learning), the level of collaboration intrinsic in the course, and the level of perceived IT infrastructure and technical support. [7] In teaching-learning processes, a teacher's role is not only information transfer, he/she is also an advisor or a guide. [3] Researchers have found that the following areas are important for student satisfaction with online instruction: interaction among students, quality and timely interaction between student and lecturer, consistent course design across courses, technical support availability, and flexibility of online courses compared to face-to-face.[6]

From a teacher's perspective, a blended e-learning approach requires new pedagogic skills in order that the learner gains the most from the presented course. Assuming such an environment results in students having more control over their learning, increases social competencies, improves student morale and overall satisfaction, enhances information skills acquisition and student achievement, respects differences in learning style and pace, and fosters communication and closeness among students and tutors. [4]

Previous positive experiences with implementing CARNet's (Edupoint's) online courses have provided for implementation and widened the scope of possibilities of versatile implementation of online courses. Thus the "Manipulating Images with GIMP" online course virtually connected the students of FTEUZ-Čakovec.

The students in the virtual surroundings were led by a teacher-tutor. The communication within the course comprised of a forum, e-mail and chat, whereas the knowledge assessment comprised of 6 practical tasks and 1 written test. The performance at the practical tasks was assessed by the teacher. For all tasks, the students had to score at least 50% per a task. The students had to score the same percentage per task in the written testing as well in order to complete the course successfully.

III. RESEARCH METHOD

For the purpose of obtaining relevant data, a sample consisted of 20 first-year students of Teacher's Education Studies – ICT course. Three of them did not provide any feedback.

The research was conducted by survey method. The main purpose of the research was to obtain quantitative data but the opinions of the course attendants were surveyed as well. The sample included both sexes, 6 males and 11 females. The students were allowed to give up at any stage of surveying, to respond to the survey or not and it can therefore be supposed that the obtained data is relevant.

The aim of the survey was getting feedback through answers to the following questions:
- Do you think that you have mastered GIMP software through the online course?
- Where did you encounter the term "e-education" for the first time?
- Which term do you mostly associate with "e-education"?

After the relevant data was obtained, a quantitative analysis of the answers to the survey questions was performed whereas a qualitative analysis was performed based on the collected comments via which the students expressed – in a few sentences – their subjective opinion on the course itself, the course moderator. They as well stated the advantages and disadvantages they experienced, and, finally, they expressed their possible satisfaction/dissatisfaction.

Any analysis deeper than the afore mentioned one is hard to be done because – for the purpose of objectivity of their answers- the students cannot be surveyed before they have sit for the exam. Namely, the students could think that their answers could influence the results of the exam and this is what the authors of the paper did not want to risk. Regarding that the group of the students that attended the course was a small one, the authors could not prepare a voluminous questionnaire because a voluminous survey would have demotivated some students as to answering the survey questions. It is well known that there is a direct reversely proportional relation between the volume of a questionnaire and the willingness of the surveyed to fill it.

Unfortunately, a course of GIMP that would be presented in the traditional way has not been envisaged within either regular teaching process or the respective curriculum. This is why a comparison between GIMP and the traditional way of teaching is not possible. The authors hope that - by means of an optional subject that is to be offered in the future - an appropriate course of GIMP could be presented with the same content and in the traditional way and thus the comparison would be made possible.

The research results are shown in the section that follows.

IV. RESEARCH RESULTS

Assessment of the level of familiarity with e-education realm, obtaining the level of (dis)satisfaction of students as to the course and getting the feedback was to be used as a guidance for future.

Answers to the question " Do you think that you mastered GIMP software through the online course?", are presented in Picture 1. This leads to the conclusion that the attendants are satisfied with the knowledge they acquired via the online course, 36% of the surveyed marked the acquired knowledge as good whereas 43 % of them marked it as very good.
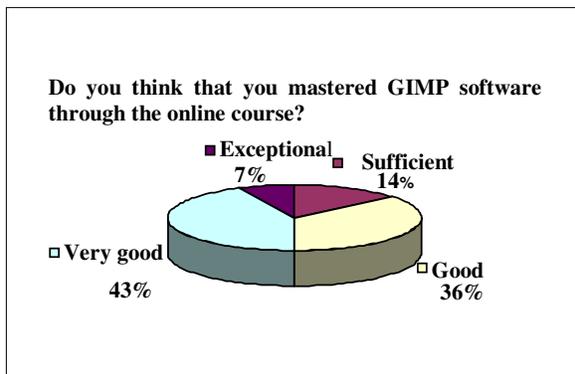
Picture 1. Acquiring knowledge via the online course

Picture 2. Where the surveyed encountered the term "e-education"

The expressed satisfaction was confirmed once again in their comments that claimed that the course was a useful experience that can be applied in a practical sense in the real life. Logically, they as well expressed the wish of taking part in other online courses.

Besides the accessibility of CARNet's online courses for everyone, the most important feature of the courses for the majority of the surveyed was the fact that the courses were free. The students' comments point out the simplicity as well …"as to the course itself, it was an easy one due to the well prepared instructions given by the moderator and I faced no bigger problem except my impatience when fulfilling the tasks."

It was promising to see that the students are not sceptical as to knowledge acquisition via online courses, on the contrary, they have expressed their openness to this kind of education, which can as well be seen from the following comment: "GIMP was a highly educative, useful and interesting experience. I hope there will be more courses of the kind, especially ones related to photographs (images) or audio materials".

As to disadvantages, they pointed out the reliability of the equipment; lack of equipment was mentioned to a lower extent, but also that joining an online course requires certain knowledge and skills from the attendant. They recognized an additional disadvantage in "the possibility of cheating at solving online tasks; namely, the teacher cannot know (although he/she can allegedly check) whether a picture is rendered with GIMP or with some other software. A picture could have been easily borrowed from colleagues and the reports written approximately. There are other ways of cheating, however, cheating at remote learning cannot be ruled out. There should be a detailed analysis of an outcome sent by a student. In other words, "… we could have cheated and it should not be allowed in a course".

The majority of the surveyed encountered the term "e-education" at the university or in the school whereas only few of them encountered the term via the Internet or some other media, as it can be seen in the Picture 2.
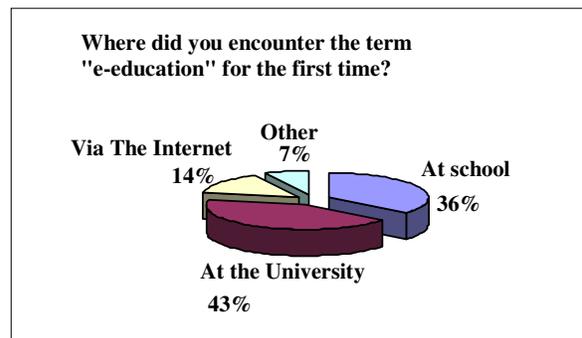
The comments provided by the course attendants showed the awareness of the importance of the use of new technologies and the possibilities of enhanced learning by means of the new technologies. "What I liked the most was the fact that we could educate ourselves wherever we wanted, whenever we wanted and in any way we wanted. We signed up for the course sitting in our rooms and did the tasks we were given. I like this way of learning and I give a big support to those who are going to use it".

They concluded that this kind of learning has become more and more commonplace but, regardless of all advantages, they preferred… "a verbal teaching process and the communication with a teacher along with the physical attendance of a person that explained something".

The surveyed stressed the importance of the instructions on how to work that were clear and precisely formulated. "You literally could not have made an error at performing a task unless there had been an error on our part. Thus, we could not have related an error to the instructions. What I liked as well were clearly set deadlines and a warning if we had been late as to handling in our work, i.e. when there were only few days left."

There is a comment confirming that F2F way of learning teaching has not left its role and position: …"I would just like to say eventually that, if I were to choose, I would choose the normal way of learning in a classroom instead of online learning. The truth is that it was a new experience, but the face-to-face communication is more effective than the Internet communication. In some cases, online learning is useful and has been increasingly implemented. 'Fifty-fifty' would be the best solution. Both the standard and online learning."

The advantages whereas follows: " An online classroom is opened 24 hours a day, we can decide on our own as to the time we commence solving the tasks (within the set deadline); e-learning provides a quality participation in the teaching process for the students, even when a distance or some similar circumstances tend to contest the quality."
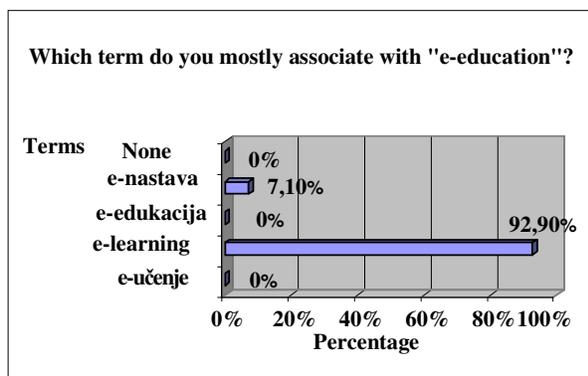
Picture 3. Vocabulary category

The easy-to-notice problem of the domination of English in the ICT terminology can be seen in Picture 3.

It clearly shows that the attendants mostly encountered the term e-learning (as much as 92.9 % of them), whereas e-teaching process was of a very low associative value to them (7.10 % of them). E-knowledge acquisition had almost no associativeness. However, the course attendants attach various meanings to the term e-learning in their comments.

The following meanings can be assumed:

- E-teaching process,
- Remote learning,
- Online education and
- Online course.

The students responses varied as to whether e-education is to fully replace the traditional teaching process, 71.4% of them thought that e-education is to partly replace the traditional teaching process whereas 28.6 % of them thought it will not.
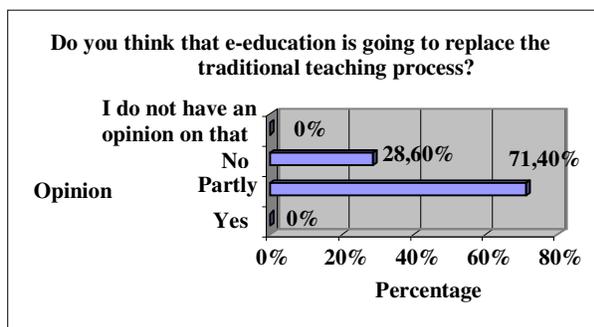
Picture 4. Opinion of the students as to e-education replacing the traditional teaching process

Clearly indicated advantage of the online learning was seen in the fact that …"we can work at home, but the works should be handled in before the deadline." However,

the attendants as well considered this way of learning not to be the best one… "because the instructions are simply 'served' to us."

Although the majority of the surveyed stated the course to have been the first online course experience, they "do not want to neglect the standard face to face way of learning because it is in fact the best way of communication to which we are accustomed the most. Although both techniques have their advantages and disadvantages, I think that the best way of teaching is the combined one that uses both the standard 'face to face' way of learning and remote learning."

An attendant who had already attended other courses and had had negative experiences about them said the following: "I have already attended one online course and I have to admit that I have not been satisfied a lot because I do not like this kind of learning… However, I did like this very course because I was able to find everything in the computer, everything was clearly marked, drawn and written, which helped me…" This was an important feedback for the course moderator. The comment clearly showed to which extent a quality preparation of a course and an experienced moderator were important.

V. CONCLUSION

The possibilities of implementing and accepting the combined teaching process – the process in which traditional teaching is supplemented with materials presented via online courses - both by teachers and students have been increasing. There is a lot of potential as resources are not limited in terms of access (space and time), there is a possibility of linking various learning communities. In order to improve satisfaction of students with an online course, efforts need to be invested in getting students to know about new ways of learning and teaching and in acquisition of communicative skills. This is where the crucial educational dimension is shouldered by teacher/moderator and the students' motivation for such ways of learning and – in the last consequence- ways of being taught.

The survey results lead to the following conclusions:

- If a course is prepared in a quality manner and if there is a quality communication among attendants and the moderator, the course results in an attendant's subjective feeling of its course theme knowledge being enhanced significantly (Picture 1).
- The formal education system is still the main source of the new facts on the online education (Picture 2).
- The formal education system is to increase its efforts significantly in order to think out and standardize the ICT terminology in the official language of the country in which the online teaching process is performed (Picture 3).
- While uncertain (due to a lack of the representative statistic sample) there is an impression that the students' population (Picture 4) has no illusion that e-education is to become the basic way of educating in the future, but they see it as an implement to the traditional F2F teaching process.

Comparison with the results of classical teaching is not possible, because corresponding classical education does

not exist. The course of this kind is not prescribed by curriculum. Author's intention was primarily to introduce students with the education of this kind. Students attending the course is set in two ways: as a condition for admission to examinations and as a way to earn points as a good starting point for an examination.

The value of the on-line course of GIMP can be seen through the following: Frequently, there is no a formal possibility of enhancing the teaching process (it is not envisaged either in the curriculum or the timetable schemes). However, the willing teachers can always implement some added value in the teaching process. It is in turn elegantly performed by means of on-line courses. It is true that the courses bring some additional burden for both students and teachers but their value is significant: They offer the opportunity of discovering new horizons for students, introduce them to the way of transferring knowledge into new shapes and, at the same time, it does not interfere with the teaching process. Regarding the fact that attending the course is not obligatory, the attendance is motivating in the sense of gathering points required for taking the exam.

In the end, the satisfaction with the GIMP online course is expressed in an attendant's comment: …"In the beginning, when I learned that we would have to attend a CARNet's online course, I was slightly sceptical and insecure… I cannot even deny the fear of whether I was going to complete the course successfully or not. However, I have to admit that I was pleasantly surprised with the course we attended, "Manipulating Images with GIMP", it was an indeed pleasant and useful socializing and learning experience."

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