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Implementation of IT technologies at the Comrat State University

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About CSU

Comrat State University is a new higher educational institution establishment in Moldova and was founded in 1991. It is a dynamically developing university aimed at training and providing the southern region of Moldova with highly qualified specialists. Comrat State University have about 1800 students and consist of 4 Faculties, 17 Departments and 7 Centres that give training on 34 specialties.

Summary

CSU started the implementation of IT technologies in education in 2009 with usage of Learning Management Systems **MOODLE** and computer testing software like **ADSOFT TESTER** and **MyTEST**. During that period some experiments were carried out in order to find an appropriate model for e-learning education on specific subjects in our university. The essential goal is connected with the application of open source software and its adaptation to our vision of an effective educational process. We use several beneficial ICT tools in teaching and learning like Wiki systems, Learning Management Systems, Web-conferencing and Desktop sharing tools, etc.

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Introduction

The idea of the active implementation of e-learning was adopted in Comrat State University in 2009. More and more teachers from different departments and faculties of the University consider E-learning as a means of achieving a new model of teaching and learning. Since then they continually explore different ICT tools that affect various aspects of teaching. We implement various ICT tools in our practical activity seeking a suitable model for the realization of E-learning, consistent with the specifics of curriculum subjects.

The main goal of the current work is to summarize the results of our studies and present some specific ICT tools used in learning process. The work distinguishes some of the main advantages of ICT tools, which have become a reason for our choice. It sets out some performance after their application in our teaching practice.

Benefits of E-Learning

E-learning is a learning process based on the usage of computer and communication technologies. There is constantly development of electronic tools that can be used to realize each stage of training – preparation of the learning materials, their delivery to the learners, the processes of learners' evaluation and knowledge control. Each of these tools allows the implementation of a specific model of E-learning with different form and degree of learners' activity.

The presentation of **multimedia information** (text, graphics, audio and video materials) is one of the important advantages of E-learning. Based on modern information technologies multimedia elements can be used in creating electronic learning content.

THE PROCESS OF INTRODUCING THE GOOD PRACTICE

The Dept. of IT, Mathematics and Physics already has 4 year experience on implementation IT technologies and e-learning systems in the education in framework of several TEMPUS Projects (e.g. TEMPUS CRUNT). This Department also have closely cooperation with private and public sectors too. The good example of this collaboration is the collaboration with MIKROTIK and AITEC SRL companies in framework of NETWORK ACADEMY. As result of this collaboration the 12 teaching and engineering staff from Department of IT, Mathematics and Physics and the Centre of Information Technologies of the Comrat State University has participated in the free trainings focused on network technologies and obtained international certificates of MTCNA, MTCRE and MIKROTIK Academy trainers.

THE PROCESS OF INTRODUCING THE GOOD PRACTICE

Moreover, both companies Mikrotik and AITEC provided necessary network equipment (routers, switchers, software, wi-fi access points) free of charge for creation network laboratory at the Comrat State University. During this collaboration the Teaching Staff of the Comrat State University and staff of the MIKROTIK and AITEC Companies elaborated the new modern curriculum and education materials (books, guides, laboratory tasks, etc.) on the network technologies which is successful implemented in the educational process at the CSU. It is important to mention that authority of the Comrat State University is fully supported all initiatives and collaboration between CSU and private and pubic sector, and in their view it is important for future development of CSU as modern education institution, as well as for students – this allow to student to obtain necessary knowledge's and skills according current labour market needs.

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RESOURCES REQUIRED AND USED

The financial and human resources are important issues for successful implementation of Information and communication technologies at the university. The necessary financial resources are needed for:

- equipment and software purchase, its installation and setup;
- learning materials purchase (multimedia encyclopaedia, e-books, etc);
- licensed trainings for teachers and staff of IT centre;
- support materials and spare parts (cables, cartridges, lamps for multimedia projectors , etc.) purchase.
- Respective competitive salary and compensation for IT and teaching staff.

The required high qualified human recourse can be involved from IT industry or be trained during education of Staff by certified IT partners and Companies. Private Public Partnership are very welcome.

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Conclusion

E-learning is an integral part of training. It can be realized in various forms using different technologies. E-learning is a limitless source for: the expansion of interactive activities used by teachers; innovating teaching and learning; stimulating students' activity and improving the communication between teachers and learners. E-learning can be used as a complement to the traditional training. All these aspects lead to increased efficiency of training.

The usage of free software stimulates the interest to information technologies and motivates teachers and students to improve. The integration of various ICT tools into one system is a very effective approach that covers all phases of the learning process.

Recommendations

Institutional level. They should support online teacher learning communities at school and/or school network levels.

Enable pedagogical innovation with digital competence. Turn digital competence into a key priority in teacher training. Teacher training in all fields should include advanced digital competence, not concentrating only on IT user skills of teachers.

Recommendations

Support digital competence in organisational strategies

Embed digital competence in all curricula and institutional strategies. Digital competence should be included in educational curricula across all levels and disciplines, building digital skills already from primary education through learning to use digital tools confidently, critically and creatively.

Recommendations

Acknowledge and benefit from technological innovations

More research is needed for finding evidence on how technology can enhance learning and which challenges it may raise for the skills of teachers and learners. Teachers should be encouraged to document and share the practices they have developed, as well as challenges and impacts they have encountered. Incentives for the objective assessment of enabling and disabling factors for using digital tools for learning should be implemented. This would provide institutions and teachers with proven practical models, helping teachers to learn in particular how to use innovatively but critically IT for different kinds of subjects and the added-value of IT as a teaching tool.

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Thank you!