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LEARNING MANAGEMENT SYSTEM AT SCHOOLS – ARE THEY REALLY NEEDED THERE?

In this article, several findings of various studies are shown on the use of LMS in schools. Meanwhile, Learning Management Systems (LMS) have been introduced in a number of schools around the world. A LMS is a software application for delivery of learning content and management of learning processes for students. LMS support students, teachers and administrators resulting in personalized, productive learning experiences. Students and teachers are able to communicate easily with each other through LMS. Because of LMS implementations in some schools, it is important to recognize reactions of students and teachers as LMS users.

Keywords: Learning Management Systems, LMS.

I. Introduction

Generally, a LMS can be described as a web offer or online portal with real-time access. It is used for delivering, tracking and managing training and education. Students and teachers are able to communicate easily with each other through LMS. It allows discussions and communication between teachers and students and saves time for teaching in classrooms. Nowadays, almost every school has Internet access. Therefore, the majority of students and teachers can use the Internet. Since almost every family owns a computer, tablet or a network-compatible mobile phone, they can also use information and communication technology independently on schools, e.g. at home. With the use of LMS, students and teachers can collaborate via the Internet, present their opinions and thoughts in a better way and get help easily. Students learn to deal with Internet and LMS and become more independent by working with these means.

II. Internet usage at school

Several studies have been performed on use of digital technology connected with internet in schools.

The results of these studies are different, but they all showed that the use of this technology is useful and can be introduced. Therefore, they play a major role in the perspective of schools, teachers and students. A study on the use of the Internet for teaching in Rockbridge County, Lexington, and Buena Vista public school showed that 25 % of teachers are using the Internet for teaching daily, 42 % of teachers are using computers for teaching, 66 % are using the Internet since more than 15 years for 1–3 hours per day [23].

A well-managed information flow in a school can lead to the improvement of educational standards and ensure improvement of teaching equality. With the introduction of the new technology, computers and the Internet at school, learning processes have become much easier, faster and cheaper. 79 % of teachers surveyed believe that students can learn faster when they are working in the classroom with computer and Internet [24].

Another study in 2008 in Germany evaluated the use of computers and the Internet for educational purposes. The results from the analysis of the answers found, a computer is available for 90 % of the teachers, 84 % can use internet and Email at school and at home. Merely 9 % can only access at home to a computer, and 15 % say they use the Internet for private purposes only.

In general, the studies showed that teachers and students have the possibility for using computers and the Internet for educational purposes.

III. Factors influencing the use of the Internet

Digital technologies (computer) connected to the Internet are useful tools for support of learning. The Internet is user friendly and it is available for educational purposes. There are several factors influencing the behaviour of students and teachers to use the Internet and computers for learning.

Factors such as education level, age, gender, education experience, experience with computers for education and attitudes towards computers can influence the use of computers, Internet and the new technologies [4; 26; 28; 29]. The teachers attitude for technology affects their adoption and integration of computers and Internet into the

classroom [1]. Anxiety, lack of confidence in their own abilities and fear of failure are the reasons for the avoidance of computers and the Internet in education [25].

The presence of computers and the Internet in schools affects the use of this technology in school education. Many schools do not have enough computers or computer rooms and there are no persons, who are interested in software for teaching purposes.

In average in a school, there were 25 computers for 1,000 students [31]. A study in Germany in 2010 showed, that only in one of ten schools each student has access to a computer in a classroom. Only 33 % of students are using computers at least once a week [11]. The study also showed that about 30 % of the students did not use computers at all in classrooms. The study also showed that only 4 % of parents have evaluated the use of computers in schools as excellent. These bad results demonstrate the poor equipment of schools with computers and the Internet.

IV. Student performance on the Internet

Students use the Internet when they need it in order to collect more information, especially for a better understanding of lectures and ideas for tasks. There are contradicting views from researchers on whether the internet and computers are good media for students in schools and in classrooms, as some agree, while some disagree with this idea.

Today, almost every school has access to the Internet. This may be an advantage or disadvantage. It depends on the use of this technology, for example for students, using computers in search for learning information instead of playing only games. A recent study shows that students in Germany have been victims of bullying in the Internet [20].

Other studies show that computers and the Internet help and support more and better than parents can. Around 66 % of students regularly use the Internet as a learning tool, while only 50 % of students receive support from their parents [18]. The study also showed that girls take longer than boys do to learn [18]. Students can improve their writing skills when the Internet with computer is properly integrated [9]. This research showed that computers and the Internet can prove to be good and harmful to students, depending on how they use them for help in school. However unfortunately, the temptation is great that they can be distracted by other attractions on the web.

V. The learning management system (LMS)

Operation of LMS

Most daily school activities are dependent on computers and the Internet in present days. Therefore, it is important to have a learning system for students and teachers that is suitable for education, a system, in which the students and teachers will find important learning content quickly and easily. There have to be also central locations where is all information about the school courses. Such a system is called LMS. LMS are currently used by many schools in the world. There are various types of these systems. However, we will focus here only on LMS.

LMS are evaluated differently between researchers, depending on how many selected and incorporated features and tools are used. Here we present a background of LMS, including its definition, characteristics, tools, advantages and applications.

A LMS is a software application for delivery of learning content and management of learning processes for students [6; 30; 17]. A LMS consists of educational institutions; human interaction, learning content and assessment support and encourage students and teachers at school [16]. It is a useful online system in which teachers represent teaching materials, teachers and students can easily communicate with each other [19].

Teachers and students can perform thus variety of learning events within LMS [22], usable also as tools for communication and interaction between students and teachers. LMS help teachers to provide their learning materials. They offer features such as administrative tasks, testing, planning and discussion. Therefore, teachers and students can enter in the learning process a lot of effort and still save time.

The typical LMS supports the teachers in preparation and delivery of content, management, attendance monitoring and performance assessment of students. Through LMS, learners can present learning materials, discussion forums, audio and video conferencing and thus improve the objective of LMS und the performance of the students and teachers.

Question about adoption of LMS in schools

The use of information technology in education has become an urgent necessity. With the adoption of a new system, it is necessary to know and to understand how these systems are being used and introduced. There are different views of pupils and teachers about the various functions of LMS. Therefore, the experience is important in the implementation of such a system.

Interaction between teachers and students in an e-learning system is an important factor that can contribute to effective online instruction [7]. One of the problems with the use of LMS is the lack of effective interaction between teachers and students [7]. For example, many teachers are limited to uploading teaching materials on the website. Interactive features such as chat, discussion forum, e-mails were never used [7].

In a survey, the most common used LMS are Moodle, Blackboard / WebCT and Sakay [3]. Moodle reports that it is used in 215 countries [13]. This LMS has many interactive features that are not yet implemented and carried out by teachers and students in action [8]. LMS also support the presentation of multimedia material that can be used to improve teaching. Teachers must have experience in working with the computer before using a LMS.

Some other studies found that many schools have a few computers to use ICT and LMS [14]. The EU Commission stated that 63% of nine-year pupils visit schools, which lack suitable computer equipment or fast Internet connections [12]. Therefore, we can influence some of the factors that improve the use of LMS by students. However, few studies determine the relationship between the use of LMS in schools and the staff factors, school factors, environmental factors, and educational factors.

Acceptance of LMS in schools

The use of ICT in classrooms has many advantages for students. These advantages can it get out depending on how the teacher and the students use the ICT in the classroom. Most teachers of the K-12 in the UK understand that the use of ICT in teaching plays an important role in the development of teaching materials [21].

In a study, the results showed that most teachers perceiving ICT as very useful stated that teaching and learning became easier. The perceived ease of use has a significant impact on the perceived usefulness [10]. Thus, the perceived ease of use and perceived usefulness have a positive impact on the intention of use.

With respect to the usefulness of the courses on LMS, 70 % of the students said that they can learn the course topics in a simple way. 27 % of students said that their level of understanding it was increased [2]. The learners accepting the combination of classrooms and e-learning have positive attitudes [15]. Therefore, an e-learning system can be successful. The key element for the successful implementation of e-learning is still the human factor [15]. The performance of students increased after the implementation of a LMS [2].

In a study on the effectiveness of K-12 online learning, the U.S. Department of Education noted that students results in case of online learning are better than in case face-to-face [27]. The online learning system leads students to greater learning progress in mathematics than learning without online support [5].

Students and teachers have very well received the online learning system.

Students evaluated online learning systems to be particularly advantageous. When editing the homework, they give them immediate feedback to each task step and provide detailed explanations.

VI. Conclusion

In the modern 21st century world, where information is spread quickly via the Internet, LMS are essential tools for students and teachers. Through LMS, students can find information about their courses, task and messages easily; teachers can upload and update their course requirements, tasks, and messages for the students. However for students and teachers, problems can arise in using completely new system of LMS. For an efficient usage of LMS, schools have to provide adequate training and counseling for students and teachers. IT support and IT problems have to be solved in schools. A lot of students and teachers have used LMS or similar systems for learning processes. Many learners have positive statements about LMS. This proves the necessary implementation of LMS in all schools.

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СИСТЕМИ УПРАВЛІННЯ НАВЧАННЯМ В ШКОЛАХ – ЧИ ПОТРІБНІ ВОНИ ТАМ?

У цій статті наведено кілька результатів різних досліджень використання LMS у школах. Системи управління навчанням (LMS) було введено в окремих школах по всьому світу. LMS – це програмний додаток для доставки навчальних матеріалів та управління процесами навчання для студентів. LMS персоналізовано підтримує студентів, викладачів та адміністраторів, в результаті чого підвищується продуктивність навчання. Студенти та викладачі можуть легко спілкуватися один з одним через LMS. Завдяки впровадженню LMS у деяких школах, можливо визначити реакції студентів і викладачів як користувачів LMS.

Ключові слова: системи управління навчанням, LMS.