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E-LEARNING AS A TOOL SUPPORTING THE PROCESSES OF KNOWLEDGE MANAGEMENT IN EDUCATION

E-LEARNING JAKO NARZĘDZIE WSPIERAJĄCE PROCESY ZARZĄDZANIA WIEDZĄ W EDUKACJI

Introduction

The on-going globalization, assisted with modern electronic technologies, has generated a new way of communicating between people and institutions, not only within the most immediate surroundings, but also in the farthest reaches of the world. The Internet and mobile telephony play manifold communicative and informative roles e.g. in marketing, business, politics and education¹.

The Internet supports globalization, since it facilitates internationalization of production, changes the system of managing – called *outsourcing*, the principles of logistics and control, and above facilitates the contacts between customers and enterprises. Along with the development of the available services on the so-called web and their enhancement the role of the Internet is increasing at the local, regional and global level. Everyone who has an *online* access to a computer, has a possibility of unrestricted broadcasting, processing and reception of the content in the form of text, with an image and sound attached or without it.

The more and more excellent electronic devices and accessibility of media, thanks to which the communication in student – student and student – teacher relations takes place, are not the main challenge of the e-education. In the 21st century they are very well developed and have become a universal good. The crucial issue associated with the effective organization and the course of teaching as well as on-line learning are communicative competences of the participants of the process – the teachers and the students.

¹ D. Miller, H. Horst, *The Cell Phone: An Anthropology of Communication*, Berg Publishers, Oxford 2006.

The Internet communication has eliminated the whole range of non-verbal signals, that are available while encountering another person, and direct interpersonal communication has been replaced with indirect communication.

A question should be asked then – whether the Internet and mobile technologies supporting universally accessible to young communities tools, can supplement the educational offer? With the question in their minds academic researchers, institutions of education and culture, training centres, not to mention teachers themselves are searching for solutions to increase the possibility of schools to include creative and innovative actions in the context of the education of the future. One should comment here on the abilities and needs of the teachers teaching different stages, but because of both the range and the diversity of the issues, the subject cannot be elaborated more widely in this article.

Taking into consideration that the problem is extensive, the hereby article is limited only to the description of a specific way of learning – learning on-line and focuses mainly on possibilities of creating e-learning courses on the example of the non-commercial educational Moodle platform.

1. Knowledge management in education

Knowledge management is described as a process, a system, a field of study, a new concept of management or even as an art². In literature one may find many definitions of this notion. Authors Thomas Davenport and Larry Prusak³ define knowledge management as a combination of processes enabling creation, disseminating and exploiting knowledge to achieve the objectives of an organization. They think that knowledge combines experience, values and appropriately selected information.

Knowledge is connected with immaterial resources, such as: data, information, procedures, experience and education. Knowledge is also connected with such factors as: culture, ethics, intuition, working conditions, management style⁴. Thus, knowledge is treated as a resource, which should be acquired, preserved, shared, used, spread and developed.

The outline of such an attempt is presented in the figure 1.

² M. Strojny, *Teoria i praktyka zarządzania wiedzą*, „*Ekonomika i Organizacja Przedsiębiorstwa*”, 10 (12), Szkoła Główna Handlowa, [on-line:] <http://e-sgh.pl> [dostęp: 12.10.2018].

³ T. Davenport, L. Prusak, *Working Knowledge – How Organisations Manage What They Know*, Harvard Business School Press, 1998.

⁴ J. Kisielnicki, *Dylematy rozwoju badań systemowych, czyli rozważania nad tym, czy powstała już nowa szkoła w naukach organizacji i zarządzania – szkoła zarządzania informacją i wiedzy*, [w:] *Zastosowanie badań systemowych w nauce, technice i ekonomii*, J. Kacprzyk, Z. Nahorski, D. Wagner (red.), Akademicka Oficyna Wydawnicza EXIT, Warszawa 2005, s. 65.



Figure 1. Basic areas of knowledge management

Source: Developed on the basis of: <http://www.orangehill.pl/Layout/Images/Graph/AudytWstepnyZarzadzaniaWiedza.png>.

Implementation of knowledge management in education has a few dimensions.

Firstly, it supports traditional educational processes with tools and methods based on modern IT technologies, in order to widen and adapt educational offering to the needs of the environment. Developing it comes down to systematic work within an organization aimed at generating new solutions and competences and improving the already existing ones.

Secondly, it allows creating and accumulating knowledge in the field of new technical and technological solutions, methods and ways of management, patterns, norms and social behaviour⁵. At the same time educational centres must verify the practical usefulness of the created knowledge, because if not put at the service of organizations, it becomes worthless.

An organization is based on knowledge if its structure is subordinated to and aimed at creating the value added based on effective use of knowledge⁶.

According to Grudzewski and Hejduk⁷ such organizations have the following features:

- produce products rich in knowledge, i.e. of which more than 50% of the total value is knowledge;
- employ top-class specialists, so-called knowledge workers;

⁵ D. Hendzel, *Szkola wyższa jako organizacja oparta na wiedzy*, [w:] *Uczelnia oparta na wiedzy*, T. Gołębiowski, M. Dąbrowski, B. Mierzejewska (red.), Fundacja Promocji i Akredytacji Kierunków Ekonomicznych, Warszawa 2005, s. 138.

⁶ W. Grudzewski, I. Hejduk, *Systemy zarządzania wiedzą – nowy paradygmat czy wyzwanie*, [w:] *Przedsiębiorstwo przyszłości, fikcja i rzeczywistość*, I.K. Hejduk (red.), Inst. OiZwP „Orgmasz”, Warszawa 2004.

⁷ Ibidem.

- their market value to a decisive extent is determined by the value of intellectual capital.

Taking a stance on this definition, certainly it is possible to state that educational institutions are organizations based on knowledge. Knowledge is their basic resource, thanks to which they gain a competitive advantage and help other entities get it. To meet the needs of the environment, they become more and more opened and flexible.

However one should emphasize that the effectiveness of the process of knowledge management of educational establishments largely depends on efficient communication, or rather communicative competences, i.e. the ability to send competent messages, but also the ability to receive them.

They are not deprived of flaws and will not be a panacea for all educational establishments' ills, but only a support for the process of teaching and learning.

2. Communicative competences

The term "competence" or "competences" is not consistently understood. In literature one may come across various definitions, often very different from one another. This word is of Latin origin, where *competentia* means responsibility or compliance, and *competere* – to gather, to agree, to be suitable, to compete⁸. However in *Mały słownik języka polskiego* competence is defined as "the scope of powers of attorney and terms of reference, the scope of operation of an authority or an organizational unit; the scope of one's authority"⁹.

M. Dudzikowa understands competence as an ability to something, which is dependent both on the knowledge of the abilities, skills that fall under it, as well as on the belief in the capability to use this ability¹⁰.

Further consideration considering this issue require even if short explanation of the very term "communication" which will provide a better understanding of the essence of the teacher communicative competences. Transposing this term to the language of pedagogy again we encounter a different way of understanding and defining it.

In *Mały słownik języka polskiego* there are presented four meanings of the term "communication". The most useful for our deliberations is the term according to which the "communication" means the intercommunication, transmitting thoughts and providing information¹¹. Language is the means of communication between people. "To communicate" – to make public, to transmit information, to notify about something¹².

The very term "communication" is ambiguous and differently understood and defined. Communication in the sense of intercommunication is a process during which

⁸ W. Kopaliński, *Słownik wyrazów obcych i zwrotów obcojęzycznych*, Wyd. IV, Wiedza Powszechna, Warszawa 1979.

⁹ Por. W. Doroszewski (red.), *Słownik języka polskiego z włączonym suplementem*, A-K, PAN, Wiedza Powszechna, Warszawa 1961, s. 916.

¹⁰ Por. M. Dudzikowa, *Kompetencje autokreacyjne – czy i jakie są możliwe do nabycia w toku studiów pedagogicznych*, [w:] *Ewolucja tożsamości pedagogiki*, H. Kwiatkowska (red.), Polskie Towarzystwo Pedagogiczne, Warszawa 1994, s. 205.

¹¹ W. Doroszewski, *Słownik języka polskiego...*, op. cit., s. 332.

¹² Ibidem, s. 893.

people in many different ways (verbal or non-verbal, e.g. with gestures) pass information (messages) to one another¹³. In our times the manner of initializing contacts, conducting discussions, negotiations, as well as the content of the transmitted messages and the way we receive them decides about successes or defeats, not only professional but personal as well.

T. Rachwał gives a number of features, conditions and methods which should be fulfilled so that the communication could be effective. Verbal communication “should be credible, i.e. not biased, based on competent statements and attractive for listeners”¹⁴.

In practice communicative competences fall in: active listening, keeping the appropriate proportion between saying and listening, body language, voice, words, empathy, assertiveness, making influence, public appearances and expressing oneself in writing¹⁵.

A competent in communication person is a person who can not only speak, but also knows when to speak, where and in what way it should be done.

The term communicative competence *Leksykon Pedagogiczny PWN*¹⁶ explains as “the ability of speaking in a language appropriately to the social situation and the recipient’s features”. W. Okoń¹⁷ gives a similar definition of this expression thinking, that the term “communicative competence” is identical to a linguistic competence and means a language competence understood as being able to communicate interpersonally. W. Strykowski¹⁸ on the other hand claims that communicative competences are: “the knowledge on the subject of the communicating process, as well as the ability of the effective broadcasting and receiving statements”.

Having read the terms and definitions it can be explicitly stated that communicative competences belong to the most important competences of a teacher. They largely decide on the effectiveness of teachers’ action, about success or defeat in teaching. The lower the stage of the education the bigger roles they play. After all it is hard to imagine a teacher who is not able to communicate with students, and even worse if he or she does not consciously want to do it, does not aspire to it.

According to G. Koć-Seniuch¹⁹ it is possible to include the communicative competences of a teacher in the following saying: “Be bright, honest, efficient and to the point”. It is certainly a true saying but it does not fully reveal the essence of the communicative competences of the contemporary teacher. Because, as it was signalled above, they include not only the ability of sending right statements, but also the ability

¹³ T. Rachwał, *Podstawy przedsiębiorczości. Słownik dla liceum ogólnokształcącego, liceum profilowanego i technikum*, Wydawnictwo Nowa Era, Warszawa 2004, s. 88.

¹⁴ Ibidem, s. 88.

¹⁵ F. Żurkowski, *Podstawy przedsiębiorczości. Podręcznik dla liceum ogólnokształcącego, liceum profilowanego i technikum. Zakres podstawowy*, MAC Edukacja S.A., Kielce 2002, s. 39.

¹⁶ B. Milerski, B. Śliwerski (red.), *Pedagogika. Leksykon PWN*, Warszawa 2000.

¹⁷ W. Okoń, *Nowy Słownik Pedagogiczny*, Wydawnictwo Akademickie „Żak”, Warszawa 1998, s. 185.

¹⁸ W. Strykowski, J. Strykowska, J. Pielachowski, *Kompetencje nauczyciela szkoły współczesnej*, Wydawnictwo „eMPI2”, Poznań 2003, s. 23.

¹⁹ G. Koć-Seniuch, *Kompetencja komunikacyjna nauczyciela w kontekście oczekiwań pracodawców*, [w:] *Kompetencje współczesnego nauczyciela*, K. Żegnałek (red.), Wyższa Szkoła Pedagogiczna TWP, Warszawa 2008, s. 199.

of receiving statements, especially from students. The most important are here such qualities of a teacher as willingness to listen to students, empathize with their situation, their needs and expectations (emphatic competences), and to understand them etc.

Theory and practice point at two models of education and communication (transmittal and interactive) being applied also in e-learning. The teaching methods which use the information and communication technologies are the basis of e-education (e-learning) and facilitate the improvement of teaching, among others thanks to the asynchronous communication and the cooperation of teachers and students. They also facilitate and increase access to materials and educational services²⁰.

This broad spectrum of training possibilities causes a quick growth of e-learning methods which are fully adaptable to individual needs of participants of a course, politics of an organization, infrastructure of a given institution, as well as skills of a teacher or a coach.

3. Short characteristics of e-learning

Distance learning with the use of the Internet and other electronic tools to deliver multimedia contents has unusually and intensively developed in the recent years²¹. The fundamental causes behind the great interest in such a form of teaching are most of all: easier access to global computer networks - the Internet, the development of the multimedia and communication technologies and contemporary computer technologies, and first of all the demand for knowledge. It is manifested in the development of e-learning, because e-learning is nothing else than teaching from a distance with the use of computer techniques and the Internet²².

Defining this notion one most often uses the following terms: distance learning, web based training, computer based training, on-line learning, e-learning²³. From the above distance learning is the broadest term whose components are e-learning and web based training, computer based training, as well as correspondence courses. Analysing the relations between these terms, it is possible to say that e-learning is teaching supported by new technologies (Computer Based Training), in which case the Internet provides the area where the knowledge is distributed (Based Training Web). Therefore e-learning allows completing a course, a training, or even studies without the need for physical presence in a lecture hall. Juxtaposing the e-learning with the traditional training techniques is the most frequent and the most effective combination. Then we talk about Blended learning²⁴, that is combined trainings, also called hybrid, mixed or complementary, making use of a few teaching methods. Most often it is a form of

²⁰ M. Sysło, *E-learning w szkole*. <http://www.e-mentor.edu.pl/artukul/index/numer/28/id/611> (dodano 9.09.2011 r.)

²¹ R. Tadeusiewicz, *Model społeczeństwa informacyjnego*, AGH, Kraków 1999.

²² M. Hyla, *Przewodnik po e-learningu*, Oficyna Ekonomiczna, Kraków, 2005.

²³ Multimedia w edukacji i szkolnictwie wyższym: [http://www.inib.uj.edu.pl/~krakowska/Multimedia/\(Microsoft%20PowerPoint%20-%20%20ksztza_263cenie%20multimedialne%20%5BTylko%20do%20odczytu%5D\).pdf](http://www.inib.uj.edu.pl/~krakowska/Multimedia/(Microsoft%20PowerPoint%20-%20%20ksztza_263cenie%20multimedialne%20%5BTylko%20do%20odczytu%5D).pdf) (dostęp: 12.09.2018).

²⁴ M. Rzewuski, *Distance Learning – nauczanie na odległość*: http://www.republika.pl/mareczekrz/pcq_4_distanca_learn.htm. (dostęp: 08.08.2018).

supporting the traditional process of teaching. Blended learning trainings combine the advantages of traditional and e-learning trainings.

Internet communication is the basic element of functioning of e-learning. Fundamentally two types of the Internet communication can be distinguished, in which the base of the division are the synchronicity and the interactivity of the information exchange. We can talk about synchronous and asynchronous communication then²⁵.

Synchronous communication – these are the direct forms of the communication in the real time, where all the information and communication processes occur by means of the computer network. They are most often held through videoconferences (with the use of Internet cameras) and chat (acting similarly to the electronic mail, but the exchange of the messages takes place in the real time). Also Internet messengers combining the possibilities of many Internet tools, that is also different forms of the communication are gaining in popularity. With their help we can have conversations, look through web pages, send files or short text messages to mobile phones. Thus synchronous communication tools are above all: chat, videoconference and messengers, (table 1) that is programs that enable direct communication in the real time with other Internet users e.g.: chit-chat, oxygen, ICQ, Skype.

Table 1. Examples of messengers and their functions

	Messenger	WhatsApp	Telegram	Skype	Signal
voice calls	iOS, Android, www	iOS, Android,	–	iOS, Android, Windows, WWW, desktop	iOS, Android,
voice calls	iOS, Android, www	–	–	iOS, Android, Windows, WWW, desktop	–
group conversations	available	available	available	available	available
encryption	optional (soon!)	Only on supported devices	optional	–	by default

Source: Developed on the basis of :http://www.benchmark.pl/testy_i_recenzje/najlepsze-dar-mowe-komunikatory-internetowe.html (dostęp: 20.11.2017).

Asynchronous communication – is adding content by users to the network at any time. Everyone can read it or involve in a discussion. At present it is the most frequent method of communication used in e-learning trainings.

Asynchronous communication tools include: discussion forums, e-mail, web pages. It is the asynchronous communication that dominates e-learning platforms which fall into three categories, in terms of their potential²⁶:

²⁵ „Finn.pl”: <http://www.finn.pl/xml/programy/lms/opis> (dostęp: 08.08.2018).

²⁶ <http://moodle.org> (dostęp: 08.08.2018).

- LMS (Learning Management System) – the computer system which creates the learning environment suitable for teaching via the Internet and uses the software for managing e-courses;
- CMS (Content Systems Management) – system that allows us to prepare a course;
- LCMS (Learning Content Management System) combines the features of the higher described LMS and CMS platforms.

Among the basic functions of the LMS class software systems are:

- managing and administering teaching activity in e-learning;
- monitoring the teaching - learning process;
- distribution of e-learning courses through the Internet;
- organising the remote communication and supporting interpersonal interaction;
- integration of the teaching content;
- assessing, supporting and managing abilities and competences of the participants of virtual education.

Out of numerous possibilities offered by the LCMS software class systems the following functions deserve the special attention:

- managing educational materials;
- aiding design and teaching content sharing;
- managing a remote teaching processes based on e-learning courses;
- supporting individual and group work of e-learning courses participants;
- providing the communication between teachers, students and administrators of the system;
- evaluation of the results of the teaching measurement.

At present there are commercial and non-commercial e-learning packages available on the market. Amongst the non-commercial packages Moodle is undoubtedly the most popular. It is used to create websites and online courses.

3.1. Non-commercial Moodle package for creating e-learning courses

Moodle stands for Modular Object – Oriented Dynamic Learning Environment²⁷. Moodle was created as an Open Source software and is available for free under the GNU GPL licence. It means that admittedly it is copyrighted, but at the same time it allows copying, management or modification, provided that it is available to other people with the attached and unchanged licence. It was created in order to support the today's teaching and the process of learning through removing all barriers e.g. concerning time or distance which could be an obstacle to interpersonal communication. Moodle can be of help both in traditional teaching, as well as exclusively used for on-line learning. Each computer cooperating with different databases, but first of all with MySQL (Relational Database Management System) and supporting PHP (a programming language, PHP: Hypertext Preprocessor) can effectively cooperate

²⁷ M. Wawrzynkiewicz, *E-learning – nowe środowisko dydaktyczne*. Miesięcznik elektroniczny „Gazeta it” nr 9 (39) 2003 <http://www.gazeta-it.pl/edukacja/git22/112.html>.

with Moodle. This package does not only assists or enables teaching, but also allows for creating personal websites, building personal courses, playing and any alterations for the purposes of a user.

Moodle platform is usually put by the user on the Apache server (an opened HTTP server which can be used by different operating systems such as the Unix or BSD), however it does not happen this way on account of the limitation of the platform, because it can work together with any servers supporting the PHP scripting language. For the proper functioning of the platform also a server of the database such as PostgreSQL (free database) is essential. Moodle came into existence to work under the Linux (the Apache server, MySQL and Php). It was written in the PHP scripting language. Almost all data is stored in databases. The recommended database for Moodle is MySQL. Usually these settings are the default settings.

3.2. Educational opportunities of Moodle

The application of Moodle can be very diversified and dependent on a specific user. Everyone using this software has great possibilities of creating an appropriate work environment. Moodle has a number of tools which can make learning very effective, such as: discussion forums, chat rooms, blogs, quizzes, resources, questionnaire, tasks. It lets generate extended multiple-choice tests, assess the performed works and add additional marking scales. Anyone with teacher or administrator privileges is able to make changes to the appearance, mode of action, selection of specific tools offered by Moodle, management of the contents of the service, and set which part of the service is visible for a logged in user, and which for the “guest” status user. This package can function as a platform devoted to education, where the way of acquiring the knowledge will be held at the teacher-student level. It can also be a place, where everyone learns from everyone.

A user proposes a subject and all interested parties share their knowledge and views on the specific subject through e.g. discussion forums, exchange of files, chat. The very users decide on the content of the service, its appearance, application, the use of specific tools, subject matter, resource management and sharing it on the web. All these objectives have been achieved while simultaneously safety, simplicity and the huge flexibility is maintained.

3.3. Course components

Course is a basic functional element of every educational platform. Having logged in an authorised teacher, an administrator or an author of a course is allowed to create a course. The process of creating a course is being carried out in edit mode and consists in formatting an environment of a course and attaching components (modules), that is actions aimed at sharing the course content to participants. Components of a course are available in many ways, in it e.g.: from the pop up menu. The components are:

- Voting - thanks to this component an administrator is able to get to know the opinion of the users on a defined subject. A question is asked and ten possible responses are defined to be chosen from. Results of a voting can be published on the site restricted to the course, or can be visible only to the person teaching the course. Participants remain anonymous while voting. They can choose only one of the defined responses.
- Questionnaire - can reveal interests of participants and helps the ones responsible for the course to adapt it to their needs, and assess the usefulness of on-line teaching. It makes it easier to discover new issues for the purposes of a future course. While creating the questionnaire an administrator has two types to choose from: COLLES and ATTLS²⁸.
- Chat - it is a place for having a discussion. Everyone who is logged in can use it. Conversations can take place on everyone to everyone or one to one basis.. The huge advantage of the chat is having a conversation at the same time what offers a possibility of getting a practically immediate answer to an asked question, or by writing the text down one can have a casual conversation with other participants. Everyone using the chat has at their disposal elements making the conversation pleasant. They are: emoticons, links, a state of mind, buzzing, the HTML - if the participant knows elements of the HTML language they can except for a text publish images, links to files or website, and also freely format the text itself.
- Blog - this module is available only to participants and administrators. Its role is to get to know the opinion of participants on the subject set by the administrator.
- Forum - it is the most important module because thanks to it discussions and exchange of views on a specific subject are possible. The conversation takes place in text mode and is available to all users on the forum at the same time. The teacher who adds a new forum to a course has the following possibilities to choose from: short discussion on a specific subject, general forum available to everyone, one issue for one user. It is possible to add a few forums for completely different issues to each course.
- Lesson - this module is an essential tool for communicating the knowledge and checking the systematic progress of the participant. Every page of a lesson ends in a test on the presented material in the form of one question with a few responses. Depending on whether a participant correctly answered the questions they advance in the lesson or must revise the part of the lesson which is problematic.
- Quiz - thanks to this component an administrator can create multiple choice or true or false tests. Tests have questions grouped according to the category and are kept in the database. It allows multiple use later on. Repeating tests is acceptable. After each attempt a user is shown the results, the comment, the correct answers, the hint or advice from the teacher. This module contains a lot

²⁸ „Gazeta Uniwersytecka” miesięcznik Uniwersytetu Śląskiego w Katowicach; marzec 2006 nr 6 (136): <http://gu.us.edu.pl/index.php?op=artykul&rok=2006 &miesiac=3&id=3614&type=no RM>.

of options which make the test user-friendly and allow to set the start and end dates. It is an excellent tool for constructive teaching through the trial and error approach. It enables fast remembering of the correct answers through the return to the already made mistakes, exposure to the correct answers and another test. Each time a participant has a test they should make less and less mistakes.

- Glossary - this component enables an administrator to create a glossary which contains definitions and references to the terms found in the entire service. Exporting terms from one glossary to another is also possible. Searching for the specific term takes place in the search engine according to diverse criteria.
- Workshops - this component enables to create a course with tasks for participants to solve, which are assessed according to the criterion: preliminary evaluation, final evaluation. Moreover there are other options for assessing and presenting the participants' results, as well as defining the length of their works. The time for completing the task is set in advance by the administrator of the course. Workshops are meant to present the knowledge and almost immediately assess the students' progress so they could go to the next stage of the course.
- Wiki - thanks to the built in editor it helps to build a fully functional set of notions and terms for the purposes of the service.
- Task - allows to determine the contents of a task to be done by participants in a course and establish the maximum grade for completing it.

3.4. Course resources

Resources, are the data which delivers the content of the course. It may be some ready files transmitted to the server, which runs Moodle. Also any website, as well as any file on the Internet can constitute a resource. Adding a new resource is possible in edit mode after choosing one of the options from the pop up menu:

- Create a text page - this option lets us create a text page with the use of the built in editor, in which the title of the page, the summary and contents are given. Equally one may paste the previously copied text into the text editor. Moodle automatically formats a text to correspond to the style used in Moodle. Additionally all website addresses from a text are converted to direct links to the sites. It is the same in case of the titles of the modules or service components mentioned in a text. They are also converted to links to these elements within the service.
- Create a HTML page - it is possible to create a complete HTML page which is automatically saved to Moodle database. There are no restrictions, as for content and structure of a page. It can contain JavaScript, graphics, multimedia files, links to other sites. The administrator is not limited, as for its structure, provided that it is made in the HTML language.
- Link a file or a web page - thanks to this option it is possible to add to different course activities direct links to any page or file on the Internet, or within the course. Multimedia files are opened with built in players, e.g.: mp3 files are opened with the streaming audio player. Moodle contains also video and flash players.

3.5. Platform course communication

Communication between teachers and participants of a course takes place in synchronous and asynchronous ways, considering the limited access to the Internet of some participants. The platform of the course offers the following network tools: forum, chat and *online-check* and electronic mail.

The forum as the asynchronous way of the communication - does not require simultaneous interaction between users. It is used mainly for asking questions concerning the discussed material and for substantive discussions. For the purposes of every online phase it is possible to create a separate forum. In order to provide transparency of a discussion separate threads are created for all brought up subjects and for each lesson.

Because of the synchronous character of chat communication (participants must be online at the same time) this tool is used during the course mainly to consult a teacher.

Thanks to the online-check function users entering the learning environment know who is logged in and can send them short messages. This facilitates contact with other users or the teacher and arranging further e.g. chat conversations.

Summary

The above presented possibilities of creating e-learning courses on Moodle Platform set out a new direction for the development of the education. The technological progress which has been taking place in this field in the recent years and the growing need for life-long learning cause that we will more and more often reach for this form of education.

If an educational institution is to implement such a tool, one should act cautiously and prudently (as it is in the case of any other tools) in order not to lose the specific character of the institution.

The specificity of the indirect communication makes the process of e-learning course communication differ from traditional classes. Each message expressed in the virtual reality, irrespective of whether coming from a teacher or a student, must be more explicit and more concise than a message of the same meaning expressed in a traditional classroom.

Computer aided knowledge management is necessary for an organization, also for an educational one. But the selection of IT methods seems to be rather a coincidence than deliberate action and to change this situation, one should conduct a research on effectiveness of IT methods applied in knowledge management.

Summary

Developments in information technologies in the field of knowledge management are becoming more and more significant in the modern society. On the other hand an ability to send and receive messages effectively i.e. communicative competences are the basis for the Internet intercommunication. The hereby study brings up a problem of effective communication on the web, as well as describes a specific way of teaching - learning on-line.

The goal of the study is to present the concept of e-learning (e-learning course) as a tool supporting the process of knowledge management in education.

Keywords: e-learning, educational Moodle platform, e-learning course, communicative competences, knowledge management.

Streszczenie

We współczesnym społeczeństwie coraz większego znaczenia nabiera rozwój technologii informatycznych w zarządzaniu wiedzą. Natomiast podstawą porozumiewania się w sieci za pośrednictwem Internetu staje się umiejętność efektywnego nadawania i odbierania komunikatów, czyli kompetencje komunikacyjne. Niniejsze opracowanie porusza problem skutecznego porozumiewania się w sieci, a także opisuje specyfikę przebiegu procesu nauczania – uczenia się on-line.

Celem opracowania jest przedstawienie koncepcji e-learningu (kursu e-learningowego) jako narzędzia wspomagającego proces zarządzania wiedzą w edukacji.

Słowa kluczowe: e-learning, platforma edukacyjna – Moodle, kurs e-learningowy, kompetencje komunikacyjne, zarządzanie wiedzą.

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