PROJECT DIGITAL EDCATION IN SLOVAKIA

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Abstract: The article deals with actual homochronous digital of education in Slovakia. It discusses process of digitalization so far and reveals particular phases of project. The article retains the main parts of project as purpose of project, its usage in practice and the asset for recent education and teachers.

Key words: project digital of education, the digital educational object, teacher,pupil

PROJEKT DIGITÁLNE VZDELÁVANIE NA SLOVENSKU

Resumé: Článok sa zaoberá aktuálne prebiehajúcim projektom Modernizácia vzdelávacieho procesu na Slovensku. Pojednáva o doterajšom priebehu modernizácie a odhaľuje jednotlivé etapy projektu. Článok zachytáva hlavné zložky projektu ako účel projektu, jeho praktickú využiteľnosť a prínos pre súčasné vzdelávanie

Kľúčové slová: projekt digitálne vzdelávanie, digitálny vzdelávací objekt, učiteľ, žiak

1 Introduction

You deserve better holiday, we will give you a special prize for your knowledges, join the project today, even these tempting slogans have caught our attention when we opened website www.digitálnevzdelávanie.sk. We are talking about national project The Modern Education – The Digital Education for Educational Subjects. We must mention that this project is connected with project Millenium (4), that aim was the change of traditional (memorazing) education to modern creative education and with project Infoage (5), that inovated hardware infrastructure of slovak schools. The entire process of digitization of education in Slovakia is reflects on the figure 1.
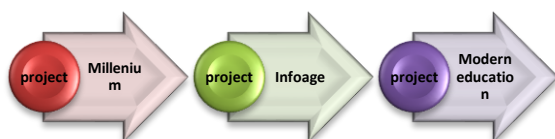

Figure 1: Process of digitization Education in Slovakia

2 Project project digital of education

The implementor of the project is The Institute of information and prognosis of educational system, that provides printed and electronic content to support education, running of central applications for the educational field via Data centrum of primary, secondary, high schools and universities and also activities concerned with popularisation of educational system with the view to field of study in technical and scientifical scope. The project will last for three years and minimum of 543 560 pupils and 52 100 teachers from 2 657 slovak primary, secondary and high school except Bratislava region will be involved. The aim of the project is development of digital educational objects that all teachers can join. About 800 teachers will cooperate on development of minimum 12 800 digital educational objects. Teachers who will be involved in creation of digital educational objects will be priced by 10 € per hour. Primary they will develope digital educational materials on the topics of State educational programme that are not sufficiently done in printed or electronic educational background. All ideas of digital educational objects will be judged by professional committee because of consonancy with State educational programme. The part of national project will be byuing of 543 560 licences for mimimum 30 000 digital objects and mimimum 30 kinds of notebooks for 11 educational subjects

(according to ISCED dividing) that are defined in national project. The first digital educational objects prepared by teachers can be applied in real teaching process in september 2013. National project will be cofinancig by EU through European social fund. The amount of non-recurring financial contribution is 26 980 236,00 €. The management and administrative support are run by professionals and 45 employees that work full time, 2 employees that work part-time and

1 employee that works quarter time. The part of the team of national project are also professionals from State pedagogical institute, National institute of certified measuring of education and State institute of professional education that are part of professional committee. The part of national project is also operating programme Education that priority is modern education of sciental society. With its content and value it fullfills the demands that are required by informative society. The operating programme leads to education of modern juvenils that is able by its flexibility and competetiveness be of use in informative age. The main device of development of informative and sciental society is modernizing of content of informative education and inovation of informative knowledges of pupils, teachers and increase of the level of slovak primary, secondary and high school system. The main reason of modernizing is competetiveness of Slovakia with leader countries of EU and wholelife inovation of knowledges of people.

3 The Digital Educational Object

The Digital Educational Object (DEO) is digital selfsufficietn and repetetive object with clear educational purpose that consists of didactic valuable content. Its aim is to support didactic activities. The next atribute of DEO is the element of coherency it means the ability of its arrangement into wider context. All DEO are uniqly identified because of it are placed in database with theid description in the form of metadata. The description contains:
•   educational aim of DEO,
•   educational qualification (list of skills that pupil must know before displaying of DEO),
•   topic (classification of file of DEO according to State educational programme),
•   interactivity (interactive model of DEO).
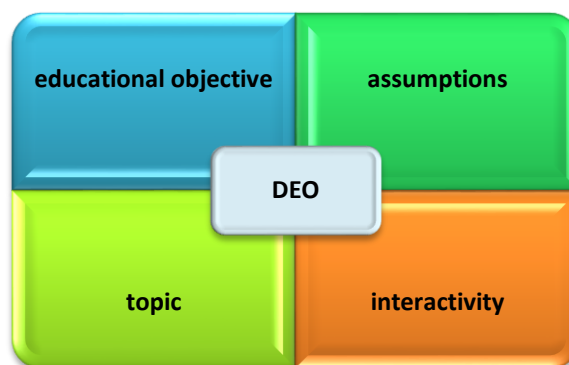Descriptions of DEO are reflected on the figure 2.

Figure 2: Analyze of digital education object.

4 The development of Digital educational object

The content of DEO accrues from real, practical experiences of teachers who work at real slovak schools. The aim is to transform practicly proved methods and schemes that are common to pupils and have positive effects into digital and graphical qualitative form. In this form they will be available to all schools, teachers and pupils.

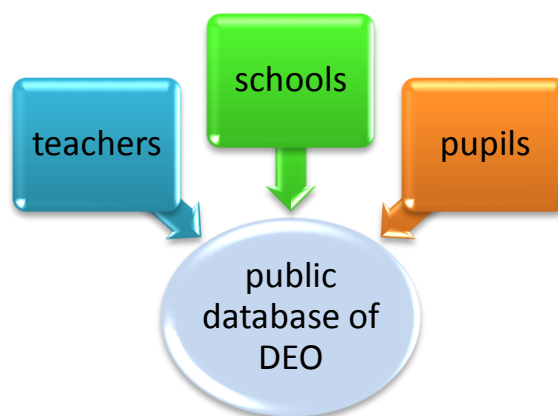Components of public database of DEO are reflected on the figure 3.

Figure 3: Public database of DEO.

5 The methodology of the development of Digital Educational Object

State educational programme contents many qualitative non-digitalized topics. The ambitios teachers have the opportunity to cooperate on their digital form by processing the subject of choosed topic. The subjects are judged by professional committee that will choose only the best ones. The implementator of the project Institute of information and prognosis of educational system will consequently make a contract with teachers as authors of the best

themes and they will as employees construct the final script of DEO in cooperation with proffesionals. From these backgrounds graphics and animators will create DEO by software tools. Each DEO created within this scheme will be protected by copyright.

6 The database of Digital of Educational Object

Complete database of DEO is placed in data centre of Ministry of education od Slovakia. Database of DEO is available to teachers and pupils via mentioned portal or through the project The Planet of knowledges if the user has an access to data centre. All offered themes for individual approved levels and subjects are connected with State educational programme. Project does not content themes that are digitalized or themes that are part of different project related to digitazing of teaching content.

7 The structure and quality of Digital Educational Object

The develpment of DEO includes using of minimum 7 000 videos, minimum 3 000 interactive objects, the large amount of photos and ilustrations, digital units will content non-rewrite text. Each developed DEO is subject to multistep classification. Then it will be discussed wheter it is in consonacne with State educational programme that means if it fulfils atributes of educational object. Criterias of classification of DEO are identical with classification of text books. Metadata DEO are compatible with international reference e-learing model SCORM. SCORM (Shareable Content Object Reference Model) is collection of standards and specification for web oriented education. It defines development, delivery and communication between content on the side of client and host system – web server where is implemented system LMS (1). Compatibility of datas is guaranteed by standards of digital libraries IEEE. Digital library IEEE/IET Electronic Library is the most comprehensive fulltext collection of articles from magazines and conference text books from the scope of informative and communicative technologies, electrotechnique and electronics in the world. It serves articles from more than 160 mostquoted titles of scientific and professional magazines of collegium IEEE (Institute of Electrical and Electronics Engineers) and its

partners, more than 1 200 conference text books, more than 3 800 technic norms, more than 1 000 electronic books and 300 educational courses. IEEE contains more than 3 mil. documents. Every month about 25 000 of new documents are added. Collection is available via platform IEEE Xplore® Digital Library (2). Technic parameters of DEO fulfil international standards.

8 The Meaning of digital education overhung borders of national project

Mentioned national project will have important influence and contribution in many spheres of education. From the means of European social fund this project developes nowadays education for sciental society. One of the main contributions of national project is long term support and increase of professionality of pupils at primary, secondary and high schools in educational subjects that might markedly influence their future career.

Quality support that is provided by employees of national project to teachers leads to their cooperation to analyse the topics that are primary for permanent development of digital content. By increasing of practical skills of teachers in development of local content of DEO will lead to interaction not only between State educational programme and teaching synopses but with vision of teachers about lesson structure, too.

Targeted preparation of teachers to use of didactic tools – digitalized materials and updated videos allows their nonviolent and natural implementation to teaching process. Practical results and experiences resulting from integration of digital education can make a pressure to long term qualitative increase and level of provided digital content even after the end of project. By the influence of baldness of project can by integrated to next projects and activities participating on development and modernisation of educational process in Slovakia.

9 The first experiences of teachers

We have the opportunity to watch several teachers during registration to project and during their first steps concerned with development of DEO. Teachers were after successful registration asked to create and send their ideas. Larger amount of ideas was in short time classified and lots of them were approved by professional committee as suitable for production. Interesting was that some ideas were not classified.

We believe that it is because of their difficulty and it takes more time to classify them. Teachers consider cooperation as efficient but some of them would like to have better communication with management of project for its slowness and flexible feedback. Next they would like to discuss details of inadequacies of DEO for their possible correction and later next publication or usage in this project.

10 Conclusion

The vision of work „at home" for some teachers will be very interesting opportunity how to make money during summer holiday. It can be interesting to see the use of digital materials at schools and we think that in the future the change in perception of digital education, too. We believe that the results of project will create important chapter in digital education at our schools.

11 Resources

[1]http://www.kirp.chtf.stuba.sk/moodle/pluginfile.php/33326/mod_resource/content/15/moodle22se32.html [cit. 2012-05-07].
[2]http://nispez.cvtisr.sk/userfiles/file/Aktivita%201.1/manualy_EIZ/IEEE_final.pdf [cit. 2012-07-07].
[3]http://www.digitalnevzdelavanie.sk/ [cit. 2012-07-09].
[4]http://www.noveskolstvo.sk/upload/pdf/MILENIUM.pdf [cit. 2012-07-11].
[5]http://www.infovek.sk/ [cit. 2012-07-11].

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