Information Competence and Evolution of E-learning Text with the Close Test

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Abstract

The aim of this contribution is to lead the reader into problems of information competency and e-learning. In electronic education students use information competences, that is way we tried to explicate problems with distance education and formation of e-learning texts. This contribution also informs about the results of evaluation of the quality of prepared e-learning educational text fot the subject Engineering production for secondary schools for the 1st class of superstructure study in the field 6476 4 technical-economical worker.

The research was implemented via Close text made by the students of secondary vocational schools with the engineering approach SOŠA Trnava, SOŠ Senec and with not engineering approach SOŠE Trnava. The research showed that prepared e-learning educational text was evaluated by students as adequately difficult.

Introduction

Nowadays is characterised by constant growing of scietific discoveries which cause the informatic explosion. One of the most basic tasks of these days and educational systems is the preparation of young man for the life in his informatic society. The man´s abilities which enable to find out, localizate necessary information, process and evaluate them and use them effectively are the part of key competences.

The boom of information raises bigger and bigger contradiction between the capacity of human memory to absorb fast growing information which change quickly and get older. The knowing of work with information and communicative technologies belongs to necessary equipment of modern human and also to key competecies which are connected with information are called information competencies.

1. Information competence

According to the recommendation of the Europan parlament and council about key competences for long-living education the competency was defined as: information competency is reliable and critical using of the iformation company technics at work, in leisure time and for comunication. It is based on the basic skills in information-communicative technologies: using of computers for gaining, judging, putting, creation, presentation and exchange of information and for the communication and taking place in cooperating nets by ways of internet. In the report of commision for information literacy (the part ALA – American Library Association) the information competency was defined: „People educated in information literacy learned how to learn.They know how to learn, because they know how the knowleddge is arranged, how it is possible to look up information and use so that the others could learn from them. These people are prepared for the lifelong education because they always can find information necessary for the particular decision or solving particular task.“ (Dombrovska, Landova, Tichá, 2004) In connection with information competencies acts to fore terms information literacy and computer literacy. The set of the abilities which involves information literacy:

- to recognize when the information is necessary

- to locate various sources (book, computer etc.)
- to know how cricitally evaluate these information (there usefulness, benefits, truth, reliability, actuality)
- to use the gained information for solving problems,
- to understand and respect economical, law, social and cultural problems connected with using information
- to mediate effectivelly information to the others in various forms (by words, writings, graphs) in both the right connection and by ways of various technologies as well (including information and communication)

The set of the abilities which involve computer literacy:

- to know, understand and explain the basic terms from the field of information technologies (software, hardware, kinds of computers, main parts of personal computer etc.)
- to use the personal computers (PC) and work with the sets of data (to switch on, restart and switch off PC, choose and work with the screen icons, search needed programme PC, delete useless data, make copies, print needed data etc.)
- to work with the text editor PC ,
- to create with charts graphs, figure data (f.e. in the programme Excel)
- to create and work with database PC,
- to create presentations on PC (f.e. in the progamme Power point),
- to gain information and communicate by ways of PC (to work with internet, create www pages, manage electronic post).

2. E-learning and materials creating

The speed of changes in everyday life and information technologies bring us also the possibilities in the form of distant education – e-learning. We can understand e-learning as one of the education ways, the gainig of knowledge, abilities and information by the way of information-communicative technologies.

In the case of distant education the student meets his teacher more rarely and works more with the educational text. So the educational text must be prepared very well to substitute the teacher. The student works only with the text. The text used for this way of teaching must be divided and the important parts must be highlighted.

It is necessery to follow these principles when creating materials for e-learning:

- „the text should be clear and transparent; what is the question of choosing curriculum, style and expressions, but on the other hand it is the affair of chapter structure and typhographical pressentation
- the curriculum should be presented in the text first of all clearly, briefly, transparently
- the content of curriculum should be limited on the basic theoretical knowledge
- the text should be written with aim to attach maximum understandability and“readability“ (by the help of examples, various schemas, charts, views, graphs, pictures)
- it is necessery to substitute the lack of school atmosphere by the dialogical character of the text and elements supporting the activity of learners (pictures, tasks, exercises, texts-autocreative). (Methodical centre Prešov, 2005)

3. The process and results of the search

We carried out the research in the secondary schools. The students of the engineering schools SOŠA Trnava, SOŠ Senec and not engineering school SOŠE Trnava created our sample. They worked with the new-created e-learning educational text on the subject Engineering production.This subject is taught by e-learning educational text in the 1st and 2nd class in the field 6476 4 technical economical worker. 91 students were involved in the research.

The processed e-learning educational text is for 1st grade. According to the basic pedagogical documents in this years is fixed grant 66 lessons for this subject. These lessons are divided into four thematical units.

The conduct of the Close test is in the basic of the research. The close test is one of the statistic methods of evaluating of the textbooks quality. In this test we investigated the readability of the text as one parameter of effectivity of curriculum. For this test we selected by chance the part from the processed e-learning educational text containg about 250 words. This text was from second thematical unit. The first 35 words were without change but the 36th word and then every 10 word, it means 46, 56, 66,.... etc. was omitted. Altogether there were 22 omitted words. Students should have fill in missing words or substitute them with synonyms. If they did not manage to fill in at least 14 words (64%), the educational text was evaluated as hard for students.
The research results are shown in the chart 1:

Tab 1 Results Close testu

summary right words	13	14	15	16	17	18	19	20	21	22	ø
SOŠA TT	0	1	2	4	5	5	5	1	1	0	18,45
SOŠ SC	0	0	1	0	2	4	8	5	4	7	19,7
SOŠE TT	4	0	0	0	6	5	4	8	7	2	18,6

From 22 words the students of SOŠA Trnava filled in in averege 18,45 words what is 84%, SOŠ Senec students 19,7 words what means 90% and SOŠE Trnava 18,6 words what means 85%. Only 4 students filled in less than 14 words.
The chart 1 shows the comparison of evaluating the right number of filled words at the particular tested schools. The axis x represents the number of students in particular schools, who filled in the number of words correctly in the Close test. The axis y represents the number of correctly filled words.

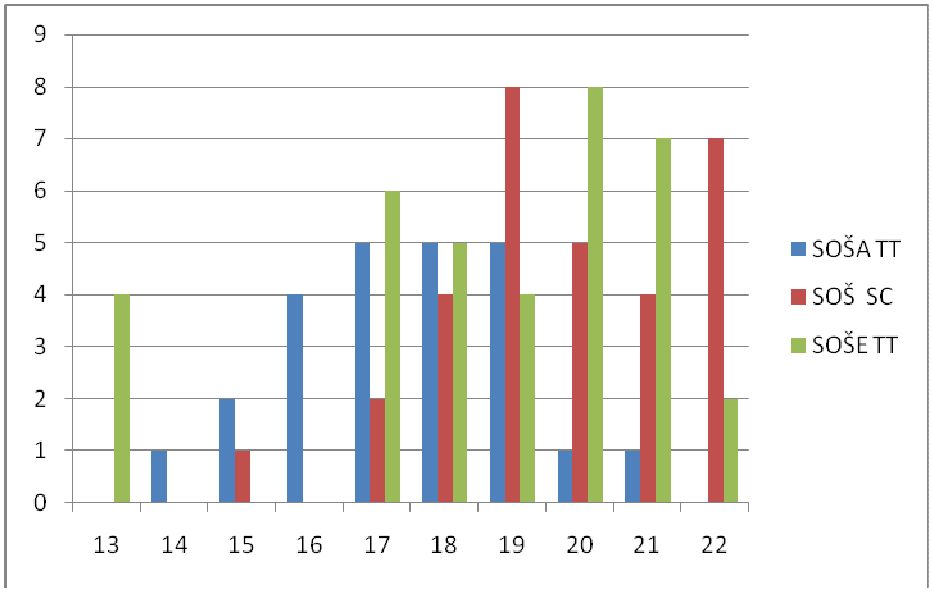

Chart 1 Graphic evaluation of the corectly filled words

Conclusion:

The research was carried out in the frame of processing e-learning educational text for 1st grade of the substructure study in the field 6476 4 technical-economical worker. The aim of search was to find out the quality of the prepared e-learning educational text by the students of secondary vocational schools of engineering field (SOŠA Trnava, SOŠ Senec) and not engineerig field (SOŠE Trnava). The results are shown in the chart 1, where are also calculated the average numbers of correct words at these schools. The quality of the text was evaluated according to the criteria given in advance (it

was needed to fill at least 14 words (64%)). The results showed that the e-learning educational text was evaluated by students as reasonable hard.

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