# Comparison of measured by results of the test system used e-learning in Konstantin Preslavsky University of Shumen through practical tasks

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**Abstract**

In the work are discussed, analysed and compared acquired ratings from students trained in Shumen University used alongside the traditional way of teaching and platform implemented at the university e-learning. Compared the results obtained by assessing the practical task with those achieved in the electronic ultimate test.

*Keywords*: practical use of systems for e-learning, analysis of the results in the evaluation of practical tasks and solve computer test

## 1 Introduction

Changes taking place in higher education in the Republic of Bulgaria to improve the quality of training required than classical methods of training and use of information and communication technologies that transform traditional learning in electronic or remote. An example is the mass introduction of training based on the implementation of projects under the grant BG051PO001-4.3.04 "Development of electronic forms of distance learning in higher education" under the Operational Programme "Human Resources", funded the European Social Fund of the European Union.

This project was also implemented in Shumen University, as a result of which was fully prepared technological, resource and methodological support of the training process. Were prepared trainers developed multimedia textbooks, electronic modules, presentations, tests to check the knowledge of different disciplines and comprehensive distance learning courses, which were used for e-learning supporting basic education students.

## 2 Basic information about the unit "word" included in different course

The module "word" is included in the various training programs for compulsory and optional subjects for student's specialists and non-specialists for students studying at the University of Shumen.

Electronic materials for the module I developed in detail it is provided with - an electronic textbook divided into chapters containing multiple slides, sample task and practical test.

Modern information technologies penetrate not only in all levels of information, but in any workplace. Appear software to automate various activities. They provide opportunities for all professionals to form the most diverse way their documents with text, tables and graphics. One of the most common applications of computer systems is the ability to process a text known as computerized text. It is actively used in small office in conducting business correspondence, in preparation of presentation documents, accounts, reports, flyers, and more. The main goal of the study module is enrichment already acquired knowledge, skills and competencies for fruitful and successful work, as well as developing specific professional word processing techniques.

The aim of the training course of this module is to help students acquire knowledge and practical skills for word. These hours are a worthwhile investment in the future competitiveness of each employee whose employment is directly or indirectly linked to the preparation and operation of representative and official documents, reports, correspondence, etc. Increase the office culture and professional competence.

## 3 Scheme for assessing knowledge of trainees in module "word"

The evaluation of the acquired and strengthened the knowledge, skills and competencies in the use of a word processor is selected to be a two-component based on practical problem solving and test [4]. To use the fullest possible advantages offered by e-learning platform Moodle e-learning materials unless provided for practical training is also provided on the basis of this platform is to carry out the assessment of knowledge acquired through the test, and its detailed analysis.

**Practical assignment:** practical task is related to the solution of various problems that students are engaged in training in the discipline. This is the way to show in practice what they have learned and you know how to apply their knowledge in practice.

Development of a practical task within no more than 2 hours, the student must base on the assigned model to be able to transform it into an electronic version, under the rules for entering information, editing, formatting and data insertion and setting specific word elements as specified in the original.

The formation of the final practical assessment is based interpretation of accumulated point score - the maximum score consists of 100 points, which is formed on the basis

of the performance of each individual condition of practical assignment. Table 1 provides a scheme used to transform the experience point scores in evaluation of the six-point system used in the Republic of Bulgaria.

TABLE 1 Scheme for the transformation of point scores in assessing the practical task

| | |
|---|---|
| from 0 to 30 | Weak 2 |
| from 31 to 50 | Average 3 |
| from 51 to 70 | Good 4 |
| from 71 to 85 | Very good 5 |
| from 86 to 100 | Excellent 6 |

**Test:** The test is designed to assess the knowledge acquired and reinforced the students on issues and specifics of working with a word processing program.

The test used to check the acquired knowledge is gated - multiple choice, including 30 questions. Each question has five possible answers. Only one of the answers is correct. Its system is set each time the output responses of a matter should be arranged randomly five answers. The questions included in this test of the student selected at random from the database containing double issues with accompanying answers.

When solving specific test question, if answered correctly will be awarded 1 point, while incorrect answer 0 points. The test scores of the student is obtained as the sum of all true answered questions from the test. Maximum test score that can get a student deciding electronic test is 30.

We e-learning in Shumen University for the courses are given any instructions to solve the test, and the transformation of accumulated test scores in the final evaluation (Table 2).

TABLE 2 Scheme for the transformation of point scores in evaluation of test

| | |
|---|---|
| from 0 to 10 | Weak 2 |
| from 11 to 17 | Average 3 |
| from 18 to 24 | Good 4 |
| from 25 to 27 | Very good 5 |
| from 28 to 30 | Excellent 6 |

The formation of final assessment on the module "word" of students is based on estimates obtained test and practical task, as an average.

The focus of this article is to compare the results of the tests using the system for e-learning in Shumen University and evaluation through practical task raises interest method of assessment of the achievement test results and comparability of results.

Assessment "Average 3" The student knows the basic theoretical concepts, but allows inaccuracies in the performance of a specific task does not use the full capabilities of the program, make mistakes and omissions in performing practical tasks.

Evaluation "Good 4" The student knows the basic theoretical concepts, know-how and enjoy the possibilities of the program, but in the performance of a specific task does not use its full capacity. Prevents serious errors in solving practical problems.

Evaluation "Very good 5" The student knows the basic theoretical concepts, able to work and exploit the opportunities in the execution of a specific task. Do not make mistakes in carrying out practical tasks.

Assessment "Excellent 6" The student knows the basic theoretical concepts, able to work with the program and use its full potential in the performance of a specific task. Rational use and purpose capabilities of existing hardware, demonstrate responsible attitude and in the performance of specific tasks. Do not make mistakes in carrying out practical tasks.

## 4 Experimental results comparable results practical task

The aim of the experiment is to answer the questions:

1. How students learn academic material - theoretically?
2. Assessment of test and real commensurate is the assessment of the practical task?

For the realization of the experiment to test and practical testing of students in the same module of relevant discipline are examined results of 13 students who have studied previous semester module.

Students were informed in advance about the way of forming their final assessment modules involved in the formation of their final assessment of the respective academic discipline. This gives reason to expect that the results of both the practical and the test examination should overlap and be close to each other.

Expectations for overlapping evaluations of both tests are justified. The achieved results are given in Table 3 and Figure 1.

TABLE 3 Results for the testing of practical job by test

| **Practical task** | | **Test result** | |
|---|---|---|---|
| Points | Rating | Points | Rating |
| 65 | **4** | 18 | **4** |
| 31 | **3** | 11 | **3** |
| 19 | **2** | 9 | **2** |
| 73 | **5** | 25 | **5** |
| 52 | **4** | 13 | **3** |
| 35 | **3** | 11 | **3** |
| 83 | **5** | 11 | **3** |
| 90 | **6** | 20 | **4** |
| 83 | **5** | 18 | **4** |
| 91 | **6** | 26 | **5** |
| 96 | **6** | 28 | **6** |
| 100 | **6** | 29 | **6** |
| 69 | **4** | 20 | **4** |

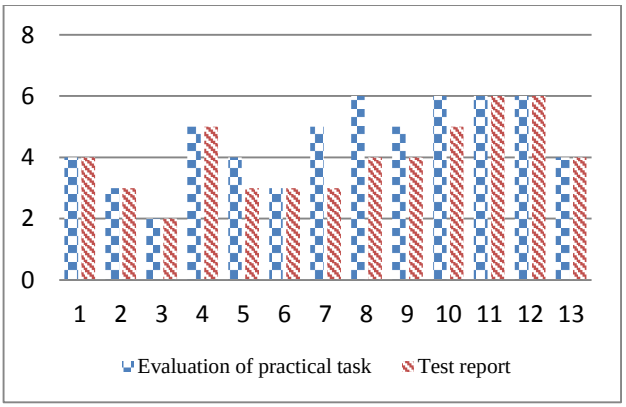


FIGURE 1 Results for the testing of practical job by test

## 6 Conclusions

Figure 1 shows that from the experiment over 60% of the students tested their results overlap completely, whether held or practical test. In the results, in which there are differences between the resulting assessment of the practical task of making this test reveals that the results achieved in the test examination are lower than those of the practical task, which:

- on the one hand say that students experiencing difficulty to present their theoretical knowledge;
- on the other hand says that test used to check the acquired and learned knowledge is reliable and gives a realistic assessment of students' knowledge.

## References

[1] Vasileva M, Uzunova–Dimitrova B 2014 Lessons learned from practice. Analysis of the results of the use of distance learning system in konstantin preslavsky university of shumen *NMU Scientific Session c. Shumen Part I* 278-85 ISSN 1314-1953

[2] Uzunova-Dimitrova B 2013 For or against test *NMU Scientific Session c. Shumen* Part I 421-7

[3] Uzunova-Dimitrova B, Vasileva M 2013 Problems test: choice of marking scheme *NMU Scientific Session c Shumen* Part I 415-20

[4] Nenkov N V, Dimitrova A S/2013 Environment ONLINE examination tests *Scientific Session 2013, Collection of scientific works part I, National Defense University "School of Artillery and Air Defense Communications", Shumen* 131-9 ISSN: 1313-7433

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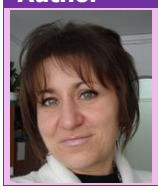

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