1) результатов промежуточного контроля в течение семестра; 2) отметки по билету экзамена. Данное положение частично устраняет возникшее вышеобозначенное противоречие, т.к. позволяет реализовать возможности УМК в обеспечении промежуточного контроля, максимально сохранив все остальные его достоинства.

Таким образом, в настоящее время при отсутствии достаточное правовой основы и методической базы организации самостоятельной работы студентов, УМК остается надежным дидактическим средством.

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PROBLEMS OF MATHEMATICAL PREPARATION OF STUDENTS AT ALEKSANDRAS STULGINSKIS UNIVERSITY

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Annotation. The attitude to teaching and learning has been clearly changing in the Lithuanian educational process during the last fifteen years: the secondary schools adopted profile teaching that was replaced by teaching and learning according to the levels, while the higher university education became accessible to anyone with enough funds to pay for studies at University regardless of evaluations of secondary education. The changing attitudes caused big damage to the training of mathematical skills. It is clearly manifested while studying higher Mathematics. The article analyzes the condition of preparation of the first-year students to study higher Mathematics at the Faculty of Economics and Management of Aleksandras Stulginskis University, its changes and studying results.

Introduction. The former Lithuanian teaching and learning system was changed radically in teaching of senior classes in 2000. The universal profile education (humanitarian, real, artistic and technological) was started from the 11^{th} form [1]. The essence of such education was to organize the studies with regard to the goals and tendencies of the pupils, to reduce the studying load and to focus on the subjects, which would be necessary for elected studies. The pupils could choose a profile, which allowed them studying the subjects allocated to certain pupil in certain level in the 11^{th}-12^{th} forms. The pupils could change the studying level by passing the test. The profile teaching did not meet the expectations [1], so in 2007 the profile

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secondary education was replaced by the schedule of the secondary education program [2]. The previously used profiles were changed to the individual training plans, i.e. each pupil prepares a plan for him(her)self [3]. Mathematics is mandatory, however its level may be chosen.

The learning of Mathematics was affected the most by the reform of higher education of the year 2009, which reduced the number of the State-funded places at higher schools, created the conditions for students to study using their own funds, and diminished the admission requirements [5]. The universities encountered the problem of qualitative teaching of Mathematics – the number of students, who are not able to study the subjects of Mathematics successfully, is increasing.

As the situation has not been improving, it was decided that all the pupils (except for the ones, who try for artistic studies) will have to take the exam of Mathematics starting with the year 2016. Besides, the admission procedure to the Lithuanian higher schools is also going to change in 2016 [4], i.e. only the persons, who have passed the final exam of Mathematics at secondary school in the appropriate level, will be able to try for the State-funded undergraduate studies. This level will be the following: at least satisfactory level of the achievements will be necessary for the humanities, while at least the fundamental level of achievements will be needed for the students, who try for social, physical, biomedical and technological studies.

Objective of the research – to assess the preparation of the first-year students of the Faculty of Economics and Management of Aleksandras Stulginskis University for the studies of Mathematics module at University.

Object of the research – mathematical preparation of the first-year students of the Faculty of Economics and Management of Aleksandras Stulginskis University.

Respondents – the first-year students of the Faculty of Economics and Management of Aleksandras Stulginskis University of the academic years 2000-2001, 2010-2011 and 2013-2014.

Research methodology – in order to assess the mathematical preparation, the test of fifteen questions created by the lecturers from the Swedish and Latvian agricultural universities was used. It was divided according to the topics: arithmetical actions, rearrangement of algebraic expressions, operations with roots, exponentiation, solution of equation/inequality, calculation of percentage, application of the Pythagorean Theorem, and linear/ logarithmic /trigonometric functions. The test lasted for 45 minutes and the students could not use calculators.

Results and their discussion. The Faculty of Economics and Management of Aleksandras Stulginskis University was chosen for the research and the students of the years 2000, 2001, 2010, 2011, 2013 and 2014 were selected in order to reflect the changes in the mathematical skills in the course of changing model of secondary education and admission requirements to the higher schools. The break points in the secondary school were in 2000 when the profile teaching was introduced, and in 2007 when the profile teaching was replaced by individual training plans of secondary education program. The break point of the higher education was the reform of higher education of the year 2009. The diagnostic test has been carried out with regard of students at Aleksandras Stulginskis University since 2000. It remains the same every year. The research results allow stating that as long as the exam of Mathematics was necessary for entrance to the University, the examinees of the

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University's diagnostic test used to manage to solve half or more than half of the exercises correctly: they used to receive 7,23 or 8,62 points on average from 15 possible. However, since 2009, when the admission conditions were made easier, the result worsened evidently: on average less than 6 points are received from 15 possible. The students, who receive small amount of points, are offered two-month courses of Mathematics at University (paid for their own account) in order to reduce or remove gaps in the mathematical skills of secondary school.

The University's lecturers have encountered a challenge to provide skills of higher Mathematics to the first-year students, whose mathematical skills are minimal, and to induce them to continue studies. According to the analysis of the results, the evaluation of Mathematics at University stays around 6, although it tends to decrease by the tenths in the recent years. The number of students who fail exam of higher Mathematics varies from 20 to 30 percent. It is important to note that such results are achieved through organization of teaching of higher Mathematics using various teaching methods, appointing consultation time for students, performing individual home works (by students), organizing re-examinations, and making the examination requirements demanding to the minimum.

Conclusions

1. When the possibilities to study at University without having taken the exam of Mathematics were created, the students with minimal mathematical skills of secondary school entered the universities.

2. The lecturers had to change the requirements for examinations and to organize re-examinations so that the students would be able to understand the course of higher Mathematics.

3. In order to achieve quality of higher education, it is necessary to make the admission requirements to the universities stricter.

4. The growing number of students, who are studying for their own account, does not increase the quality of studies.

5. The courses of Mathematics have to be organized for the students so that the gaps of mathematical skills of secondary school could be removed.

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