

Список литературы

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ADAPTIVE TESTING APPLICATION FOR CONTROL OF STUDENTS' KNOWLEDGE

Shemarov A., Grinevitch E.

Belarusian State University of Informatics and Radioelectronics, School of Business, Belarussian State University

Abstract. The paper considers the possibility of using adaptive testing for students' knowledge control. The results differentiation by the stages of passing complex tests allows to increase the assessment reliability and to develop individual recommendations for the student.

Keywords: testing, adaptive testing, results assessment, results differentiation, individual recommendations.

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THE BLENDED LEARNING AS A FACTOR OF DEVELOPMENT OF PSYCHOLOGICAL CULTURE OF FUTURE ENGINEER

Shershniova T.V.

Belarusian National Technical University

Abstract. Need of development of psychological culture of future expert is proved in article. It is pointed out inaccuracy of the decision on a psychology exception of curricula of training of engineers. The mixed training the author offers as an alternative minimization of humanitarian training of specialists, pointing to his obvious advantages.

Keywords: psychological culture, eLearning technology, Blended Learning

Recently to please reductions of terms of training in many higher education institutions of a technical profile including at the Belarusian National Technical University (BNTU), many humanitarian disciplines are excluded from curricula. Function of common cultural development of students, formations of outlook, professionally important qualities of the personality is transferred to other social institutes. Also the list of psychological disciplines which had applied character is minimized in curricula and were directed to psychological maintenance and ensuring production activity of the expert of a technical profile. It turned out that, according to developers of educational standards and curricula, future engineer needs neither engineering psychology, nor psychology of management. We returned to full ignoring of a so-called "human factor" and general "tekhokratization" again. Of course, all of us somewhat have everyday psychological knowledge, but they are very limited and concrete, insufficiently conscious, irrational, are often wrong. Concerning activity of the nature-equipment-person system its prolonged crisis state is result of the decisions made by trial and error.

To the modern expert capable to innovative activity and realization of the creative potential in the professional sphere, it is necessary to be able to understand first of all himself, to effectively perform administrative functions (most of graduates of technical colleges very quickly, sometimes – at once, become heads), to build interaction in labor collective, to make emotional and strong-willed impact on subordinates, to consider their specific features, etc. We as if forgot that the engineer is not only "technician", i.e. the expert having theoretical knowledge and practical skills in the field of the equipment and technologies but also the head. In this regard we face an obvious

contradiction: needs of the student as customer of educational services increase in obtaining reliable scientific psychological information, and the corresponding disciplines from curricula disappear. Besides, and teachers of the university owing to the increased unreasonably classroom loading, contradictory requirements from administration and supervisory authorities, lack of an opportunity to independently make decisions, constantly hanging reduction threat, and, as consequence of all that – professional burning out, cannot optimum build communication on educational occupation and out of it any more and to act for students as a role model.

Ideally the modern engineer and furthermore the expert of an engineering and pedagogical profile, is the professional having high culture, well knowing modern technology and technology, economy and the organization of production, able to use scientific methods at the solution of engineering and educational tasks, understanding professional and ethical responsibility; having ability to effective communication and able to work in team.

Psychological culture – a component of the general professional competence of future engineer. The main components of psychological culture of the personality are the psychological literacy, psychological competence and the developed reflexive abilities. The psychological literacy assumes mastering psychological knowledge and abilities in the sphere of creation of communication, the organization of behavior and also ways of psychological knowledge, psychological competence – effective use of the available knowledge in the solution of the difficulties arising in the course of real interaction. Abilities to a reflection provide a possibility of understanding of the purposes and results of the professional activity and also themselves as subject of this activity.

Existence of informative needs for psychological knowledge is confirmed also this poll of students, carried out within the department "Psychology" of BNTU of research work which is carried out by employees "Psychology and pedagogical aspects of humanitarization of educational process in technical college (on the example of the block of social and humanitarian preparation of the integrated Philosophy module of a subject matter "Fundamentals of psychology and pedagogics" and the specialized module of a subject matter "Psychology of work)").

The most easily realized exit from current situation to us introduction of Blended Learning in the system of higher education seems. Blended Learning is an educational concept within which the student studies both independently online, and internally with the teacher. Such approach gives the chance to control time, the place, speed and a way of studying of material. The Blended Learning allows to combine traditional techniques and relevant eLearning technologies [1]. In other words, the mixed training assumes combination classroom and online training, elements of control by the student of a way, time, the place and rate of training and also integration of experience of training with the teacher and on-line. Classroom training is implemented through sessions, interactive seminars, trainings, moderation, remote – through webinars, videoconferences, Skype-coaching and also through studying of the provided materials, preparation the essay, blank tasks, reports, a forum discussion, online testing, case-study, the check sheet. It should be noted that webinars, videoconferences and Skype-coaching have to be considered as options of resident instruction in the existing system of planning of an academic load of the teacher that demands correction of the existing standard documentation.

Researchers Staker H. and Horn M. from Clayton's Institute of Christensen who is engaged in innovative researches so define obligatory properties of the mixed training:

- 1) independence of the student (student ownership);
- 2) personalisation of educational process;
- 3) the training based on skill (mastery-based learning);
- 4) orientation to high achievements of each student;
- 5) giving of the importance to creation of the relations [2].

The main models of the mixed training are:

- 1) domination of resident instruction;

- 2) rotational model: the turned training, rotation of stations, laboratories, individual rotational model;
- 3) Flex Model;
- 4) Self-blend Model;
- 5) Virtually enriched model;
- 6) Domination of online training (Online Driver Model) [2].

For today the teacher has an opportunity to receive online assessment of background knowledge of the student for definition of a trajectory of training that cannot be made during the traditional introduction lecture. It is possible to avoid duplication of contents in various forms and tutorials, for example, of the content of a classroom lecture and an electronic educational and methodical complex. The Blended Learning Blended Learning allows to optimize exchange of information, fixing and control, receiving feedback about results of training, to pass from a monologue to full dialogue and to provide a monitoring priority, but not control. All this will allow to avoid easily predicted result of minimization of a social and humanitarian component when in 5-10 years the country have the mass of the labor which is more or less "brought" on performance of basic technological functions within production, but not capable to effectively define the requirements and the purposes, to adapt, be engaged in self-development and self-education, to self-actualize creatively.

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СМЕШАННОЕ ОБУЧЕНИЕ КАК ФАКТОР РАЗВИТИЯ ПСИХОЛОГИЧЕСКОЙ КУЛЬТУРЫ БУДУЩЕГО ИНЖЕНЕРА

Шершнёва Т.В.

Белорусский национальный технический университет

Аннотация. В статье обосновывается необходимость развития психологической культуры будущего специалиста. Указывается на ошибочность решения об исключении психологии из учебных планов подготовки инженеров. Смешанное обучение автор предлагает в качестве альтернативы минимизации гуманитарной подготовки специалистов, указывая на его очевидные преимущества.

Ключевые слова: психологическая культура, eLearning технология, Blended Learning.

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О НЕКОТОРЫХ ПУТЯХ ПОВЫШЕНИЯ КАЧЕСТВА МАТЕМАТИЧЕСКОЙ ПОДГОТОВКИ СТУДЕНТОВ НА КАФЕДРЕ ВЫСШЕЙ МАТЕМАТИКИ МЕЖДУНАРОДНОГО УНИВЕРСИТЕТА «МИТСО»

Шилинец В. А.

Учреждение образования Федерации профсоюзов Беларуси «Международный университет «МИТСО»

Аннотация. Повышение качества образования, подготовка профессионально компетентной личности в современном УВО невозможно без постоянного совершенствования образовательного процесса. В статье рассматриваются некоторые пути повышения качества подготовки студентов по учебным дисциплинам «Высшая математика» и «Математика». В качестве ведущего подхода к проектированию содержания математического образования выступает