

OPTIMIZATION OF EDUCATION IN THE AREA OF OHS

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Abstract: The issue of course content in the field of OHS is divided into three main groups. It deals with the subjects whose content is aimed at an area of legislation, technical orientation and finally the creation of habits and skills in the interpretation of knowledge in the particular subjects. Improvement of OHS education will be based on the results of research conducted within the framework of Ph.D. studies at KTaIT. Dominant theme in this field is the optimization of education in OHS. It will be essential to identify possible opportunities for improvement in the teaching system and its fundamental elements which are the principles, objectives, content, methods, forms and means of education. For training in OHS area and subsequently in all educational activities carried out by the security engineer must respect the specifications of this type of education. These specifications appertain to the degree of variability of individual elements of the didactic system.

Key word: work safety, education, technical subject, teaching system.

OPTIMALIZÁCIA VZDELÁVANIA V ODBORE BOZP

Resumé: Problematika obsahu výučby v odbore BOZP sa člení do troch základných skupín. Ide o predmety, ktorých obsah je zameraný do oblasti legislatívy, druhú skupinu tvoria predmety technického zamerania a tretia skupina predmetov reprezentuje obsah zameraný na vytvorenie návykov a zručností v oblasti interpretácie poznatkov v jednotlivých predmetoch. Zdokonalenie vzdelávania v oblasti BOZP sa bude opierať o výsledky výskumu realizovaného v rámci doktorantského štúdia na KTaIT. Dominantnou témou v tejto oblasti je optimalizácia vzdelávania v odbore BOZP. Podstatné bude identifikovať možnosti zlepšenia v rámci didaktickej sústavy a jej základných prvkov ktorými sú zásady, ciele, obsah, metódy, formy a prostriedky vzdelávania. Pre vzdelávanie v odbore BOZP a následne vo všetkých vzdelávacích aktivitách, ktoré realizuje bezpečnostný technik sa musia rešpektovať špecifiká tohto druhu vzdelávania. Tieto špecifiká sa týkajú miery variability jednotlivých prvkov didaktického systému.

Kľúčové slová: bezpečnosť pri práci, vzdelávanie, technické predmety, didaktický systém.

1 Introduction

There was a new chapter opened in the area of technical education at Department of Technology and Information Technologies (KTaIT) of the Faculty of Education 3 years ago that deals with the safety and health protection at work. It is not just a coincidence that this issue can be taught at the department which has been preparing qualified teachers of Technical Education for ages.

Truly, there is a close connection in vocational preparation of safety engineers, technicians and teachers of Technical Education. This contribution is a natural continuation of the authors' cooperation published for the first time in the magazine Journal of Technology and Information Education (Soták, Muchová, 2009).

2 Offering OHS studies at KTaIT of the faculty of education in Nitra

The OHS (occupational health and safety) study is built on the three pillars that represent

three fundamental groups of subjects:

- legislation subjects
- technical subjects
- subjects orientated on the creation of habits and skills in the interpretation of knowledge.

Subjects offered at KTaIT fully comply with the demands and regulations for teaching the work safety. One of the crucial advantages of our department is that it provides technical education through the academic personages of deep didactic knowledge. The didactics itself plays an important role in the preparation of future safety engineers because they will become educators among others. Their activities can be put into the out-of-school system of concurrent education. From this point of view it seems extremely suitable to open the new study field orientated on the work safety on the ground of the Faculty of Education. We want to improve the above-mentioned study field in the following directions:

The first direction is presented by a choice of

subjects, where, besides the compulsory core, we want to add such subjects that help to develop pedagogical abilities of safety engineers mainly concentrated on the improvement of interpretation abilities of our graduates.

The second direction is presented by a qualitative increment in the area of education at the highest level. First signs of the improvement are obvious thanks to some of our doctoral students that orientate their research on the issue of the safety engineer preparation. These doctoral students are closely connected with the practice what makes an important asset for all students. We also emphasize the need for permanent content innovation in all subjects in accordance with contemporary trends in science and technology. Among other things, it is necessary to respect the specification of the legislation pillar of education and to continuously observe changes in particular acts, fiats and regulations.

For the quality of education itself it is extremely important to respect the didactic principles based on the interpretation of theoretical knowledge corresponding with the contemporary practice. That is why one of the crucial criterion for the optimization in education of safety engineers at the department is the acceptance of functional education system in various organizations from the practice.

3 Scientific preparation of doctoral students – an important part of the field development

In the frame of doctoral study in the field orientated on the interactive influence of OHS and Technical Education, the most dominant issue seems to be a solution for the optimization of safety engineer education.

Research in this area will be focused on the detailed analysis of contemporary situation in educational activities. First of all, we need to identify possible improvements in the frame of didactic system and its fundamental elements which are principles, aims, content, methods, forms and means of education. In the area of OHS and subsequently in all the other educational activities executed by a safety engineer, we must respect all the specifications of this type of education. These specifications deal with the ratio of variability of particular elements of the didactic system.

The main goal of our research is to optimize particular elements of the system and to find the most suitable form of education executed by a safety engineer in the manufacturing practice. We suppose that we are able to influence the

aims, methods and means of education to the highest possible degree. Didactic principles, forms, content and methods remain practically the same in this type of education and the ratio of their variability is extremely low. Usually, it is just a prescribed content interpretation for the exactly defined aim group of listeners (employees).

Specification of the education executed by a safety engineer lies in identifying of the aim groups the from the point of view of their ability to receive new information without any previous context. It is quite difficult for a safety engineer to foresee the trends of future development in conditions of educational practice, therefore they should be able to gather enough information on the level of previously obtained knowledge of the employees (now in the position of students). A programme of planned learning should serve as an efficient supporting tool.

There are three input information considered to be important:

Entry standpoint – it requires knowledge of the level of expected competences and of the level of motivation towards teaching.

Awareness of the aim – the aim should be planned and easily controllable. It is based on the level of study tasks and fundamental time units in the educational process. It results to the next goal connected to the future personal growth.

The way from starting point to the aim – he who offers an education must decide what method shall be used to develop a teaching strategy and what type of adequate tasks shall be offered to students.

Based on the above-mentioned facts we can consider the safety engineer an internal supervisor in supporting occupation.

4 Conclusion

At the Department of Technology and Information Technologies of Constatntine the Philosopher University in Nitra we suppose the synergic influence of concurrent education in more scientific areas at one place. Our belief is supported by the fact that the essence of OHS education is of a technical character. By a scientific preparation of our Ph.D. candidates we intend to increase the quality of education inter alia in the area of OHS. We expect assets in the process of preparation of our students at the department, as well as in the area of further education offered by our graduates to employees in the manufacturing practice.

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