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**INNOVATIVE E-LEARNING APPROACH IN TEACHING BASED ON CASE STUDIES –
INNOCASE PROJECT**

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Streszczenie: The article presents the application of innovative e-learning approach for the creation of case study content. Case study methodology is becoming more and more widely applied in modern education, especially in business and management field. Although case study methodology is quite well recognized and used in education, there are still few examples of developing e-learning content on the basis of case studies. This task is to be carried out within the INNOCASE project, funded with support from the European Commission under the Lifelong Learning Programme.

In this article, the methodology for transforming a case study into an e-learning module is presented together with some basic information about the project and its rationale. The project originates from the need of Gdansk University of Technology graduates, as well as graduates of other technical universities, to start their own company or become a manager in a small or medium sized enterprise (SME). Quite often those graduates lack practical knowledge on management and running an SME. The INNOCASE project aims at fulfilling this gap by providing practically-oriented, e-learning training devoted to common managerial issues in SMEs. As the input for this e-learning training, real-life case studies from SMEs are used.

Słowa kluczowe: e-learning, SMEs, business education, case study methodology, INNOCASE project

**1. INNOCASE PROJECT – TRANSFER OF
INNOVATIVE CASE STUDY APPROACH IN
BUSINESS EDUCATION**

The main goal of the INNOCASE project is to adjust and transfer the case study methodology worked out in RePro project (more information about this project one can find at: <http://repro.savonia.fi/>) to the new environment – Polish and other partner countries' business education systems. The RePro methodology is designed to support knowledge and understanding in the business environment, as well as contribute to personal self-development in terms of teamwork, project management, research skills and negotiation. In the INNOCASE project, this methodology is being modified to suit the SMEs environment.

Generally, the project addresses two target groups: a. trainers and teachers specializing in business education and b. SMEs owners/managers & university graduates willing to start their company or work in SMEs. For the first group, training in case study methodology is being prepared in order to increase their competences and skills in this field.

For the second group, e-learning case study pack is being prepared and will be tested.

The rationale of and the background to the project is multiple. The first reason is that SMEs dominate the European economy. At the same time, lack of skilled labour is a problem for more than one third of all SMEs in the EU (Guide for Training in SMEs, 2009) and SMEs tend to carry out little training (Quality in VET in European SMEs, 2010). SMEs are reluctant to external training, as they find it expensive, time-consuming, not so beneficial and not dedicated to their needs, but to the needs of large enterprises (Management training in SMEs, 2002). Furthermore, there is evidence that management training can reduce the failure rate of small firms (Ibidem).

The project addresses a crucial need for improving qualifications of trainers/educators in the field of case study (CS) methodology applied in business education aimed at SMEs. It fills the gap of training dedicated to SMEs needs by adjusting this methodology for the purpose of training SMEs owners/managers. CS methodology, worked out in another LdV project (RePro), combines educational problems and actual business problems. Within the project, this methodology is being adjusted to SMEs context and transferred to partner countries.

**2. INNOCASE METHODOLOGY AND CASE
STUDIES**

INNOCASE methodology is different from other methodologies using case study approach in the learning process due to the following elements (Richert-Kaźmierska et al., 2013):

- target group – on the market there are still very few comprehensive business trainings addressed to the SMEs sector, especially those applying case study approach as a methodological tool,
- topic - most common case studies present problems of large enterprises and their suitability for the SMEs sector is very limited,
- complexity – case study presents a specific business problem that occurred in the company from the SMEs sector and the actual or potential way to solve it, additionally the trainee receives materials presenting other possible approaches to this problem and guidance when such solutions may be taken into account,

- form of training – training will be held in the form of e-learning, which helps to reduce costs for entrepreneurs and managers wishing to take part in it and provides the wide availability of the course in many countries,

- universality – case studies refer to real problems occurring in the company representing the SMEs sector, with which many of SMEs owners/managers might have struggled in the past or may encounter at any time; case studies do not relate only to defined problems specific for a particular industry, region, characteristics of enterprises, etc.

Within the INNOCASE project, 12 case studies were prepared in 4 partner countries (Poland, Finland, Denmark, the Czech Republic) in close cooperation with 12 different companies from the SME sector. For these case studies, 12 short theoretical introductions were also elaborated as supplementary material serving as a background for smooth introduction into the main topic of the case study. The case studies are about the following SMEs: Hydrolina, Lingnell & Piispanen and TahkoTours (Finish companies), Laguna, Microsystems, Aiton Caldwell (Polish companies), Marel, Dampa, Interfocus (Danish companies) and Apavar, Arista and R Servis (Czech companies). Case studies concern a variety of managerial problems faced by companies from the SME sector and are a source of useful knowledge for SMEs owners and managers.

The case studies described above will be the input for e-learning modules aimed primarily at SME employees and managers and their needs for further education within their field of interest. Therefore, the case studies will contribute to developing their skills and competences within the fields chosen. The e-learning modules will enable the participants to acquire new knowledge in a cost- and time-effective manner.

E-learning modules will be available free of charge on the Moodle platform created for the project purposes five years after the end of project realization (by 31.10.2019). The address of this platform is: <http://innocase.zie.pg.gda.pl/moodle/>.

3. MODEL FOR CASE STUDY PREPARATION AND TRANSFORMATION INTO E-LEARNING INPUT.

Within the INNOCASE project, the model for case study preparation and its transformation into e-learning module was worked out by the project partners. The model is depicted in Figure 1.

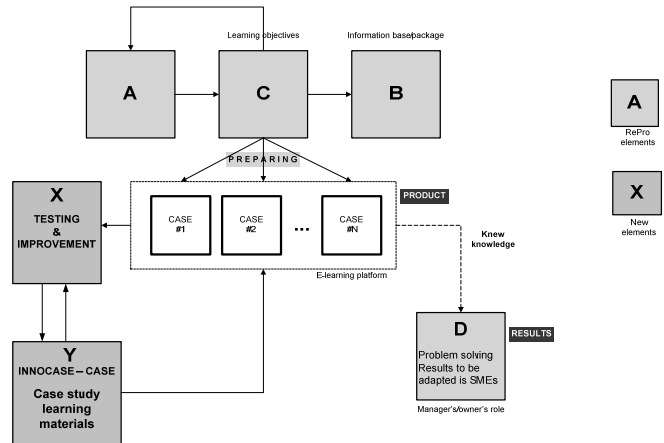
Figure 1. INNOCASE model for case study preparation and its transformation into e-learning modules.

The model consists of several elements – some of them originate from the RePro project, mentioned earlier and, the others are novel and generated within the INNOCASE project.

The first element, A, is devoted to looking for business partners. It is necessary to find appropriate companies in the local area which may not only be the source of case study materials, but also which will be eager to share their knowledge and background.

The next element in the order, C, is connected with setting objectives for the case study preparation. It is followed by element B – developing business context. This step of the model is aimed at identifying potential problems in the analyzed SME and further checking whether this problem will be possible for the analysis and case study preparation. Managers or owners of chosen SMEs play

significant role at this stage as they may help in the selection of a valid and interesting problem for the case study.



Elements of INNOCASE model:

- A-looking for business partners
- B-developing business context
- C-setting objectives
- D-finding solutions to the problem(s)
- X-testing and improvement of case studies
- Y-case study based e-learning materials

Source: INNOCASE partnership.

After the business context is developed and case objectives are set, case studies are created. It is important to keep in mind that these cases will be the input for e-learning study pack, so they need to be structured in a clear, unified way. In the process of case studies preparation, new knowledge is generated and transferred into solutions for the application in SMEs (D element).

As the INNOCASE methodology is novel and it has not been determined how to apply this methodology in the e-learning context, case studies and theoretical introductions prepared within the project were evaluated by three various parties (one professor-educator and two SMEs representatives) before being transferred into e-learning form.

After being improved, case studies and theoretical introductions will be transferred into e-learning modules, but before doing that it is necessary to analyze the assumptions for their creation.

1. They will address specific target groups (SMEs managers/owners, educators/trainers, university graduates).
2. They will be stand-alone modules, i.e. there will be no tutor or moderator available for the teaching process. This practice is very rare and poses a big challenge.
3. They will be a source of practical knowledge.
4. They will apply problem-based learning approach.

On the basis of the assumptions for the e-learning modules creation, the following potential threats and risks have been identified:

1. Course participants will be confused within the module content – they will not be able to absorb the knowledge without the guidance of a teacher/moderator.
2. Course participants will lack motivation to deal with the module content – normally teacher/moderator encourages going through the material.
3. Course participants may face some technical problems – a technical aid should be provided.

4. Module content might either consist of too much or too little knowledge necessary to understand the topic correctly.

Above-mentioned threats and risks will be dealt with in the following ways:

1. Manual for the e-learning study pack will be prepared - it will explain how to use the e-learning case study pack. It will serve as a technical help, as well as a guideline through the e-learning case study pack content.

2. Guideline for tutors/educators on how to use the e-learning case study pack will be created – it will be helpful in applying the e-learning case study pack in the work of teachers/trainers dealing with business education

3. Piloting and testing will be carried out among the SMEs managers/owners, educators/trainers, university graduates – it will allow checking the e-learning study pack cohesiveness, appropriateness, understandability, and usability without the teacher/moderator.

4. Tests and tasks will be embedded in the e-learning modules to enhance the motivation among students for course completion and verify their understanding of the issues presented.

5. Diversified forms of material presentation will be used, e.g. videos, presentations, outside links, etc. to eliminate the monotony of the teaching process.

All the activities and approaches presented above will help in eliminating the potential threats and risks connected with the creation of an e-learning study pack, based on real-life business cases originating from SMEs. As creating such a course is an innovative approach, it must bear some risks and uncertainties, but the ways of overcoming them are planned and they should contribute to the high quality of the prepared e-learning course.

CONCLUSIONS

To conclude, the creation of an e-learning course for a specific group of participants (i.e. SMEs representatives)

that will be carried out without a teacher/moderator is a big challenge. Specific content, based on business cases devoted to managerial problems in SMEs and prepared in close cooperation with those SMEs, might be difficult to be transferred into e-learning study pack. In this article, the methodology for preparing such case studies was presented, together with ways of changing them into e-learning modules.

5. RESOURCES

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6. ACKNOWLEDGEMENTS

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INNOWACYJNE PODEJŚCIE E-LEARNINGOWE W NAUCZANIU OPARTYM NA STUDIUM PRZYPADKU – PROJEKT INNOCASE

W artykule przedstawiono zastosowanie innowacyjnego podejścia e-learningu dla tworzenia treści opartych o studium przypadku. Metodologia studium przypadku jest coraz powszechniej stosowana w nowoczesnej edukacji, zwłaszcza w dziedzinie biznesu i zarządzania. Chociaż metoda studium przypadku jest dość dobrze znana i wykorzystywana w edukacji, wciąż istnieją nieliczne przykłady rozwijania treści e-learningowych w oparciu o studia przypadków. To zadanie jest realizowane w ramach projektu INNOCASE, realizowanego przy wsparciu finansowym Komisji Europejskiej w ramach programu *Uczenie się przez całe życie*.

W tym artykule, metodologia transformacji studium przypadku do modułu e-learningowego została zaprezentowana wraz z podstawowymi informacjami na temat projektu. Projekt powstał w odpowiedzi na potrzeby absolwentów Politechniki Gdańskiej, jak również absolwentów innych uczelni technicznych, którzy chcieliby rozpocząć własną firmę lub być menedżerem w małym lub średnim przedsiębiorstwie (MSP). Bardzo często absolwentom uczelni brakuje praktycznej wiedzy na temat zarządzania i prowadzenia MSP. Projekt INNOCASE ma na celu wypełnienie tej luki, dostarczając ukierunkowane na praktykę szkolenie e-learningowe poświęcone typowym problemom zarządczym w MSP. Materiał źródłowy do modułów szkoleniowych stanowią studia przypadków pochodzące z małych i średnich firm.

Keywords: e-learning, MSP, edukacja biznesowa, metodologia studium przypadku, projekt INNOCASE