

1. SP4CE portal usage scenarios

Purpose of the case study

Today, ICT increasingly penetrates into the various sectors of human life. There are present voices from the students and practice that provided education is not adequately linked to the practice. In order to enable universities to prepare students for practice, it is necessary to involve practice into education actively. In our case, one nice example is presented by cooperation with T-Systems company. T-Systems operates information and communication technology (ICT) systems for multinational corporations and public sector institutions. On this basis, T-Systems offers corporate and business customers integrated solutions for the networked future of business and society. T-Systems provides support to companies in all industries. At T-Systems are guided by three core values – innovation, simplicity and competence. Its solutions for customers is built on efficient and innovative technologies and on a clear understanding of customer needs.

This company actively participates on the educational process at our faculty (Faculty of Economics, TUKE) through practical lectures, exercises and specialized subjects concerned on using specialized software and the company's processes, via internships of our students directly in the company or via various student competitions and the labor supplies. Quite often form of cooperation is work on real projects, resp. participation on the different problems solution through bachelor's and master's thesis. Searching for students for such kind of work is not easy. At present, this process is carried out following: the company offers a problem/cooperation to faculty management. Then the teacher that is interested in such work is searched using faculty's mailing list. Afterwards the teacher tries to find the students. This process takes long time (app. few weeks) when neither knows whether it will be a demand from the students' side for such a project/cooperation. In many cases the result is, that companies stop propose such kind of cooperation to universities despite of interest from the side of universities. Despite the fact that on both sides of the process is interest in cooperation, collaboration often does not occur because, possible participants are not informed sufficiently and on time.

Implementation of SP4CE portal

SP4CE Portal (available at sp4ce.eu) presents interesting solutions of above described problem. The portal itself contain online information about the project SP4CE itself, guides for particular target groups (coaches, mentors, students), interesting learning materials, contributions to the various conferences and from the point of view of the above-described problem solution special part – challenge/call: "*Send us your project proposal*". Via this challenge can anyone call for the help. It is tool for looking for people interested in solving different kind of problems or for searching the partners for future cooperation operating in same of different areas. In the case of match of the challenge participants, administrator creates a Learning Room, specialized place, where can all together cooperate after signing up to a system. This challenge process works on the principle developed within EACEA project "*OpenInn2.0: A Knowledge Generating House and e-Assessment Model*", where the platform Knowledge Generating House was used to generate groups of investigators and innovative solutions to very specific problems.

Who are the users?

- Coach – HR manager working at the T-Systems who defines challenge. The challenge contains information like Project proposal, Description, Example resources, Language a Deadline for achieving the solution/results.
- Mentor – university teacher, replies on the challenge, adds comments, proposes time schedule and possible group of students.
- Students – university students with interest in challenge topic

How they can use portal?

- Read general information – all users have access to general information (about SP4CE project, different kind of guides, learning materials, conference papers, etc.).
- Search for partner among education institutes – via link: "*Send us your project proposal*" can anybody publish a challenge for searching new partners, problem solution.

Resources

There is no need to any special software for using portal sp4ce.eu. The portal is accessible via any web-browser (eg. Google Chrome, Mozilla Firefox, IE, etc.).

The Case

The T-Systems company is global company with large clientele, what means a number of project documents, therefore it searches for potential employees every year. The management of the company decided to prepare their future employees during their study in the project management field. HR department has to find suitable candidates for such cooperation.

How it was realized?

- Using portal sp4ce.eu HR department representative publishes challenge (Fig. 1).

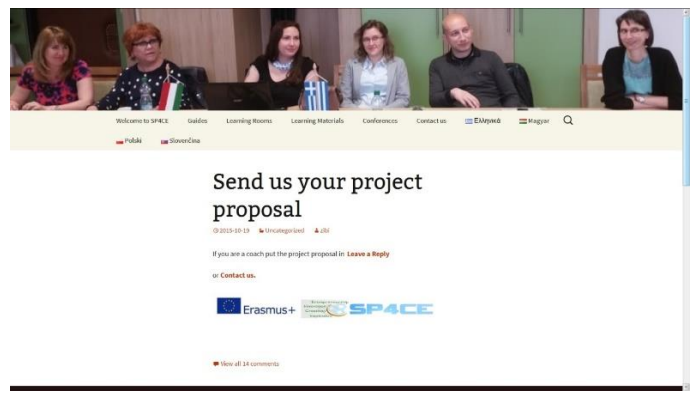
 A screenshot of the sp4ce.eu portal. At the top, there is a video player showing six people in a meeting. Below the video is a navigation menu with links like 'Welcome to SP4CE', 'Guides', 'Learning Rooms', 'Learning Materials', 'Conferences', 'Contact us', 'Erasmus+', and 'Flagship'. The main content area features a challenge titled 'Send us your project proposal' with a date of '2016-04-15', 'Unexpired', and '400'. It includes a call to action: 'If you are a coach put the project proposal in Leave a Reply or Contact us.' Below this are logos for 'Erasmus+' and 'SPACE'. At the bottom, it says 'Now all 24 comments'.	<p>HR Consultant 2016-04-15 at 06:51</p> <p>Project proposal: How to write a good IT project.</p> <p>Description: T-Systems looking for motivated young people interested in project management to participate on project proposal development at our company. All resources needed for project proposal development will be provided.</p> <p>Language: English, Slovak</p> <p>Deadline: 20.09.2016</p>
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Fig. 1 Screenshot of sp4ce.eu portal and example of published challenge

- The university teacher replies on the challenge.
- Via discussion tool at the portal company describes the requirement in more details and discussed it with teacher.
- Since both sides of communication agree on fact, that there is need for materials that cannot be published public, HR manager asks portal administrator to open a new Learning Room (LR) for newly formatted group.

Findings, recommendations and variations

How it develops partnership cooperation

Through publishing challenge, portal SP4CE presents a gateway for establishing cooperation. Subsequently is this call transformed into LR where the where the cooperation really can take place at several levels using various features of the SP4CE platform. The advantage of this open SP4CE portal is that to one challenge can reply users from different institutions, which further can work together also on other projects in other areas.

Possible risks

- Most significant risk should be lack of interest form users, i.e. despite the publication of the call, no one will respond and the challenger will have to use other ways of establishing cooperation.
- Another risk may be presented by huge interest in cooperation and following hard decision with whom to establish co-work together.
- Time limitations – in case that the challenger specify the time limit for achieving the reply or solution, it can happen that nobody will manage to log on to the call during expected time.

What not to do / be aware of the following

It is important to define the call very precisely with useful details to avoid misunderstandings. Very general call could meet with disinterest of other users.

Summary

Guideline Summary			
Kind of education			
Non formal	Vocational	Secondary	University
			X
Identification of involved users roles			
Coach (company)	Mentor (teacher)	Students	
X	X	X	
Focus area			
Project management			
Main objectives and goals			
Company			
<ul style="list-style-type: none">Find skilled and motivated new employees, potential partners for other projects			
Students			
<ul style="list-style-type: none">Create a contact with company			

2. Learning rooms usage scenarios

Purpose of the case study

Using sp4ce.eu portal was published call for cooperation establishment in project management area. Both sides – T-Systems company and Faculty of Economics, TUKE (FoE, TUKE) – agreed on this co-work and its details. During discussions cooperation details they discovered that some of important materials cannot be published public, but they need some space just for registered users, where materials, new project proposals, company internal processes, etc. could be available in restricted way based on user role in the system.

Implementation of SP4CE Learning Rooms

Platform SP4CE and its Learning Rooms (available at <http://sp4ce.moodle.pl/>) allows user registration and role assignment particular LR (Fig. 2). For using this space, every user has to register into system. Range of features and tools depends on the role of the user within the particular LR. Possible roles are manager, course designer, teacher, student, guest and registered user. Based on the role user has available different group of sources, tools.



Fig. 2 Welcome screen of SP4CE Learning Rooms

Every SP4CE LR is concerned on specific problem that company face and publishable sources to help students understand the problem itself. Teacher help coach to provide materials that are useful for students, to prepare place for discussion, interactive cooperation, new solution proposals and evaluation.

Who are the users?

- Coach – HR manager of T-Systems company, who provides materials that are useful for students, prepares place for discussion, interactive cooperation, new solution proposals and evaluation.
- Mentor – gives an introduction to the topic, to the main ideas and objectives needed to be achieved, help students to establish successful cooperation with coaches from companies, help to coach to develop structure of the learning room using different available features.
- Students – in connection to coach and teacher try to find out solution to provided problem, work out assessments, prepare project proposals.

How they can use LRs?

- Coach in cooperation with mentor (teacher) prepares LR structure. Within this phase they discuss LS available and useable features of LR, kinds of activities needed to be done by students (Assignments, Feedback, Chat, Forum, Workshop), resources (Book, File, Folder, Label, Page, URL), which will be used in LR. They agree on evaluation methods of final results, manner of its publishing and level of access.
- Mentor address students – on lectures, via e-mail or other way to register to the system and prepared LR.

- Students could study provided materials and other resources, communicate with mentor or coach, work on project proposals, search or ask for additional information.
- Coaches and teachers manage all specific tasks needed to be done during the problem solution. LR users team consists of members with their own specialism and expertise, knowledge related to the problem to be solved. Using this collaborative environment takes students out of their usual studying to co-work with other with different ideas and knowledge and at not least with people from real companies. Everybody can use own competencies and skills to reach the best result.
- Coaches and mentors could evaluate and mark the students' activity.

Resources

To access the LR the registration to LR system and access key is needed. Key is provided by face-to-face communication, via e-mail by the mentor. For work with LR itself no special software is needed, just user preferred web-browser (i.e. Google Chrome, Mozilla Firefox, IE a pod.). Maybe the solution of particular problems and tasks requires some specific software, but users have to be informed about it within LR. To prepare project proposal students need to use ordinary MS Office applications – MS Word, MS Excel, MS PowerPoint.

The Case

The T-Systems company is global company with large clientele, what means a number of project documents, therefore it searches for potential employees every year. The management of the company decided to prepare their future employees during their study in the project management field. HR department has to find suitable candidates for such cooperation.

After agreement between HR department of the company and teacher from FoE TUKE, HR department representative asked SP4CE platform administrator to create a LR named *“Tvorba projektov pre podporu regionálneho rozvoja”* (Project proposal design for the support of regional development). Finally, LR was used by 1 coach from T-Systems company, 1 mentor from FoE TUKE and 16 students.

The main objective of LR use was to raise the interest of students in their subject of study and at the same time the way to approach solving some existing problem in reality in a creative way, to develop contact with real company. The LR was concerned on all knowledge needed to know during the successful project proposal preparation.

How it was realized?

- Coach and teacher prepares the structure of LR (Fig. 3) containing introductory presentations about main aims, objectives of the LR, resources important for project proposal development, best practices and information about activities and results required from the students. They fit it to company requirements in connection with pedagogical principles. At the same time, they describe how the creative approach should be involved and which types of software tools should be used in the particular project proposal development phases (app. 10 h.)

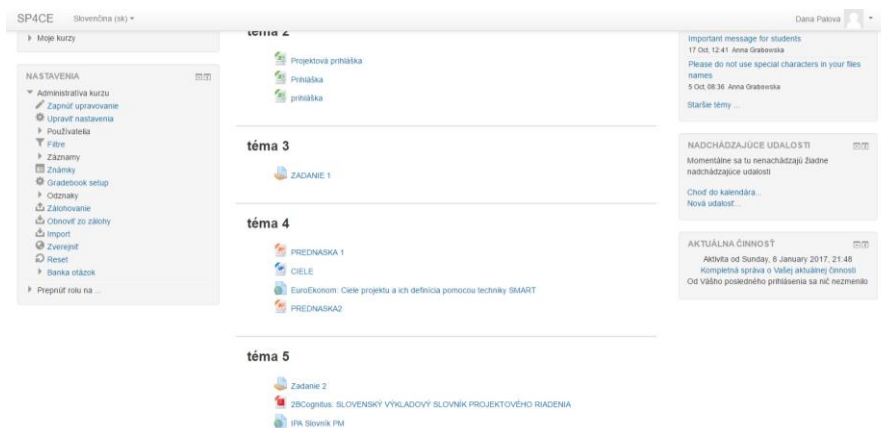


Fig. 3 Screenshot of *“Tvorba projektov pre podporu regionálneho rozvoja”* LR

- Based on provided resources students start to work out their project proposals – they define the first draft of project proposal (name of the project, duration of the project, estimated budget, aim of the project, description of applicant, target group) (app. 20-24 h. – depends on the research of students in her/his surroundings for what could be designed a project proposal).
- During the whole project proposal development process, she/he should discuss his/her progress and ideas with the teacher, coach and other colleagues in the class. They could use on-line chat, discussion forums or instant messaging feature.
- Next students have to divide their proposal by sub-aims and particular activities of the project containing more detailed information (app. 20-24 h. – depends on the complexity of the project).
- During the whole project proposal development process, she/he should discuss his/her progress and ideas with the teacher, coach and other colleagues in the class. They used on-line chat, discussion forums or instant messaging feature.
- Students design the presentation of his/her project using electronic presentation concerned especially on project aims, sub-aims, justification of the project purpose, description of activities, outcomes, required budget and impact and sustainability (3-8 h. – depends on the ICT skills of the student).
- Students present the results in the common lesson, where during discussion other students should add comments and evaluate the work of others. These reactions are part of the final evaluation of the students' project by the coach and teacher.

Findings, recommendations and variations

Main findings

Using SP4CE LRs environment, teacher plays the role of a mediator helping to company representative (coaches) to define the tasks to be solved and sources needed to get deeper understanding the problem. On the other hand, teacher helps students, via employing personalized learning approaches, collaborative learning and critical thinking methods, in developing solutions and communications with company representatives. Main positive aspect is that students use familiar environment that is familiar to them.

How it develops partnership cooperation

The students develop their view of the matter around them and their creative access to its solutions. They learn methods and tools they can apply in their daily life operations.

Possible risks

Development of project proposal took a longer time (particularly if the phases of project proposal development are spread across the whole semester – app. 4 months), because of the more complex objective of the task. Most of the work is done during homework; it should take app. 50 hours. In case of the need for study of the work with ICT tools, there is the possibility of studying these materials from home and have on-line/off-line support from the coach or teacher via LR.

What not to do / be aware of the following

Do not take a too complex project challenges to which the students do not have any relation. The lack of ideas can then lead to frustration and de-motivation. Sometimes it is difficult for the students to start, their minds are blocked in finding a problem and the proposition of some solutions, in such cases it often helps to give examples of how to proceed.

Due to the high complexity of the project it is necessary to describe all the phases and expectations of the product very precisely, to provide examples and active feedback on the students on going activity.

Summary

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X	X	X	
Focus area			
Project management			
Main objectives and goals			
Company			
<ul style="list-style-type: none"> • Provide practical example and exercise of project management in real company conditions to the students • Find skilled and motivated new employees • Possibility to improve education process • Access to different interesting, innovating and untraditional solutions of the problems that they have to face (and within company they are usually dealt by traditional approaches or they have lack of employers for this specific field, respectively • Access to information about real knowledge and skills of students; • Possibility to affect the content and style of education at educational institutions; 			
Teachers			
<ul style="list-style-type: none"> • Access to contacts to people from external companies – possible future cooperation not only via SP4CE, but on projects, company education etc.; • Reach overview to marketplace requirements – way how to connect education with practical life and improve the education content and style; • Possibility to try e-learning methods, blended learning resp., what can be implemented into education at university; 			
Students			
<ul style="list-style-type: none"> • Achieve practical skills in field of project managements • Contact with reality – teamwork within real company team • Possibility to check collaboration work style with different kind of people (nation, specialization, etc.) 			