

**RePro
Project**

Real-Life Business Projects in
Multicultural Student Centered Learning



REPRO, REAL-LIFE BUSINESS PROJECTS IN MULTICULTURAL STUDENT CENTERED LEARNING

PRE REPORT

1 INTRODUCTION

The key aim and innovation of REPRO-project is to develop a model, REPRO-model, for producing, testing and using actual business oriented cases and problems in a multicultural learning environment. This is done on one hand by combining educational problems and actual business problems, creating 12 REPRO-cases that can be used in different types on student centered learning (SCL) situations and environments.

The project takes place in an international learning environment, altogether between 24 partners. The main target group of the project is in international students and teachers.

As the results of the project will be achieved twelve tested REPRO-cases based on multidisciplinary student centered learning in real business context; two guidebooks: teacher's manual and student's guidebook; a step by step REPRO-model of constructing SCL-cases in multicultural context and four reports: the state of art of SCL-methods-report, evaluation report of the best practices, self-evaluation report, final evaluation report.

When business oriented, joint learning cases will be started to construct by different schools in different countries in order to develop a new learning model by means of them they need the common pedagogical concepts. In this report will be explained basic concepts linked to principles of student-centered learning so that the participants in this project can speak the same pedagogical language when constructing the common learning environment and its concrete implementations.

Recent educational researching results achieved in intelligence and learning have emphasized that the quality of teaching and learning could be improved by student-centered learning environments. Students' knowledge and problem-solving skills are able to be increased and deepened by their earlier experiences and schemes. Though student-centered learning environment is primarily used, systematic and well-organized learning system will be not rejected; on the contrary when students are wanted to guide toward self-directive learning environments decisions must be well planned and organized.

2 ABOUT LEARNING CONCEPTS

2.1 Learning concept as a tool of design

Concepts of learning have always been connected with existing human concepts and sciences. When human being was started to regard as an curious and active being the concept of a student as a passive receiver began gradually to change. When it was realized that main sources of knowledge are situated in student's schemes and cognitive processes, the concept of learning supported the previous concepts gradually began to give a way to learning concepts emphasizing to re-organize the knowledge, problem solving and ar-

gumentation. The students are individuals with the different learning styles and strategies of their own, they explain and construct surrounding realities on the basis of their earlier experiences and schemes.

The objectives set into learning formulate the concept of nature of information and its levels when learning cases will be planned. It must think about i.e. what kind of learning will be achieved. Besides it is important to define how thinking skills will be developed or what kind on information will be taken in.

At first the cognitive objectives must be recognized on the basis how the facts and skills are used on the different levels of knowledge: is it essential to recall, remember, understand, apply, analyse, appraise or construct knowledge. It is significant to identify the intellectual objectives as well, in this case one must know what to learn: facts, concrete, abstract, descriptive, metacognitive or procedural knowledge

Is not only an intellectual process to grow an expert, but it will be also combined with growing into a social community, adapting and accepting values and rules of learning culture to construct the identity and the new relationships. Need of life long learning will demand modern learning environments to support adaptive expertness, processes supporting learning to search new problems, create new aspects, and break existing bounds of information.

Different learning concepts have an effect on teachers' roles and activities in their daily working. According to traditional concept of learning the most important person in a learning situation has been the teacher as preparing and outlining information to students. The teacher has not only transferred information to students but also he/she has strengthened links between the parts of information. Traditionally the teacher has given prepared and well planned lectures, guided exercises with perfect examples. Students have listened attentively, taken a good example recalling and repeating the facts. Traditional, teacher-centered learning has based on concept learning by heart. One of the teachers duties has also been to motivate students. The learning processes have been evaluated by exams, so grading has based on external activities.

In student-centered educational environments learning is seen as an individual and community process of building knowledge and skills. Learning is an active and goal-oriented process that includes independent or collective problem-solving where the learners are responsible for their own learning processes. Even though learning involves a great amount of independent work and self-direction, students are supported and given expert guidance during the whole learning process.

2.2 Student-centered learning concepts

In the background of student-centered practices there is not only one concept of learning but a lot of different elements have been absorbed by them from many other concepts of learning. Constructivism consists of various orientations, anyway all of them will emphasize that information can't be transferred as it is, but it will be constructed by a student or a social community. During the learning process student's role is always to construct knowledge him-

self/herself, no one else can't learn on behalf of any other person. Besides information will be interpreted and reconstructed individually by the student himself/herself. During this process the earlier knowledge and experiences will be put to good use.

Nobody doesn't learn only by stating the facts, but learning occurs in interactive dialogue by asking and finding knowledge, which makes possible to achieve well structured intellectual basis and individual learning. The real learning will be possible when active and independent persons solve problems together, when they research presumptions and basis influencing in the background of their own thinking and activities. They also think about theoretical explanations and construct their personal knowledge and understanding.

It's very important to activate student's thinking ability, in order to attain knowledge of high quality during the learning process. The activity will be achieved by motivation, intellectually challenging and hierarchic learning exercises and focused learning. If the high quality information construction process will be attained, students' metacognitive skills linked to guidance of their own learning processes will play a very important role. Gradually students are guided toward self-regulation and self evaluation abilities, because their metacognitive knowledge and strategic self regulation abilities play an important role in learning processes. By reflecting his/her own activities the student can make more and more better results of learning. In this case understanding learning can be possible.

Learning can be regarded as a result of an individual constructing process, when teacher's duty is to take care of the outward circumstances in learning, create work based context for learning. As a facilitator and a go-between of his/her own expert culture the teacher has to facilitate a student in the way towards his/her learning aims. Besides the teacher helps a student to develop his/her metacognitive skills by planning social and physical elements of learning environment to support students's activity. Different ways to guide a student, based on constructive learning concept can be considered modelling a learning exercise, supporting a student in due course and reflecting her/his thinking process.

Student's earlier knowledge and common experiences lay foundations for learning new things, and for that reason they must be chosen as start points in learning. To become aware of concepts like this, teachers must understand how students are thinking. Procedures like this will also help to create a modern student centered learning environment.

Contextualism. As a starting point for learning are used work based situations, and contexts are consisted of authentic partnerships as possible, so that learning will be always occurred in real life contexts. This is very important because context always effects on learning process. In that case students are self directively able to formulate their problems into learning tasks in order to lay the foundations for learning. A meaningful learning context can increase motivation. In this case concept of student centercity is defined student's independence and responsibility for the learning of his own.

One of the challenges of learning and studying is considered releasing from situational involvement; student could apply knowledge to novel context. Transferring like this is used to improve studying by constructing learning environment so that it is as similar as possible to the environment where the know how is meant to apply.

Therefore, to produce positive transferring, we need to practice under a variety of conditions. Within a given framework of individual behavioural processes learning of substances, meanings and procedurals learning will be occurred in interaction with surrounding environment. Student constructs knowledge by using building materials coming from real life; during information processing he/she chooses and interprets by means of feedback given by teachers. In this case transferring will enable learning; in certain situation the knowledge could be applied in an other situation or task.

The context of knowledge will always effect on transfer: some facts are able to learnt in one context but it can't be transferred in the other contexts. How tightly learning process is linked to the context, usually depends on ways the knowledge has been achieved. Transferring from one context to an other will be undergone when a subject has been taught in a single context. The process is especially difficulty when the subject has been taught in one context only. In the previous case it may be difficult to recall or apply the knowledge in other connections. When certain subjects will be taught in many different contexts and they are involved in examples and experiences, which indicate how widely the subject can be applied, students are able to abstract features of concepts and develop flexible representation concerning their knowledge.

Transferring can be made better by helping a student to develop more and more conscious of himself as a learner, that is keeping watch on his/her learning strategies and resources and evaluate willingness as to certain exams and performances. When teacher takes an attitude towards learning metacognitively, students will transfer their knowledge toward new situations and teacher need not lead them one by one.

Experimental Learning. Different sides of both external and internal activities – experiences, memory, thinking, emotion, motivation i.e. – will be emphasized by experimental learning. Learning is a continuous process, where knowledge will be created through experiences and changes: novel information will be evoked and continuous tested by students' experiences. The process are going ahead until understanding and learning have been achieved. Every student will entail their own experiences in order to increase and diversify under studying. Personal experiences are shared among other students and teachers or tutors. Learning in a comprehensive process, working together with an environment.

Experimental learning emphasizes importance of self-knowledge and self-reflection occurred during the learning process, testing various strategic plans and internalizing values and attitudes. Students' own experiences play an important role in learning as well.

3 LEARNING AS PROCESS

Learning environment can be seen as a co-operatively working group, where students produce knowledge on different levels co-operatively inspired by joint expertise. Foundations of learning process are based on joint expertise and co-operatively learning constructive process can be found among working life based problems, which will become stimuli of learning. Students are guided to observe, find phenomena and state of affairs. At the same time they will be aware of the fact that continuous stream of changes affect on understanding and cultivate it. In process-based learning will be gradually internalized operational models in social and cultural situations, where learning will be happened.

New skills and dimensions of thinking will be learnt by taking part together in tasks which could be too difficult to do alone but which can be done in a group of students.

Teacher's duty is to support process like this and help students in problem solving. One of the most essential principles when training skills of thinking is meaningful contexts; if it is possible to construct support of learning and teach subjects so that student's earlier knowledge and concepts are paid attention to. In addition it might be tried to develop educational methods which are possible to fit for students' skills and special requirement of contents. At its best learning is researching process, which creates both new comprehension and knowledge. Learning impressing on processes views feedback during the process and evaluation as an important thing. Feedback is a part of learning, so that it must be given students before the learning process is finished.

Although problems can be solved in more ways than one learning processing and progressing will be driven by certain principles. It is always important to analyze the starting point of the learning situation, because during information constructing students have to perceive various aspects in order they can understand subjects they want to learn. Students are studying by comparing novel information to their earlier schemes and giving meanings to them. Experiences will be interpreted and analyzed all the time, when the learning are based on students' earlier knowledge and experiences.

In analysing phase it is gathered up relevant, reliable and usable information concerning on nature of problems and at the same time indicating profound nature of the problem. It isn't possible to think about knowledge producing possibilities until the backgrounds have been analyzed. Knowledge producing will take place in dialogue, in the processes based on interactive practices, where the main factors are questioning, critical thinking and communication.

Previous learning experiences don't always remain as basics when studying new things, but it must been questioned and developed. Secondly, sometimes it is impossible to go on learning without old knowledge. Learning new and challenging things will be occurred in co-operation with former learning experiences: thin tie will become thicker rope, and this way will be achieved new and permanent information.

During co-operative, knowledge constructing learning the outcome of learning is not only student's exam answer but more or less quality output. Learning result is first of all a explaining model has been produced by a group of stu-

dents as an answer to the phenomenon they have specified. The solution is the output achieved by a group equipped with joint expertise.

4 CHALLENGES OF STUDENT-CENTERED LEARNING

When developing learning environment it is important to notice the changes don't only concentrate on separate elements of learning process, but developing is comprehensive tendency make better the quality and meaningfulness of learning. Demanding, student-centered learning environment will challenge students to study, share information among groups, and find out real work-life solutions.

Characteristics of student-centered learning can be presented as follows:

- activity and self-directive learning will be emphasized
- studying will be mostly occur in working life situation
- students can interact with the studying subjects
- in planning and implementing learning will be emphasized by integrated problem-based orientation instead of subject centrality
- studying is comprehensive, logical process instead of short-term lessons
- various support persons and tutors have established networks to guide and support students
- the role of a teacher has changed from knowledge sharer to organisator and tutor.

In student-centered learning culture it must pay special attention to information, skills, attitudes and beliefs that students have entailed into the learning situations. One important part of the learning wholeness is culture supporting learning practices the students have absorbed. This ensures that students will internalize learning workings in learning environment and can use them according to certain level. Student-centered activities can be viewed in proportion to three principles, the learning environments would be developed with: information centrality, evaluation centrality and community centrality.

Learning environment can be characterized as a physical space, social community, working practise or resource of learning materials or guidance or combination of these two. These have been organized to support and advance learning. When student-centered learning concepts have strengthened the concept of teaching to transfer information from student to teacher has decreased, when during learning and teaching has been started to observe more and more indirect influencing through contextual factors. The way a teacher will edit students' educational environment favourable for learning and organize learning in this environment produces goal-oriented, high quality learning results.

Learning environment can be compared with an ecosystem, when learning process and its elements supporting learning processes will be fastened attach. A student interacts with the environment, and the essential attach will fasten to qualitative changes which occur in students' minds.

From the viewpoint of dialogue learning is connected to quality of interaction: in the dialogue students are really trying to understand one another. Learning system are understood as a context, where students together reflect with each other their concepts, study various things and construct knowledge by solving problems.

Start points of learning are situated in the ideas connected to social and cultural contexts. Out of the viewpoint of socio-cognitivism students learn co-operatively by effecting each others' schemes and creating new knowledge and expanding their understanding. At the same time are emphasized the role of meaningful and authentic factors in tutoring of students learning process. Also, it is important to stress on the meaning of joint information, when it will be cultivated student's comprehension and develop skills to solve problems as target of learning.

Collaborative learning is activity, where a student community try to intentionally understand and explain a phenomena together. The real learning process emphasizes in learning environment, the knowledge constructing process, when different concepts, explanations and arguments are compared and examined critically. One of the main objectives of learning is to ensure that knowledge and understanding will qualitatively change, not only increase. The meaning of learning process will be to utilize every students' cognitive resources in order to widen and deepen understanding among the community.

The problem will be co-operationally and spontaneously solved by students. Students' roles are flexible and they often change during the same learning period. Nowadays co-operative learning are often understood as a way to study so that every group member has common task and common objective. In this process will be achieved to construct joint meanings and common understanding interacting with other group members. When cooperating students don't learn therefore they are interacting but they will learn because they are doing something that brings out mechanisms leading to learning, i.e. various thinking processes. It will be meant operations we utilize in order to attain learning mechanisms: between individuals are supposed to occur interaction which starts learning. Situations like this can be organized by using different pedagogical methods. The main objective is frequently to make possible the group members could construct a common meaning about the subjects they are learning.

Co-operative learning emphasizes shared objectives in the learning situation, and students participate in implementing it together. Wit the help of exercises group members are dependent on each other, which will achieve interaction to improve learning. Small groups are strictly studying together, and the tasks have been distinctly shared in advanced by groups members: each member is solving a certain problem or is acting in a certain role. The works will be shared, part exercises will be solved individually and at last the parts will be put together so that the final products have been done.

When you'll start to plan the objectives and implements of student-centered learning environment, many factors must be reconsidered: what to teach, how to teach, how to evaluate. A lot of factors are affecting in the background when designing a learning environment: student-centricity, knowledge-

centricity, evaluation-centricity and community-centricity. Student-centered learning environment consists of the next four aspects of learning. All of them can crisscross and have effects with each other. In the circle can be noticed three element interacting with the basic elements of students-centered learning: learning as a process, learning based on working life contexts and learning as a life long course of events. (Figure 1.)

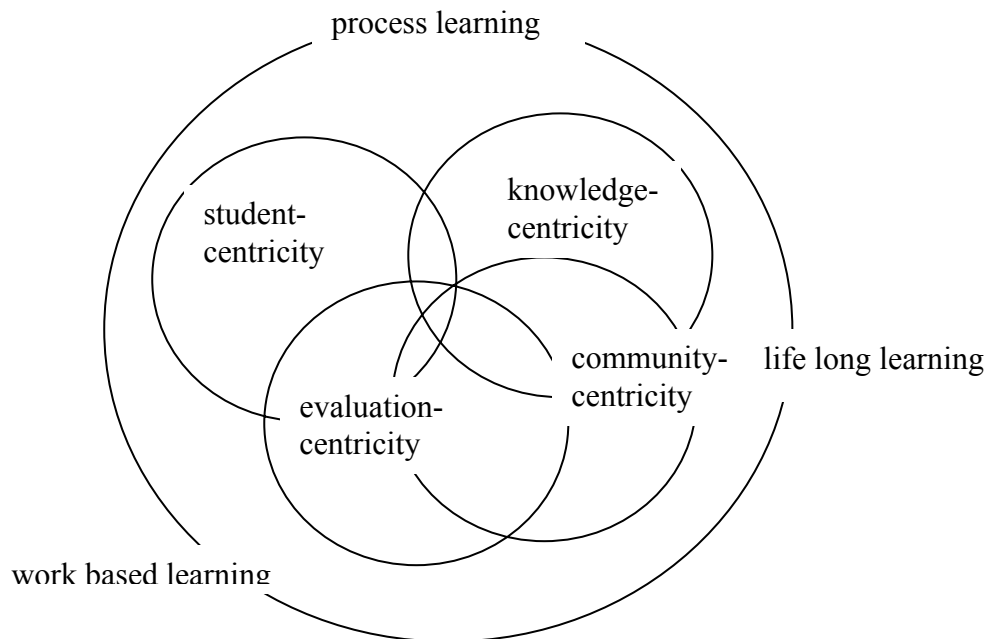


Figure 1. The elements of student-centered learning environment

In the student-centered learning environment students are tried to help to combine their previous information to subjects under learning; they are guided to construct connections between new and old experiences. When planning learning environments it must think about methods with which it is systematically possible to acquaint with every students' special interests. Since students apply their current knowledge in order to construct a novel understanding, their know-how and beliefs in question have an effect on interpreting new information. Sometimes students' current knowledge supports on learning, sometimes it will even prevent from learning. Anyway experiences have been brought into the learning situation by students who start learning process: cultural practises and beliefs and contents of subject.

An effective learning environment must be knowledge-centered; teaching only common problem solving and thinking skills will be not enough. Students' thoughts and ideas will be placed into the educational focus by knowledge-centricity and drawn their attention to the core contents, the facts that will be taught and why. The ability to reflect and solve problems will demand well organized basics of knowledge, which can be achieved in appropriate contexts. When planning educational process must be taken students' knowledge level into account. New concepts must be offered so that they are understood by students as well.

When developing learning environment it must be thought about also from viewpoints of curricula. It has to consider how much students are needed to encourage to understandable learning and how much advanced to structure to entities and really understand the subjects under learning. Recalling separate facts is not understanding learning in its real meaning. If there is too much choice in curriculum, maybe they mainly develop separate facts, not organized knowledge. One of the basic duties of curriculum is giving assistance to students to develop paths linked each other both in a subject and between different subjects.

Students will be assisted by continuous and developing evaluation to make use of feedback originated in learning processes and learnt the hard way, because feedback plays an important educational role. In the process like this importance of students' self-evaluation will be also emphasized. Assessments awarded in the end of exam or exercises are not sufficient as it is. In addition formative evaluation is required for it facilitates a student to make better the quality of his/her thinking and education. The assessments have to reflect learning objectives specified various environments. If the main aim is to increase comprehension, recalling of separate facts and diagrams are not sufficient.

Community-centricity are aiming to break limits of learning environments at schools by making good contacts with external communities and professional cultures. Norms will be obeyed by students, teachers and other persons concerned which esteem learning and high-quality teaching; at the same time are created and furthered spirit of belonging. Norms like this will increase peoples' possibilities to interact with each other, get feedback and learn.

In a student-centered learning environment exact attention will be paid to the knowledge, skills, attitudes and beliefs, students will bring with into the learning situation. A tight part of it is consisting of teaching methods, which must be culturally receptive. In this case during learning process will be aimed to find out students thoughts of exercises in hand, discussed politely their misconceptions and let them to consider cases they are able to specify their thoughts with. Teachers applying student-centered methods recognize how important it is to create an atmosphere for the conceptual and cultural knowledge students take with into a learning situation.

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This project has been funded with support from the European Commission. This publication [communication] reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.