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STAR

for Georgia and China

LEARNER-CENTRED TEACHING MANUAL

a training pack for university teaching staff

Edited by Tsvetelina Harakchiyska

Masaryk University, Brno 2018

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1. INTRODUCTION

Tsvetelina Harakchiyska

The *Manual for Learner-centred Teaching* constitutes as essential part of the overall architecture of the Erasmus+ project "Learner-centred Teaching – Advanced Recourse for China and Georgia" (STAR). Its main objective is to provide the basis for the design of the training sessions for the development of knowledge, skills and competences of university lecturers from China and Georgia to implement learner-centred teaching practices in their classrooms.

1.1. The need for the manual

The idea for developing the *Manual* has been motivated by the analysis of needs of the partner countries partners which pinpointed the importance of updating the educational contexts of higher educational institutions of China and Georgia and making them more suited for the development of students who are better equipped to the needs of the labour market and to the challenges of 21st century citizenship which requires that young people are able to:

- use a rich spectrum of reasoning (e.g. deductive, inductive, critical, etc.) in different situations and contexts;
- analyse complex systems and find out the ways in which their constituent parts interact;
- make judgements and decisions on the basis of facts and other data;
- formulate and defend arguments and claims as a result of performed analysis of points of view, beliefs, claims;
- offer creative solutions to different problems;
- collaborate and communicate successfully with representatives of different cultures;
- reflect critically on and assess their own learning experiences and the experiences of their peers;
- use multiple media to present and express ideas, thoughts and solutions;
- become self-oriented, independent life-long learners.

In response to this the current Manual attempts to provide theoretical information, as well as practical ideas on the possible ways to approach learner-centred teaching in higher educational institutions by utilising the experience of the EU partners in the STAR consortium, while at the same time referring to practices which have already taken place in the two partner countries that are paving the way for implementing student-centred instruction. With regard to these the Manual is structured along two main sections:

- Theoretical section with a focus on learner-centred teaching, the competences of university academic staff and students for empowering critical thinking, creativity, collaboration and communication in the classroom and a brief overview of a set of selected learner-centred methods;
- Practical section with a focus on the ways in which learner-centred teaching, learning and assessment take place in an university setting.

1.2. Purpose of the manual

The *Manual for Learner-centred Teaching* aims to provide a possible road map of approaching learner-centred training of university academics willing to implement teaching strategies that allow students to take a responsibility for their learning, to participate actively in building their own knowledge and capabilities and to be confident, reflective and innovative thinkers and future professionals.

1.3. How to use this manual

The *Manual for Learner-centred Teaching* has been designed to correspond to a 2,5 day training course comprising of about 18 teaching hours. The tasks included in each of the three modules is to be delivered within 90-minute sessions, however, the timing of each session could be modified depending on the needs of the trainees.

The materials included in each module provide a theoretical background of the discussed learner-centred methods and hands-on experience with a focus on how the respective method could be implemented into the teaching context of the participants. A supplementary set of interesting practices, which are collected from both the EU partners involved in the STAR project and the partners from the two partner countries – China and Georgia, illustrate the possible use of each method in the specific instructional settings of the participants and provide practice-oriented examples.

The three modules are organised in a logical sequence which presupposes that the training has to start from Module One, which provides the theoretical background of learner-centred teaching and the competences university lecturers and students need to possess for effective and efficient classroom teaching and learning, and continue with *Module 2 – Hands-on experience with learner-centred teaching methods* and *Module 3 – Assessment in the learner-centred classroom*. Since the modules contain a combination of theoretical insights and practical tasks, they require the active participation of trainees in the sessions based on critical thinking, problem-solving, collaboration and communication.

As the sessions aim to develop participants' better understanding of learner-centred instruction, the trainer is encouraged to include at the end of each module self-assessment questions which would contribute to the internalisation and personalisation of the learning experiences of the participants. Such questions might include:

- *What have I learned?*
- *What do I find most useful / interesting / applicable to my teaching context?*
- *What do I need to change in my teaching to make it more learner-centred?*
- *What else do I need to do in order to implement learner-centred teaching in my classroom? (e.g. read more about a learner-centred method, experiment with lesson planning, design new teaching materials, improve my skills for …)*

2. LEARNER-CENTRED TEACHING

Tsvetelina Harakchiyska

Learner-centred teaching is a phenomenon that dates back to Ancient Greece. Features of it can be found in the dialogues written by Plato in which Socrates uses a lot of questions to get a better idea of the moral values of the other participant in the discussion. The approach applied by Socrates resembles learner-centred instruction since it involves the generation of questions that attempt to facilitate the exploration and understanding of the content of the new lesson and its subject matter.

Although the beginnings of learner-centred instruction could be traced back to the classical period of Greek history, the origin of modern learner-centred education is marked by the birth of the Romantic Movement in the 18th century. It was the French philosopher Jean-Jacques Rousseau (1712–1778) who put forward the idea that education should be adapted to the needs of learners, to their age and level of cognitive development. Furthermore, he believed that children should be actively involved in the learning process.

> *"Let him [the learner] know nothing because you have told him, but because he has discovered it himself" and furthermore 'give your pupil no lesson in words; he must learn only from experience'."*
>
> [Rousseau, 1974: 131 in McCulloch and Crook, 2013]

His ideas resonated in the work of Johann Heinrich Pestalozzi (1746–1847) and Friedrich Wilhelm August Froebel (1782–1852) who also supported the claim that children learn best when they gain knew knowledge from personal experience and discovery. Similar views were expressed by Maria Montessori (1870–1952) and the American educationalist John Dewey (1859–1952) who both pinpointed the essential role of scientific observation, experiments and physical activities suited to the interests, needs and developmental level of learners. In fact active learning was also part of the theoretical framework of constructivism founded by the Swiss psychologist and natural scientists Jean Piaget (1896–1980). **Constructivism** highlights the fact that learning is an active process in which learners perform different actions to get to know the world around them, thus, building their own conceptualisation and understanding of it. Therefore, teaching needs to provide opportunities for students to get involved in activities that allow for exploration, creativity, and active communication.

A similar claim can be found in the theory of **social constructivism** and it the works of its main proponent Lev Vygotsky (1896–1934). He states that social interaction (between the teacher and the learners or between the learner and his/her peers) is the driving force to learning. He proposed the Zone of proximal development (ZPD) where learners construct new knowledge "through socially mediated interaction" [Brown, 2007: 287]. The Zone of proximal development is the area between what the learner can do independently and what he/she can achieve with the help or guidance from the teacher and/or his/her more

knowledgeable or experienced peers. Vygotsky affirms that interaction provides **scaffolding** – the means through which one person assists another one who cannot perform independently. External scaffolding includes modelling, coaching, providing feedback, while internal scaffolding is when learner is engaged in self-monitoring and reflection.

Jerome Bruner (1915–2016) is an American psychologist and a proponent of the constructivist framework who also stressed the fact that learning is an active process in which learners construct new ideas or concepts by using their current or past knowledge. In this process of constructing new knowledge language plays an important role. The verbal support and the guidance which learners get from their teacher facilitates the acquisition of new knowledge and the improvement of skills. This is done by allowing learners to ask questions, to participate in "[c]hallenging, open-ended investigations in realistic, meaningful contexts … to explore and generate many possibilities, both affirming and contradictory" [Fosnot, 1996: 29 in Weimer, 2002: 13].

Regardless of the theoretical underpinnings that form the basis of the learner-centred teaching paradigm, the main characteristics of learner-centeredness are:

- Learners play an active role in the process of learning, while the teacher is only a guide, an activator, a facilitator of learning;

- Learners are involved in a variety of activities which foster the implementation of problem solving, discovery learning, sharing of ideas, analysis and synthesis of information and/or evidence, drawing conclusions and reflecting upon the results and the findings, project-based learning, simulations etc.;

- Students are autonomous learners responsible for their learning as they choose how to approach a topic, when to do it, at what pace and with which partner;

- Team-based learning and peer collaboration are an essential asset;

- A reflexive approach on behalf of the learner and the teacher is applied with regard to the quality of the teaching and learning process.

It has to be noted that these key characteristics are in line with the human needs which facilitate the growth, social development and the personal well-being – *the need for competence*, *the need for relatedness* and *the need for autonomy (*Ryan and Deci, 2000). These human needs are at the heart of the philosophy of learner-centeredness which is a concept that means different things to different researchers. Being closely linked to humanistic psychology, experiential and constructivist learning, self-directed teaching among others**, learner-centred teaching** for us means the following[1]:

A type of teaching which:

- *takes place in **motivational context** – a context in which learners feel the need to know and are allowed to make choices and exercise some control over the tasks they perform, the ways in which they collaborate, the types of assignments they produce;*
- *provides opportunity for **learner activity** – the selected activities and tasks create conditions for students to be engaged in the development of their knowledge and skills through participation in a variety of learning practices that provide opportunities for exploring different solutions to problems, conducting experiments, critical thinking, systematic analysis etc.;*
- *involves **interaction with others** – individual, peer or group work patterns help to vary the pace of the lesson and its dynamics, boost the team building faculties of learners and promoting student productivity and achievements;*
- *contains a **well-structured knowledge base** that integrates the existing knowledge and personal experience of students into the presentation of the new material so that learners feel eager and motivated to learn since the new material is in line with their own prior life experience;*
- *places a **responsibility on the student for his/her own learning** while the **teacher is viewed as facilitator** who provides assistance to learners by taking into consideration their individual needs, learning styles and pace of learning.*

[1] Based on the characteristics of the deep approach to learning introduced by Rhem (1995)

3. TEACHER COMPETENCIES FOR LEARNER-CENTRED TEACHING

Tsvetelina Harakchiyska

The change of paradigm in the higher education systems in the EU from teacher-centred to student-centred teaching was geared in 2012 as a result of the agenda developed by the Bologna Follow-Up Group meeting which put forward the idea for promoting student-centred learning as a means of increasing the responsibility and autonomy of learners. This shift of paradigm was also a natural follow-up of the introduction of the ECTS system (as part of the Bologna Process) which was based on learning outcomes and the provision of comparable criteria ensuring the quality of education, its transparency and recognition.

Since student-centred learning is a "process of qualitative transformation for students and other learners in a learning environment, aimed at enhancing their autonomy and critical ability through an outcome-based approach" [Bologna Follow-Up Group, 2014: 6], it brought about new challenges to teachers and new expectations on behalf of society and educational stakeholders. Furthermore, it required from teachers to acquire and adopt innovative methods of teaching and it fostered a transformation in the role of teachers and learners – teachers should become facilitators, guides, supporters of the learners who, on the other hand, should be not only active collaborators and participants in the classroom, but also autonomous learners in charge of their own learning.

Considering the fact that the competences and skills of teachers are the most essential component guaranteeing the successful and smooth functioning of any educational approach, special emphasis should be placed on the development of teachers' understanding of the principles of learner-centred teaching and of their knowledge and skills for implementing a rich spectrum of different methods to support it. But apart from that it is also necessary to change teachers' perception of their role in the classroom – from autocratic transmitters of knowledge and controllers of the learning environment to constructive collaborators with the learners. This change of perception is not an easy process and it involves not only the teachers, but also the curricula, the institutions, the educational policies, the support from the university governing bodies and the options for professional development that exist in a given educational context. A good starting point in this respect is the provision of a definition of the desired competences that 21st century university lecturers need to possess in order to create and sustain learner-centred teaching environments.

A useful and concise identification of these competences is provided by two organisations – "Jobs for the Future" and the "Council of Chief State School Officers" in the resource *Educator Competences for Personalized, Learner-centered Teaching* (2015). Although this resource is targeted towards school teachers, it could be used to address the knowledge and skills to be possessed by university lecturers since the domains that it covers – *cognitive,*

intrapersonal, interpersonal and *instructional* – are relevant to the teaching profession as a whole (Figure 1).

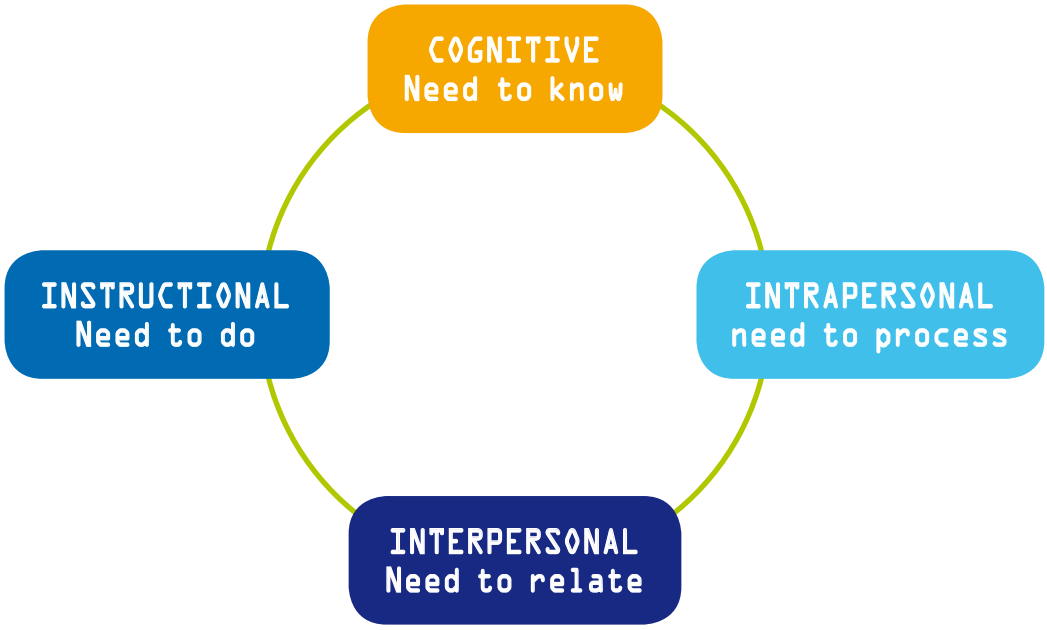


Figure 1. Teacher Competency Domains for Learner-centred Teaching

The Cognitive Dimension (the need to know)

This dimension includes "what teachers need to know in order to create personalized, learner-centered environments. These include both the knowledge of key subject matter content, and human and brain development that is needed in order to foster students' content learning and metacognitive development (e.g., critical thinking, information literacy, reasoning, argumentation, innovation, self-regulation, and learning habits)" [Jobs for the Future and the Council of Chief State School Officers, 2015: 8].

Example: *A university lecturer who is a specialist in physics and who teaches material science knows about the structure and transformation of materials and knows how to teach about them. He also knows which aspects of the course content are particularly difficult to students who have a lower level of knowledge and skills. In order to make the acquisition of the new material he develops his own knowledge about the ways of working with mixed ability classes.*

Successful educators who work effectively and efficiently to create and sustain learner-centred context will:

- **"Utilize in-depth understanding of content and learning progressions to engage learners and lead individual learners toward mastery.**

- **Have knowledge of the sub-skills involved in effective communication and apply it to instructional strategies that develop learners into effective communicators.**
- **Understand and employ techniques for developing students' skills of metacognition, self-regulation, and perseverance".**

[Jobs for the Future and the Council of Chief State School Officers, 2015: 8 – 9]

The Intrapersonal Domain (the need to process)

The "generalized capacity to manage one's behaviour and emotions to achieve one's goals or what internal capacity personalized, learner-centered educators need to process. It comprises the habits of mind, expectations for students, and assumptions about the teaching profession that educators should have" [Jobs for the Future and the Council of Chief State School Officers, 2015: 10].

Example: *A university lecturer has a very shy learner who rarely raises her hand to give an answer to the teacher's questions. She also prefers to work individually and usually remains quiet when she works in a group with her peers. When asked by the lecturer she usually provides correct and acceptable answers. One day she raises her hand to give an answer and is praised by the teacher for that because taking risks is a valued experience in the classroom.*

Successful educators who work effectively and efficiently to create and sustain learner-centred context will:

- **"Convey a dedication to all learners – especially those historically marginalized and/or least served by public higher education – reaching college, career, and civic readiness.**
- **Demonstrate an orientation toward and commitment to a personalized, learner-centered vision for teaching and learning.**
- **Engage in deliberate practices of adapting and modeling persistence and a growth mindset.**
- **Facilitate and prioritize shifting to and maintaining a learner-centered culture.**
- **Demonstrate an orientation toward and commitment to lifelong professional learning.**
- **Analyze evidence to improve personal practices".**

[Jobs for the Future and the Council of Chief State School Officers, 2015: 10–12]

The Interpersonal Domain (the need to relate)

The generalized ability to "express ideas and interpret and respond to messages from others. Encapsulating personalized, learner-centered educators' need to relate, this domain includes the social, personal, and leadership skills to foster beneficial relationships with students,

peers, and the greater community“ [Jobs for the Future and the Council of Chief State School Officers, 2015: 13].

Example: *University lecturers work in close cooperation with key stakeholders to develop courses which are in line with the needs of the labour market. At the same time educationalists study the needs of learners and try to adapt the curricula and course content to suit those needs. To help students make relevant and meaningful learning experiences lecturers include in the design of course content both key stakeholders and students so that the job market players meet face to face and discuss the content of the course and the expected learning outcomes.*

Successful educators who work effectively and efficiently to create and sustain learner-centred context will:

- **“Design, strengthen, and participate in positive learning environments (i.e., school and classroom culture) that support individual and collaborative learning.**
- **Build strong relationships that contribute to individual and collective success.**
- **Contribute to college and career access and success for all learners, particularly those historically marginalized and/or least served by public higher education due to differences in background, demographics, learning style, or culture.**
- **Seek appropriate individual or shared leadership roles to continue professional growth, advancement, and increasing responsibility for student learning and advancement.”**

[Jobs for the Future and the Council of Chief State School Officers, 2015: 12–15]

The Instructional Domain (the need to do)

“The ability of educators to describe what personalized, learner-centered educators **need to do** to bring distinctly learner-centered pedagogical techniques into the classroom. These include creating engaging and relevant curriculum, managing classroom dynamics, and using instructional approaches and methods that build toward and assess **mastery**” [Jobs for the Future and the Council of Chief State School Officers, 2015: 16].

Example: *An e-learning system developed and implemented at a given university allows lecturers to check the results of students on the automatically generated tests after each of the course modules. By doing so the lecturers can give feedback or advice to individual learners during the on-line conferencing done each week. This also allows the teaching staff to get an insight into the level of difficulty of the topics included in the course and to assign additional tasks to those students who need additional support. Students can also work together with their peers on the additional tasks or consult the course tutor if necessary.*

Successful educators who work effectively and efficiently to create and sustain learner-centred context will:

- **"Use a mastery approach to learning.**
- **Use assessment and data as tools for learning.**
- **Customize the learning experience.**
- **Promote student agency and ownership with regard to learning.**
- **Provide opportunities for anytime/anywhere and real-world learning tied to learning objectives and standards.**
- **Develop and facilitate project-based learning experiences.**
- **Use collaborative group work.**
- **Use technology in service of learning".**

[Jobs for the Future and the Council of Chief State School Officers, 2015: 16–19]

The competencies of university teaching staff presented in the current section of the manual are just an outline. More detailed information on the different indicators will be provided in the **Training Modules** where the principles of the 7Cs are discussed (see Handout 6: Teachers' competencies for learner-centred teaching of Module 1).

4. STUDENT-CENTRED PEDAGOGY – BRIEF OVERVIEW OF LEARNER-CENTRED METHODS AND APPROACHES

Tsvetelina Harakchiyska

The following part of the Manual contains brief information about a selection of learner-centered methods which have been selected by the STAR consortium members as an example of the teaching and learning practices that have to be developed in the two partner countries – China and Georgia.

4.1. Problem-based learning (PBL)

Problem-based learning is a learner-centred approach which has its origin at McMaster University in Canada. It was established in 1966 when a group of educationalists – Jim Anderson, Howard Barrows and John Evans gathered together to work on a new medical curriculum. Their idea was to present real-life patient problems in the classroom and to use "stimulated patients for educational purposes" [van Berkel, 2010: 6]. This innovative approach was introduced in the medical faculty of the University of Maastricht (the Netherlands) in 1974 and was further developed in the subsequent years leading to the achievement of two main goals – the acquisition of a specific body of knowledge based on the solution of different problems and the development of critical thinking and problem-solving skills.

Problems are the main elements that account for the acquisition of knowledge and for the active engagement of students in the learning process. They are the linking unit between students' prior knowledge and the new material since they are presented in the context of a realistic scenario in which learners scrutinize and synthesize the relevant information while searching for a solution to the problem. Students work in small groups in which they communicate effectively, share information they have discovered independently and identify the possible outcomes of the scenario.

As PBL learning can be used in a variety of disciplines, the selection of the problems to be implemented in the classroom is bound to the following **criteria** (Duch, Groh and Allen, 2011):

- The problem has to be challenging and motivating to the students.
- The problem, which could be in the form of a puzzle, a case, a query etc., has to involve students in critical thinking and decision making.
- The problem has to be linked to the course curriculum, to the overall objectives of teaching and learning set in a programme and should lead to the upgrading of students' subject specific knowledge and capabilities along with their communication and soft skills.

- The search for a solution of the problem has to involve learners in cooperative learning in which they have to research different concepts and information.
- The initial steps of the problem need to be open-ended so that they attract students' attention raise their curiosity and engage them into finding a solution.

The process of PBL instruction involves a series of stages or steps through which students should go in order to reach a common agreement on how to solve the problem. Despite the fact that there is no agreement among researchers on the number of stages (e.g. Schmidt (1983) suggests that there are 7 stages, while Boud and Feletti (1997) identify only 4), the general flow of PBL covers a cycle of three stages (Figure 2).

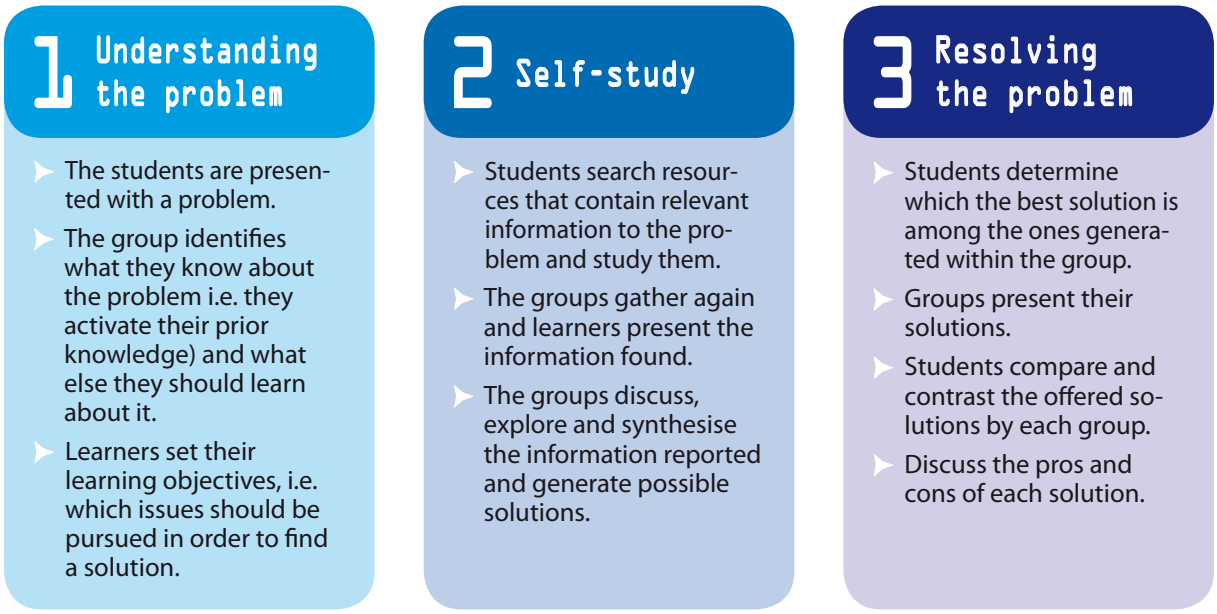


Figure 2. The cycle of PBL instruction

In PBL the **role of the teacher** is that of a **facilitator**. Course tutors have to ensure that all learners are engaged in the process of learning by offering support and by stimulating them to collaborate effectively with their peers while exploring the problem. They do not have to "transmit their knowledge to students' [van Berkel, 2010: 14] but rather involve them to work together, to ask and answer questions, to learn how to search for information individually and to structure and restructure their knowledge.

Students, on the other hand, are expected to participate in **self-regulated learning** which means that they are not only actively involved in the implementation of the different tasks, but that they also control their own learning process. The main reason for this is the fact that in self-regulated learning students set their learning goals, select the relevant learning strategies which are best suited to achieving the objectives, monitor their own progress while searching for additional information on the problem and while analyzing the data available, and evaluate their results. Therefore, it can be said that self-regulated learning is an activity which develops students' metacognitive, motivational and behavioural skills (Zimmerman and Schunk, 2013).

Students are also participants in **collaborative and contextual learning** practices as they interact with each other, share information and accumulate knowledge together while being confronted with a problem presented in a meaningful context.

4.2. Task-based learning (TBL)

Task-based learning is an approach that is associated with language learning. It grows out of the Communicative language teaching as a result of the awareness of educationalists that language teaching should be relevant to students' needs and that it should provide opportunities for language use in the classroom.

The TBL rests on the following theoretical principles:

- Tasks are the units of syllabus organization as they define what outcomes should be achieved through language rather than the language items themselves.
- "Learning will be effective only when it is related to language use and involves relating form and meaning" [Carter and Nunan, 2001:176]

There are numerous definitions of the term task. One of the earliest definitions is that of Long (1985) who gives a rather broad interpretation of what a task is: *"A task is a piece of work undertaken for oneself or for others, freely or for some reward. Thus, examples of tasks include painting a fence, dressing a child, filling out a form, buying a pair of shoes, making an airline reservation, borrowing a library book, etc. In other words, by „task" is meant the hundred and one things people do in everyday life, at work, at play and in between."* [Long, 1985: 89]. This definition does not focus on the pedagogical implications of tasks in the classroom as it is more oriented towards the tasks people do in their everyday lives.

Some of the definitions that are more pedagogically focused and oriented are offered by Richards, Platt and Weber (1986) and Prabhu (1987). While for Richards, Platt and Weber (1986) "[a] task is an activity or action which is carried out as the result of processing or understanding the language" [Richards, Platt and Weber, 1986: 289], for Prahbu (1987) it is "an activity which requires learners to arrive at an outcome from given information through some process of thought, and which allows teachers to control and regulate that process" [Prabhu, 1987: 17]. The definition of the first group of researchers is applicable in cases when, for example, language learners perform an activity as a result of instructions or commands given; and that of Prahbu implies that the attention of learners is focused on the processing of information in order to reach a given objective. A similar claim is expressed in the interpretation of Crookes (1986) which suggests that a tasks is "a piece of work or an activity, usually with a specified objective, undertaken as part of an educational course, at work, or used to elicit data for research" [Crookes, 1986:1].

David Nunan (1989) offers a different way of looking at the term. He says that a task is "a piece of classroom work which involves learners in comprehending, manipulating, producing or interacting in the target language while their attention is principally focused on meaning

rather than on form" [Nunan, 1989: 10]. He stresses the importance of meaning over form (i.e. the grammatical and syntactic structure of an utterance) when language learners interact with each other in the target language in the classroom.

Martin Bygate, Peter Skehan and Merrill Swain (2001) propose that a task is "an activity which requires learners to use language, with emphasis on meaning, to attain an objective" [Bygate, Skehan and Swain, 2001: 11]. This definition is not much different from that suggested by Nunan, but Bygate, Skehan and Swain emphasise that the aim of foreign language teaching is to develop learners' communicative competence in the target language through the use of a variety of tasks.

The characteristic features of tasks are summarized by Rod Ellis (2003). According to him [Ellis, 2013: 9 – 10] each task possesses the following criterial features:

(1) **"A task is a work plan"** – it is the plan for the activities that will be performed by the learner by using a set of preliminary prepared materials by the teacher.
(2) **"A task involves a primary focus on meaning"** – to complete the tasks learners have to use the target language in order to close some information gap. While doing this, students ask questions and give answers focusing on meaning rather than on form. The participants in the communicative situation choose which linguistic and non-linguistic resources to use to complete the task.
(3) **"A task involves real-world processes** of **language use"** – the tasks may represent real-life activities – e.g. asking for and giving directions, comparing and contrasting pictures, planning when and where to meet etc.
(4) **"A task can involve any of the four skills"** – learners can listen to a text and answer questions on it to display their understanding; students may be asked to write a different ending of the text read or they can participate in an oral production activity.
(5) **"A task engages cognitive processes"** – to complete the task learners use their cognitive processes – they list, order, sort, classify, analyse and/or summarise the available information. These processes influence what type of language learners will use while working on the task but the choice of the forms depends on the learner itself.
(6) **"A task has a clearly defined communicative outcome"** – this communicative outcome may be non-linguistic but the achievement of the outcome engages learners in meaningful interaction.

These characteristics determine a more thorough and detailed definition of a task presented by Rod Ellis (2003), which will be accepted as a working definition of the term in this Manual:

> *A task is a workplan that requires learners to process language pragmatically in order to achieve an outcome that can be evaluated in terms of whether the correct or appropriate propositional content has been conveyed. To this end, it requires them to give primary attention to meaning and to make use of their*

own linguistic resources, although the design of the task may predispose them to choose particular forms. A task is intended to result in language use that bears a resemblance, direct or indirect, to the way language is used in the real world. Like other language activities, a task can engage productive or receptive, and oral or written skills, and also various cognitive processes.

[Ellis, 2003: 16]

TBL is popularized by Prabhu while working in Bangalore, India on the *Bangalore/Madras Communication Project*. He focused his research on the input learners receive and on the cognitive process that they have to use in order to complete the language tasks. As a result of his findings Prabhu (1987) offers a classification of tasks based on the *information gap principle* – students work in pairs and in the pair one of the learners possesses part of the information so in order to "bridge the gap" he/she has to interact with the other learner to get the missing information. The three types of gap tasks that can be used in the language classroom are:

- *information gap* – e.g. students transfer information from a text into a table or make dialogues in which they fill in the necessary information in a table;
- *reasoning gap* – learners have to deduce something on the basis of the given information (e.g. the timetable of a doctor on the basis of the information about the doctor's duties taken from his patients or the solving of a problem);
- *opinion gap* – e.g. giving opinion on an issue, offering a different ending of a story etc.

Jane Willis (1996) offers a more consistent classification on task categories:

- **listing** (of things, people, actions, processes, etc.) – this is achieved through the reading of a text, brainstorming, use of reference materials etc.;
- **ordering and sorting** (e.g. sequencing, ranking, classifying, etc.) – students have to make decisions about the principles for ordering and sorting the information and to justify these decisions;
- **comparing and contrasting** (e.g. pictures, diagrammes, texts etc.) – students find similarities and differences in the two materials;
- **problem solving** (e.g. logic problems, language puzzles, advice-column letters, etc.) – the completion of these tasks involves logical thinking, ability to analyse information, to make deductions and formulate hypotheses;
- **sharing personal experience** (e.g. describing your house, the first day at school, listening and reacting to a personal story, etc.) – a student produces an oral text and his/her partner reacts to it by comparing it to his/her own experience;
- **creative tasks and projects** (e.g. creative writing, carrying out and reporting on a survey, etc.).

The TBL attracted researchers' attention as it raised a lot of questions concerning traditional language teaching methodology. In traditional language teaching teachers use the following three stages known as the **PPP** (**P**resentation, **P**ractice, and **P**roduction) and they also use tasks as a follow-up to a series of structure/function or vocabulary based lessons.

In task-based learning, this traditional methodology is revised. As Jane Willis (1996) suggests a language lesson should have the following three stages:

1. *Pre-task* – Introduction to the topic and task.
2. *Task cycle* – Task preparation and task realization.
3. *Post-task* – Analysis and practice.

In the ***Pre-task stage*** the teacher presents what will be expected from learners in the task phase. S/he explores the topic with the class and highlights useful phrases, vocabulary items or grammar structures. It is up to the teacher to decide how much language work is necessary to provide at this stage. This stage includes two more stages:

The ***Task preparation stage*** is separated from the *Pre-task stage* as it helps the teacher to further prepare language learners for the task. For example if in the first stage learners were involved in brainstorming words on a certain topic, in this stage they could be involved in expressing their feelings or attitude to it or prepare for a debate, or prepare a report on the topic.

In the *Task cycle* the students produce / perform / present their tasks – e.g. producing a poster, performing role-play, giving a presentation, etc. Usually in this stage the role of the teacher is that of an observer or counselor.

In the ***Post-task stage*** there are some options:

a. Language focus – while learners carry out the task, the teacher may take down notes on the language: *Could any other vocabulary be used? Were there any structures that caused misunderstanding? Could other language structures be used in order to make language more persuasive?* etc. At the end of the task students may wish to examine the task again and gain better understanding of the language used.

b. Feedback and evaluation – the teacher might wish to discuss the success of the task realization and suggestions for its improvement. Learners might wish to discuss how effectively they have worked together. Information from the evaluation is useful for the teacher when planning other tasks.

c. Reflection upon task realization – Learners might discuss whether they have enjoyed doing the task.

d. Language reflection – provides opportunities for further language input or practice.

e. Peer suggestions – Learners could ask the teacher for some clarification or explanation of language structures used in the task.

One major advantage of the TBL approach is that it is learner-centered and allows for meaningful communication in the classroom. However, research on SLA shows that language learning is a process that is not linear – it is a developmental process that cannot be consciously controlled. As Ronald Carter and David Nunan (2001) point the TBL aims to involve the natural process of language learning and provide language-focused activities based on consciousness-raising, the challenges that it has to face are related to the design of tasks that would focus learners' attention on language form. Moreover, some educationalists claim that TBL is not effective for elementary and beginning level students. Nevertheless, it has practical implications that cannot be ignored.

4.3. Discovery learning

Discovery learning is an active learning approach that is based on the constructivist theory. It was originally proposed by Jerome Bruner (1915–2016) while he worked with the National Science Foundation in the USA in the 1960s and 1970s on the design of a science curriculum. Bruner believed that real learning took place only when "students become problem solvers" [Conclin and Stix, 2014: 179} since they would remember better the concepts, models or new knowledge they had discovered themselves. Therefore, according to him learners need to rely on their prior knowledge to discover new information about the surrounding world through the manipulation of objects, exploration of the environment and by conducting different experiments.

Interaction between students and the tutor is an essential element of discovery learning. The teacher provides the materials and the tasks which involve learners in asking questions and searching for answers, in deriving principles, in solving problems while discovering new knowledge. The learning materials, which have to be used, need to provoke "independent information processing that enable the learner to organize knowledge structures through generalization (by constructing schemata) … and [to have an effect on the] … transition from extrinsic to intrinsic motivation" [Seel, 2011: 490].

A key concept that is proposed by Bruner (1978) and that is related to discovery learning is ***scaffolding***. Similarly to the scaffolding of a bulding, the teacher provdies support to the learners when needed so that they "can concentrate on the difficult skill … [they are] in the process of acquiring" [Bruner, 1978 in Dörner, Göbel, Kickmeier-Rust, Masuch and Zweig, 2016: 194]. The teacher's support is in the form of hints and/or prompts but he/she does not give students ready answers or instructions on how to find the answers. Due to the scaffolding some researchers (Tobin and Fraser, 1990; Champagne and Bunce, 1991 among

others) make a difference between *discovery learning* and *guided discovery learning*. In fact the exploration of the similarities and differences in the two types of learning (Weimer, 2003; Hogan, Natasi and Presley, 1999) pinpoint that *guided discovery* is more productive than *pure discovery* since students stay more focused on the tasks under the teacher's scafollding and work more consistently to solve the respective problem.

The essential phases of **guided discovery learning** are not much different from the phases of PBL (Figure 3).

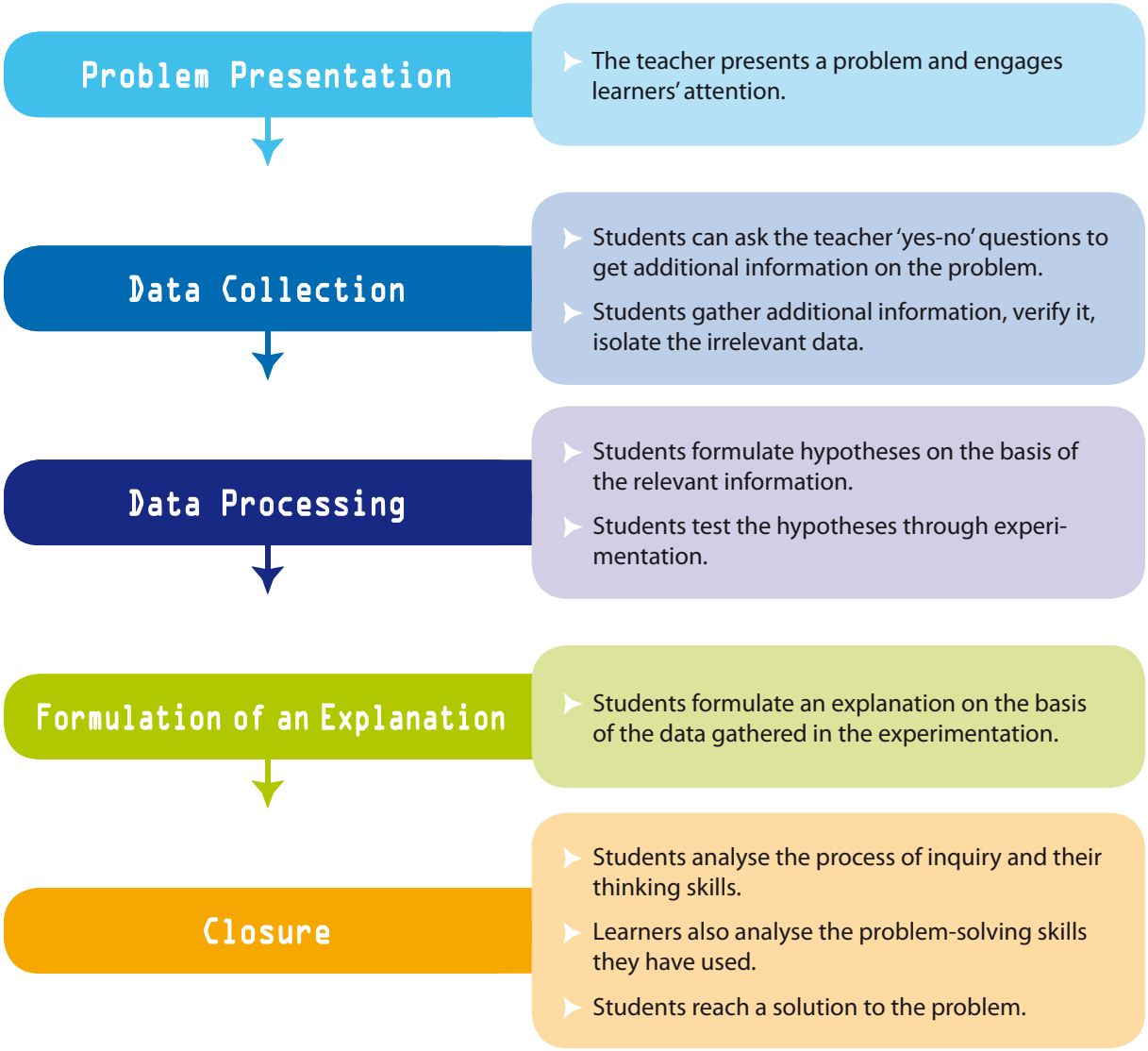


Figure 3. The cycle of guided discovery learning

The reason for this resemblance is that discovery learning "is often used as an 'umbrella term' to refer to teaching and learning methods such as inquiry based, problem-solving … method[s] of instruction" [Phillips, 2014: 236].

Discovery learning is an essential asset of the learner-centred methodology since it facilitates the development of students' **skills** to identify a problem, search for relevant information, formulate hypotheses and develop solution strategies which are justified and based on certain evidence. Since discovery learning is generally a collaborative process, students also develop their communication skills and skills for working in a team. An important aspect of discovery learning is the development of learners' **attitudes** such as curiosity, tolerance to ambiguity, open mindedness, patience, awareness of and appreciation of alternative viewpoints.

When implemented in the classroom discovery learning contributes to the development of independent learners who discover knowledge by working together while solving problems. The teacher is just a facilitator who is always ready to give guidance to the students.

4.4. Project-based learning

Project-based learning is an instructional approach in which learners confront "real-world issues and problems that they find meaningful, determine how to address them, and then act in a collaborative fashion to create problem solutions" [Bender, 2012; 1]. The authentic problem, challenge or question, which students investigate, is closely linked to the curriculum and to the content of the course or of a specific lesson.

Originally project-based learning was part of science or mathematics lessons, but in the recent years it has found its place in many areas across the curriculum – informatics and information technology courses, language teaching and learning, ecology, nursing, architecture etc. This is due to the fact that project-based learning places an emphasis on the active role of students in the learning process. Students are project creators and problem solvers who consider and evaluate multiple options until they reach a solution, and who rely on their creativity, ability to work collectively and their skills to defend their choices and arguments.

Project-based learning is often related to the concept of **authentic learning** in which learners are engaged in solving real-world problems. Steve Revington (2016) offers the following definition of authentic learning: "a real life learning … that encourages students to create a tangible, useful product to be shared with their world" [Revington, 2016 in Chang, Huang and Kinshuk, 2017: 5]. This pedagogical approach engages students in "learning by doing" as they are in engaged in meaningful activities in which they raise questions, think critically, perform scientific experiments and observations and do some research. The benefits of authentic learning include:

- increased student motivation;
- better learning opportunities;
- improved 21st century skills of learners among which critical thinking, creativity, imagination and curiosity, leadership, problem solving, self-discipline, teamwork etc.;
- integrating theories with learning and facilitating the acquisition of a variety of concepts.

Since **project-based learning** is an instructional approach in which students plan, design, implement and evaluate a project, it involves the essential elements of project design (Figure 4).

The main characteristics of these elements are presented by Larmer, Mergendoller and Boss (2015):

1) **Stage 1: Challenging problem or question** – a meaningful problem or a question is set at the attention of learners who have to find a solution or give an answer.
2) **Stage 2: Sustained inquiry** – students compile information that is necessary for them to find a solution to the problem or answer the question. They find relevant resources and utilize the information found.

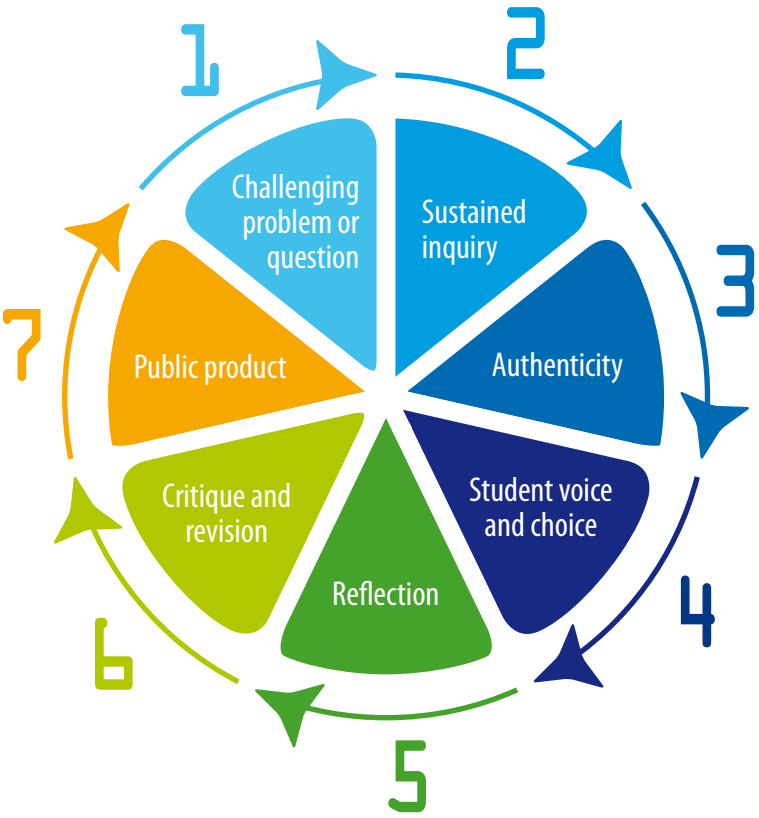


Figure 4. Essential design elements of project-based learning

3) **Stage 3**: **Authenticity** – the project is linked to a real-world problems which people could face in their everyday lives – e.g. a community council which has to take a decision about which factory in the region does most harm to the environment; a construction company which has to design a solid bridge over a river in a seismologic region etc. Some of the challenges present to students can be relevant to issues in their personal lives or concerns.
4) **Stage 4: Student voice and choice** – in order to plan and complete the project successfully, students have to make some choices regarding the design and implementation of their project (e.g. the questions to ask, the resources they select, the roles of the different members of the team and their responsibilities, the outcomes that will be produced).
5) **Stage 5: Reflection** – The students and their teacher can reflect on some of the aspects of the project while working on it or after the project end. The reflection may include the use of different instruments (e.g. learning portfolios, assessment sheets, discussions, presentations of the outputs and the process of creating them).
6) **Stage 6: Critique and revision** – students give and receive constructive feedback to the work of their peers; the feedback is used by learners to improve their project planning skills, their abilities to select and use a variety of learning materials, their skills for working in a team and their presentation skills;
7) **Stage 7: Public product** – students present their project outputs to their classmates.

These seven stages are directly linked to the key knowledge and skills of students because the purpose of project based instruction is to facilitate the development of active learners who are equipped with the capacities to be autonomous learners who are responsible for their own learning.

4.5. Learning contracts

A **learning contract** is a document which has the form of a written agreement between a student and a teacher. It specifies the particular activities to be undertaken by the learner for the achievement of specific goals. The use of learning contracts derives from the theoretical views of Malcolm Shepherd Knowles (1913–1997) about the education and training of adults. According to him adult learners possess the following characteristics:

1) **The need to know** – adult learners need to know why they have to learn something before they learn it. The awareness of the benefits of learning increases the motivation of learners as they will consciously invest time and efforts into it.
2) **The learners' self-concept** – Adult learners, who are mature individuals, perceive themselves as responsible people who take decisions and who self-direct their lives.

3) **The role of the learners' experiences** – learners can utilize the accumulated previous experience in the learning process. The fact that adult learners have lived longer than their younger counterparts allows them to have richer knowledge and skills in a variety of fields which they have gained as a result of the encounters in which they have participated or the problem solving activities in which they have been involved.
4) **Readiness of learner** – Adult learners have a clear idea of what they want to achieve in their lives, therefore, their readiness to learn in intertwined with their personal developmental goals.
5) **Orientation to learning** – The acquisition of subject matter is an essential aspect of learning. However, adult learners are interested in the practical implications of the subject matter, i.e. their orientation shifts from subject-centredness to learning-experience centredness.
6) **Motivation to learn** – Adult learners are motivated to learn because as "a person matures the motivation to learn is internal" [Knowles, 1984: 12].

The main proposition based on these characteristics is that students are autonomous learners who are responsible for their personal development and for the management of their own knowledge in response to their needs and interests. This is actually what makes **learning contracts** suitable to all programmes and courses. The main benefit of the application of this method in the classroom is the flexibility which it gives to the learners because it allows them to negotiate with the teacher the structure of the assignments, the quantity and the quality of the work to be done, the evaluation criteria to be used. The focus, which is placed on the process of negotiation, is the reason why learning contracts are also called *negotiated learning agreements* [Anderson, Boud and Sampson, 2014: 3].

According to Anderson, Boud and Sampson (2014) the negotiated learning agreements start with a discussion of the roles, responsibilities and expectations of the student and the teacher. Traditionally learners are given an active role as they have to complete the specified activities. The role of the teacher is that of an advisor, a guide who gives support when necessary, who monitors students and who evaluates whether the initially set goals are met and the quality of the produced outcomes corresponds to the assessment criteria.

The design and the implementation of a learning contract passes through four stages:

- *Preparation* – in this stage the learner has to think about what he/she wants to learn or achieve during a specific course module, the whole course, a placement etc. He/She has to prepare his/her own learning objectives which have to be linked to the stated learning outcomes of the module, course, placement or specific learning event. Self-assessment may have a key role in this respect as it could give an objective feedback on the level of knowledge and skills that the students possesses and it could be used as means of deciding on the further development necessary.

- *Negotiation* – the processes in which the student and the teacher reach an agreement on the content of the learning contract and the evaluation of the knowledge, skills and competences, as well as on the learning process and final products.
- *Support* – once the learning contract is made operational, the teacher provides support to the learner with resources, advice or guidance.
- *Assessment* – the evaluation of the learning contract consisting of two parts. The teacher gives grades/marks for task completition and also the feedback on work habits and overall students´ approach to given tasks. Student, on the other hand, evaluates his/her work, since the self-evaluation is a neccessary part of the evaluation process.

It is of utmost importance that the learner and the teacher work cooperatively while negotiating the terms of the learning agreement. The presence of mutual respect is also a necessary condition for the successful term setting and completion of activities. Giving the learner the freedom to construct his/her learning contract while negotiating the terms and conditions with the teacher adds value to the learning contract as the learner feels an ownership to it and will be motivated to complete it successfully.

The **key characteristics** of a successful learning contract are summarized in Figure 5.

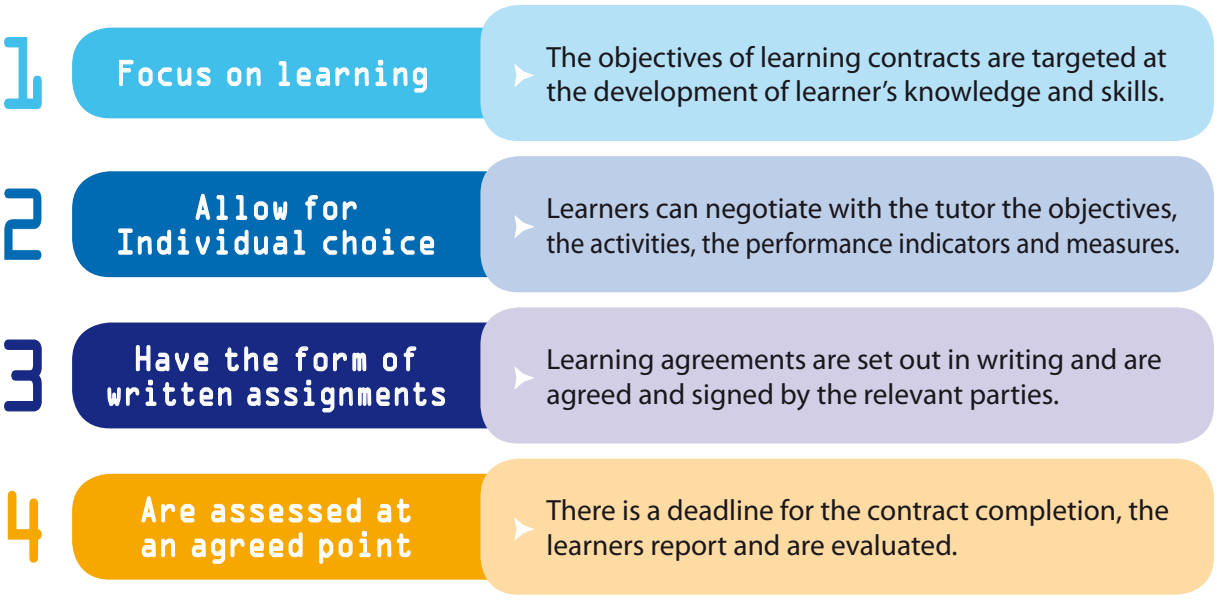


Figure 5. Key characteristics of a learning contract[2]

Tough learning contracts vary in terms of their layout and format, it is useful to provide some structural parameters. Typically a **learning contract** has the following sections:

- **Purpose** – a statement of the learner wants to achieve. This is generally the objective which the learner sets to himself/herself. The objective has to correspond to the

[2] The key characteristics are adapted from Boak (1998), p. 30

learners' needs but it also has to correspond to the aims and scope of the degree programme or course. It could be also relevant to a workplace context when the learning gains some hands-on experience at a concrete organization.

- **Strategies and resources (required to meet the objectives)** – these are the materials or resources that the learner needs to collect and study, the people who he/she has to meet, the research that has to be conducted, the places that he/she has to visit etc.
- **Action plan** – the activities and the deadlines for meeting the objectives.
- **Evidence** (i.e. what will be produced) – the product (e.g. a report, a survey, an essay etc.) of the performed activities in order to reach the objectives or a demonstration of the skills obtained.
- **Evaluation criteria** – the criteria which will be used for the assessment of the quality of the work done.
- **Completion date.**

These sections are not necessarily a must but what is expected is that the learning contract is signed by the student and the course tutor. Thus, it really has the form of a contract and binds the two sides in doing their best to ensure that the learning process and its supervision will be successful.

5. METHODOLOGICAL SUPPORT

Tsvetelina Harakchiyska

5.1. Overall organisation

The methodological support section of the manual comprises of three sections grouped under the following headings:

- Theoretical background of learner-centred teaching.
- Hands-on experience with selected learner-centred teaching approaches.
- Assessment procedures in the learner-centred environments.

5.2. Target audience

The training content is aimed at university lecturers who are willing to develop professionally and integrate learner-centred teaching into their classrooms.

5.3. Organisation of a module

The modules comprise of several clearly set out sections – ***Aims, Outcomes*** *and* ***Rationale.*** Each module's aims are achieved through a number of ***Tasks.*** The tasks are logically and systematically organised and contain a *Rationale*, the *Materials/Resources* needed, the *Preparation* on behalf of the trainer*,* a *Time frame* (for the completion of the task which could be adapted depending on the needs of the trainees) and a *Procedure.* The *Procedure* is targeted at the trainers as it identifies the steps which have to be followed by the trainer within a specific task. There is a list of *Expected answers* and *Sample answers* supplementing the Procedure to facilitate the work of the trainer.

5.4. The Handouts

The worksheets are a collection of resources which supplement each module. They are included in the *Materials / Resources* section and provide the participants with the opportunity to gain further knowledge of the essential features of learner-centred instruction, of the competencies of teachers and students for successful participation in the student-centred classroom, of the learner-centred methods discussed and of the ways in which these methods could be implemented in different teaching and learning contexts. As the handouts could be used as photocopiable materials they are provided after the descriptions of the training sessions of each module. The trainer can easily orient himself / herself which handout supplements which session as below the title of each handout there is a reference to the module and the tasks in which it is used (e.g. *Handout 1 – How we learn?, Module 1, Session 1*).

6. TRAINING MODULES

Tsvetelina Harakchiyska

6.1. Module 1 – Theoretical background of learner-centred teaching

Rationale:

This module is created to encapsulate the main ideas which constitute the paradigm of learner-centred instruction. It develops participants‘ understanding of learner-centred teaching and learning and of the benefits of introducing it in the classroom. The module aims to explore the roles of learners and teachers in learner-centred environments and to outline the key competences and skills that they need to possess in order to participate efficiently and effectively into the teaching and learning process that puts the learner at its hear. The participants will engage collaboratively in active learning practices which allow for reflection on their teaching style, knowledge, competences and classroom practices.

Aims of the module:

- to develop awareness of the importance of the change of paradigms – from teacher-centred to student-centred learning;
- to explore ideas on the nature and key characteristics of learner-centred teaching;
- to provide opportunities for sharing ideas and learning about learner-centred teaching;
- to sensitize the participants to the competences of students and teachers in a learner-centred classroom;
- to get acquainted with the learning to learn strategies and to discuss their integration in the classroom;
- to establish a shared understanding of lesson planning for learner-centred instruction.

Outcomes:

By the end of the module participants will have:

- explored reasons for introducing learner-centred teaching at the university classroom;
- reflected on the benefits of learner-centred teaching;
- reflected on the difficulties of integrating learner-centred teaching in their own educational context;
- analysed their current approach of teaching and pinpointed some possible areas of change.

TASK ONE: How do we learn?

Aims:

- to get participants reflect on their own experience as learners;
- to sensitise participants to the ways in which learning happens;
- to lead participants to think about the principles of learning.

Materials / Resources:

Handout 1 – How we learn

Video 1 – How we learn

Preparation:

Photocopies of Handout 1 (one for each participant)

Time: 20 minutes

Procedure:

1. Divide the participants in pairs. Ask them to think about something they are really good at – e.g. cooking, playing football, knitting etc. Allow some thinking time if necessary and then invite them to share with the group members the activity / thing they are good at.
2. Ask the participants to brainstorm *how* they got good at this. You can write some helping questions. For instance:
    - *Did you take a special course?*
    - *Did you learn by yourself by reading books, watching videos, observing someone do this, or by your own mistakes by repeating this over and over again?*
    - *Did you get practical / hands-on experience by asking a friend to help / show you how to do this?*

The participants have to exchange information about the ways in which they learned doing the specific activity.

3. Ask the participants to briefly report back in plenary. Use the discussion and ask participants to identify the most useful way of learning according to them.

4. Lead the participants to the following sayings and proverbs:

    - *One must learn by doing the thing; for though you think you know it, you have no certainty until you try* (Sophocles).
    - *What we have to learn to do, we learn by doing* (Aristotle).
    - *You cannot teach a man anything: you can only help him to find it within himself* (Galileo).
    - *Tell me and I will forget.*

Show me and I will remember.
Involve me and I will understand.
Step back and I will act (old Chinese proverb).

Invite comments on the truth of these proverbs in terms of the ways of learning identified by the participants earlier.

5. Give the participants Handout 1 and ask them to fill it in individually. When ready allow the participants to briefly compare answers.
6. Ask the participants to watch the video to check their answers.

(https://www.youtube.com/watch?v=ArCLe6w-1nM&feature=youtu.be)

Expected answers:

1. SA or A;
2. SA or A;
3. D or SD;
4. SA or A;
5. D or SD;
6. SA or A;
7. SA or A;
8. SA or A;
9. SA or A;
10. SA or A.

7. Conclude by emphasising that the ideas discussed are by no means exhaustive on the topic and establish a link with the next session which focuses on learning theories.

Handout 1: How we learn?

Module 1, Task 1

How far do you agree with the following statements? Tick (✓) the respective answer (SA = strongly agree; A = agree; NS = not sure; D = disagree; SD = strongly disagree)

	STATEMENT	SA	A	NS	D	SD
1	Learning is a process of encoding, storing and retrieval of information from the long-term memory.					
2	Learning involves the whole personality – senses, feelings, intuition, beliefs, values, motivation and the personal goals of the learner.					
3	The newly acquired knowledge does not have to be linked to the skills, understandings or previous experience learners already possess.					
4	In order to store the new knowledge into the long term memory, learners need to be able to do something with it so that their brains retain the learned or experienced acts and so that learners take ownership of it.					
5	Learners learn best when they participate in traditional lecture courses in which the teacher presents the new information, gives definitions, demonstrates, explains and provides examples.					
6	The more effective the learning is, the more often the new information stored in the longterm memory is retrieved and rehearsed.					
7	Learning should be relevant to the learners and situated within a meaningful context.					
8	When possible learners should be allowed to take part in the planning of their learning goals at the start of the course and selecting the units of study.					
9	The learning opportunities provided by the teacher need to be focused on his/her own strengths as a teacher rather than on his/her students' strengths.					
10	Learners learn best when they interact with others.					

TASK TWO: What is learner-centred teaching?

Aims:

- To familiarise participants with three different learning theories – behaviourist, cognitivist and constructivist.
- To identify the key characteristics of learner-centred instruction through the comparison and contrast of the three learning theories.

Materials / Resources:

Handout 2 – Learning theories

Handout 3 – Teacher-centred vs. Learner-centred paradigms

Preparation:

Photocopies of Handout 2 (one for each participant in the respective groups)

Photocopies of Handout 3 (one for each participant)

Time: 40 minutes

Procedure:

1. Divide participants in groups of 4. Give each group a copy of Handout 2 (e.g. the participants in each group receive the relevant copies for the group). Ask them to read the text individually and to fill in the table with the information available.

2. When ready, invite the participants to compare briefly their answers within the group.

3. Ask the participants to form new groups of 3. In each group there should be a representative of Group A, Group B and Group C. Within the new groups the participants have to exchange information about the other learning theories and fill in the missing information in their tables. Monitor the groups' progress and if necessary provide assistance.

4. Ask for feedback in a plenary and present an example of how the table could be filled in.

   For example:

	Behaviourist	**Cognitivist**	**Constructivist**	**Social constructivist**
View on learning	Learning is based on a stimulus and response	Learning is based on the transmission of knowledge and the use of learning strategies	Learning is based on personal discovery and experimentation	Learning is a result of social interaction

Type of learning	Memorising, rote learning Responding to stimuli	Memorising and application of rules	Problem-solving, discovery learning, performing investigations	Collaborative learning and problem-solving
Instructional strategies	The teacher presents the new material and requires correct feedback from the learners	The teacher transfers knowledge to the students by "stepping on" their previous experience. He/she plans the lesson with regard to the cognitive learning strategies to be used by learners	The teacher provides opportunities for active and self-regulated learning	The teacher facilitates the learning process through the provision of scaffolds
Key concepts	Reinforcement	Reproduction and elaboration	Personal discovery Active learning	Scaffolding Zone of proximal development

Focus participants' attention to the fact that the behaviourist theory is a theory that could be used in teacher-centred classrooms, while the two version of the constructivist theory – cognitivist constructivism and social constructivism lay the foundations of learner-centred teaching.

5. Invite the groups to think of a definition of learner-centered teaching on the basis of the information provided in the texts for reading and summarised in the tables. If they find the task difficult, give an example of how learner-centred teaching could be defined:

Learner-centred teaching *– "a system of instruction based on student's individual choices, interests, needs, abilities, learning styles and educational goals – encourages students to construct meaning and understanding at all stages of the learning process."* [Yilmas, 2009: 23 in Yilmaz, K. (2009). "Democracy through learner-centered education: a Turkish perspective". *Journal Review of Education*, 55 (1), 21–37)].

Learner-centred teaching *"includes awareness of the unique cognitive structures and understandings that learners bring into [the classroom and the teacher has to] make efforts to gain an understanding of the students' prerequisite knowledge, including any misconceptions that the learner starts with in their construction of new knowledge."* [Andersen, 2008: 74 in Andersen, T. (2008). *The Theory and Practice of Online Learning*. Athabasca University Press].

Learner-centred teaching *is a type of instruction in which "learners are engaged in complex, hands-on activities that allow them to develop their understanding of the world around them ... [through] engagement in authentic research, communicating with experts, or development of understanding."* [Januszewski, 2008: 401 in Januszewski, A. (2008). *Educational Technology: a Definition with Commentary.* ABC-CLIO].

Learner-centred teaching *– an approach to teaching that focuses on the learners and their development rather than on the transmission of content; it addresses the balance of power in teaching and learning, moves toward learners actively constructing their own knowledge, and puts the responsibility for learning on the learners* [https://www.igi-global.com/dictionary/learner-centered-teaching/40896 – Retrieved 20/01/2018]

6. Ask participants to look at the two figures which illustrate teacher-centred and student-centred learning.

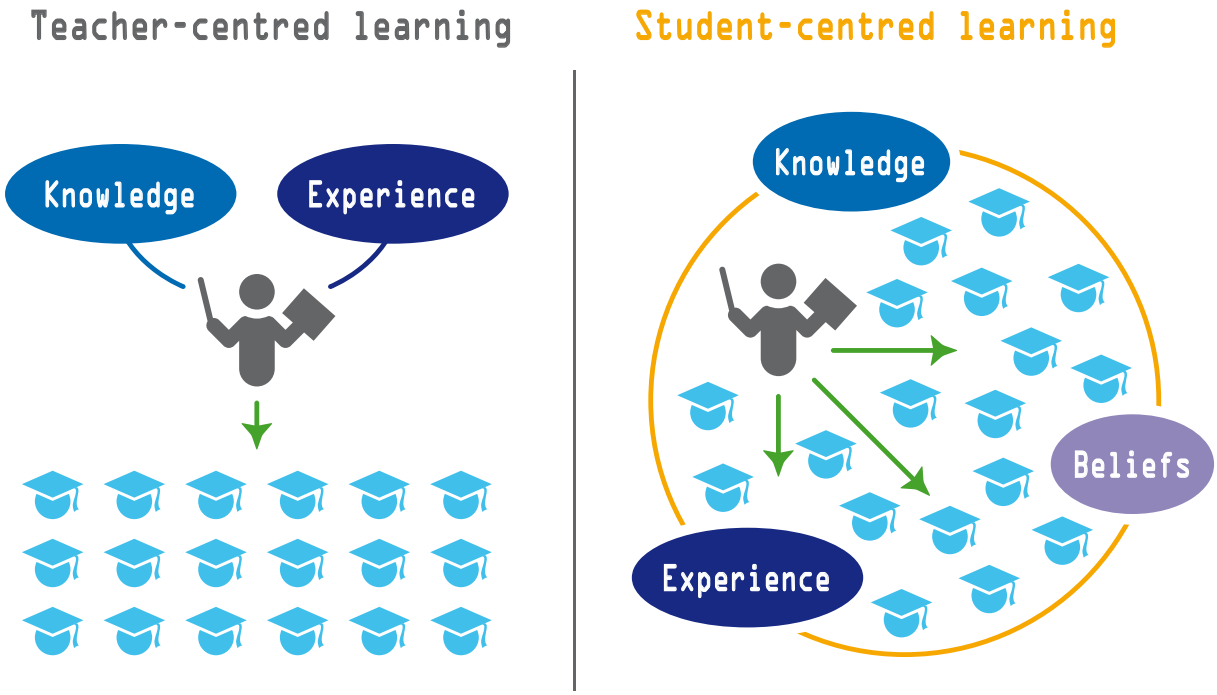


Figure 6. Illustrate teacher-centred and student-centred learning

Elicit from teachers the main difference in the role of the teacher in the two learning environments. Emphasize that in a teacher-centred classroom the teacher is the director of learning and the main source of knowledge and experience for the students. Teaching is done in the form of lecture, repetition and practice of skills and constructive feedback. While in a learner-centred classroom, the teacher is a guide, a facilitator, rather than a director. The teacher focuses on the needs of students and provides opportunities for learning through problem-solving, decision-making, analysis and synthesis of information.

7. Give to participants Handout 3. Invite them to fill in the missing information. First they work individually, but when ready participants compare their ideas with a partner.

8. Summarise the table in a plenary and establish a link with the next session which explores the skills and competences that we need to develop in students and in teachers.

Sample answers:

	Teacher-centred paradigm	Learner-centred paradigm
View on knowledge	Knowledge is transmitted from the teacher to the students.	Students construct knowledge by gathering information, analysing and integrating it. Students use their inquiry skills, interaction skills, problem-solving skills and critical thinking skills while dealing with the new information.
Students' role	Students are passive receivers of information.	Students are actively involved in the construction of knowledge.
Teacher's role	The teacher is the main source of knowledge and the main evaluator of students' knowledge.	The teacher is a guide, a facilitator, a helper to students' learning.
How learning takes place?	Teaching is done by lecturing and direct instruction. Students acquire knowledge which will be used in a context outside the classroom.	Students exchange knowledge through interaction with each other with the teacher and in the process of communication they try to solve problems or other emergent issues in real-life contexts.
Relations between teaching and assessment	Teaching and assessment are separate activities	Teaching and assessment are intertwined
Purpose assessment	Assessment results are used to monitor learning and learners' progress	Assessment results are used to diagnose learning and to promote it.
Assessment instruments	Objectively scored tests	Projects, research works and papers, portfolios, performances, etc.
Attitude towards errors	Errors are not tolerated. Emphasis is placed on students giving right answers.	Errors are tolerated and are viewed as an essential part of learning Learning from errors is important
Links with other disciplines	The focus in one single discipline	The focus is on interdisciplinary links
Learning culture	Competitive and individualistic	Cooperative, collaborative, supportive learning
View on who is a learner in the classroom	Only students are viewed as learners	The teacher and students are both learners who learn together

Handout 2: What is learner-centred teaching?

Module 1, Task 2

GROUP A – Read the text and fill in the table with the available information.

Behaviourist theory was the leading psychological theory at the beginning of the 20th century. Behaviourism equates learning with changes in either the form or frequency of observable performance. Learning is accomplished when a proper response is demonstrated following the presentation of a specific environmental stimulus. For example, when presented with a math flashcard showing the equation "2 + 4 = ?" the learner replies with the answer of "6." The equation is the stimulus and the proper answer is the associated response. The key elements are the stimulus, the response, and the association between the two. Of primary concern is how the association between the stimulus and response is made, strengthened, and maintained.

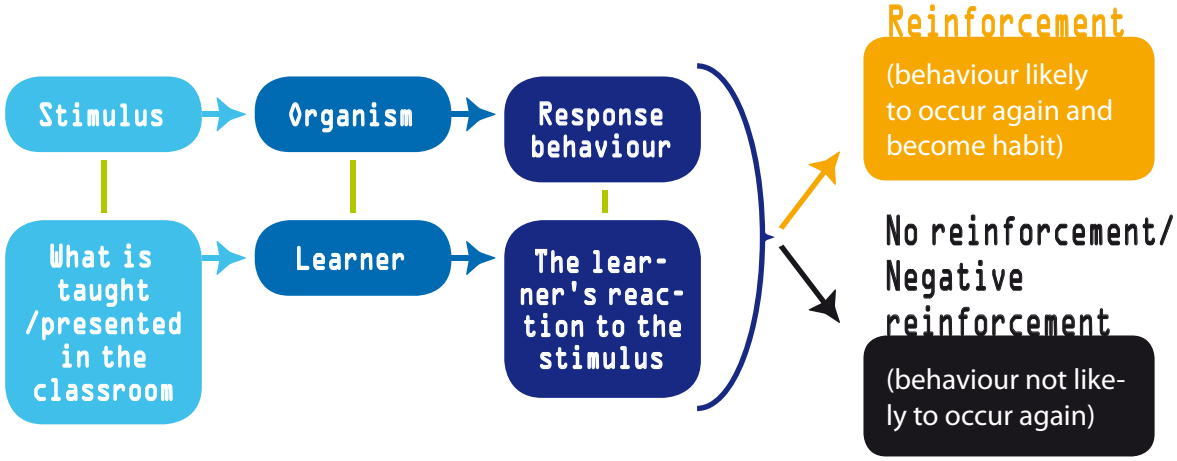


Figure 1. Behaviourist theory

The goal of instruction for the behaviourist is to elicit the desired response from the learner who is presented with a target stimulus. To accomplish this, the learner must know how to execute the proper response, as well as the conditions under which that response should be made. Therefore, instruction is structured around the presentation of the target stimulus and the provision of opportunities for the learner to practice making the proper response. To facilitate the linking of stimulus-response pairs, instruction frequently uses cues (to initially prompt the delivery of the response) and reinforcement (to strengthen correct responding in the presence of the target stimulus).

Behavioural theories imply that the job of the teacher/designer is to:

(1) determine which cues can elicit the desired responses;

(2) arrange practice situations in which prompts are paired with the target stimuli that initially have no eliciting power but which will be expected to elicit the responses in the "natural" (performance) setting; and

(3) arrange environmental conditions so that students can make the correct responses in the presence of those target stimuli and receive reinforcement for those responses.

From Ertmer, P. A. and T. J. Newby. (2013). "Behaviorism, Cognitivism, Constructivism: Comparing Critical Features From an Instructional Design Perspective". *Performance Improvement Quarterly*, 26 (2), pp. 48–49

	Behaviourist	**Cognitivist**	**Constructivist**	**Social constructivist**
View on learning		Learning is based on the transmission of knowledge and the use of learning strategies		
Type of learning				Collaborative learning and problem-solving
Instructional strategies			The teacher provides opportunities for active and self-regulated learning	
Key concepts				

Handout 2: What is learner-centred teaching?

Module 1, Task 2

GROUP B – Read the text and fill in the table with the available information.

In the late 1950s, the learning theory began to make a shift away from the use of behavioural models to an approach that relied on learning theories and models from the cognitive sciences. Psychologists and educators began to de-emphasize a concern with overt, observable behaviour and stressed instead more complex cognitive processes such as thinking, problem solving, language, concept formation and information processing.

Cognitive theories stress the acquisition of knowledge and internal mental structures. Learning is equated with discrete changes between states of knowledge rather than with changes in the probability of response. Cognitive theories focus on the conceptualization of students' learning processes and address the issues of how information is received, organized, stored, and retrieved by the mind. Learning is concerned not so much with what learners do but with what they know and how they come to acquire it. Knowledge acquisition is described as a mental activity that entails internal coding and structuring by the learner. The learner is viewed as a very active participant in the learning process.

The cognitive approach focuses on the mental activities of the learner that lead up to a response and acknowledges the processes of mental planning, goal-setting, and organizational strategies. … Learners attend to, code, transform, rehearse, store and retrieve information. Learners' thoughts, beliefs, attitudes, and values are also considered to be influential in the learning process. The real focus of the cognitive approach is on changing the learner by encouraging him/her to use appropriate learning strategies.

Because of the emphasis on mental structures, cognitive theories are usually considered more appropriate for explaining complex forms of learning (reasoning, problem-solving, information-processing than are those of a more behavioural perspective. However, it is important to indicate at this point that the actual goal of instruction for both of these viewpoints is often the same: to communicate or transfer knowledge to the students in the most efficient, effective manner possible. Instruction must be based on a student's existing mental structures, or schema, to be effective. The teacher should organize information in such a manner that learners are able to connect new information with existing knowledge in some meaningful way.

Such cognitive emphases imply that major tasks of the teacher/designer include:

(1) understanding that individuals bring various learning experiences to the learning situation which can impact learning outcomes;
(2) determining the most effective manner in which to organize and structure new information to tap the learners' previously acquired knowledge, abilities, and experiences; and

(3) arranging practice with feedback so that the new information is effectively and efficiently assimilated and/or accommodated within the learners' cognitive structure.

From Ertmer, P. A. and T. J. Newby. (2013). "Behaviorism, Cognitivism, Constructivism: Comparing Critical Features From an Instructional Design Perspective". *Performance Improvement Quarterly*, 26 (2), pp. 50–54

	Behaviourist	**Cognitivist**	**Constructivist**	**Social constructivist**
View on learning			Learning is based on personal discovery and experimentation	
Type of learning				
Instructional strategies				
Key concepts	Reinforcement			Scaffolding Zone of proximal development

Handout 2: What is learner-centred teaching?

Module 1, Task 2

GROUP C – Read the text and fill in the table with the available information.

"Constructivism is a theory that equates learning with creating meaning from experience Constructivists do not share with cognitivists and behaviourists the belief that knowledge is mind-independent and can be "mapped" onto a learner. Constructivists do not deny the existence of the real world but contend that what we know of the world stems from our own interpretations of our experiences. Humans *create* meaning as opposed to *acquiring* it. Since there are many possible meanings to [get] from any experience, we cannot achieve a predetermined, "correct" meaning. Learners do not transfer knowledge from the external world into their memories; rather they build personal interpretations of the world based on individual experiences and interactions. ... Knowledge emerges in contexts within which it is relevant. Therefore, in order to understand the learning which has taken place within an individual, the actual experience must be examined." [Ertmer and Newby, 2013: 55].

"There are two types of constructivism – cognitive constructivism and social constructivism.

Cognitive constructivism owes its genesis largely to Piaget and is concerned with thinking and learning. According to him learning is a self-directed activity which derives from experience. It is the learner who actively constructs knowledge by continuously organizing, reorganizing, structuring and restructuring new experiences. While doing so the learner fits the new knowledge and experience to the existing schemata, knowledge and conceptual structures through an adaptation process of assimilation (taking in knowledge and incorporating it into existing knowledge structures) and accommodation (changing ways of thinking as a result of learning and new knowledge) to accord with new reality trying to establish equilibrium – a balance between assimilation and accommodation.

Social constructivism is developed by Lev Vygotsky. He claims that "learning is a social, collaborative and interactional activity in which it is difficult to 'teach' specifically – the teacher sets up the learning situation and enables learning to occur, with intervention to provoke learning through scaffolding. Vygotsky suggests that teachers must provide the necessary scaffolding in developing and accelerating students' ability to think for themselves, control and take responsibility for their own learning. Scaffolding is a necessary part of building, but the important feature is that, once the building is completed, the scaffolding is removed. In educational terms, this suggests that the teacher supports learning but also encourages the development of students as independent learners, capable of standing on their own and thinking for themselves.

Teachers can provide scaffolding in a variety of ways, for example by asking questions, by prompting and probing, by providing reminders, by giving clear step-by-step instructions, by demonstrations.

Scaffolding is not only provided by the teacher. Small groups [of learners] can provide scaffolding to each other. This emphasizes Vygotsky's point that learning is a social as well as an individual activity. … Collaborative learning enhances learning as students talk about the issues involved with each other as well as with the teacher.

The 'zone of proximal development' [defines] the distance between the actual development of the learner and the level of potential development as determined by adult guidance or in collaboration with more capable peers. Learning should stretch students' capabilities.

… In social constructivist learning, the community (e.g. learners, parents, teachers, other adults both in school and out of school) is important and renders much learning meaningful – a key element of the theory" [Cohen, Manion & Morrison, 2004: 168–169].

The implications of this theoretical platform to learner-centred teaching put forward the idea that teachers need to provide conditions and opportunities for their students to solve different problems, to interact with each other, to evaluate and apply information which does not involve its recitation. "[Cohen, Manion & Morrison, 2004: 168–169].

From Ertmer, P. A. and T. J. Newby. (2013). "Behaviorism, Cognitivism, Constructivism: Comparing Critical Features From an Instructional Design Perspective". *Performance Improvement Quarterly*, 26 (2), p. 55 and Cohen, L., Manion, L. and Morrison, K. (2004). *A Guide to Teaching Practice*. Psychology Press, pp. 168–169.

	Behaviourist	**Cognitivist**	**Constructivist**	**Social constructivist**
View on learning	Learning is based on a stimulus and response			
Type of learning		Memorising and application of rules		
Instructional strategies				
Key concepts			Personal discovery Active learning	

Handout 3: Teacher-centred vs. Learner-centred paradigm

Module 1, Task 2

Read the information in the table and fill it in. Share your opinion with a partner.

	Teacher-centred paradigm	Learner-centred paradigm
View on knowledge	Knowledge is transmitted from the teacher to the students	
Students' role		Students are actively involved in the construction of knowledge
Teacher's role	The teacher is the main source of knowledge and the main evaluator of students' knowledge	
Knowledge and skills to be developed as result of the teaching and learning	Acquisition of knowledge outside the context in which it will be used	
Relations between teaching and assessment		Teaching and assessment are intertwined
Purpose assessment	Assessment results are used to monitor learning and learners' progress	
Assessment instruments	Objectively scored tests	
Attitude towards errors		Errors are tolerated and are viewed as an essential part of learning Learning from errors is important
Links with other disciplines	The focus in one single discipline	
Learning culture	Competitive and individualistic	
View on who is a learner in the classroom	Only students are viewed as learners	

Adapted from Huba, M. E. and Freed, J. E. (2000). *Learner-centred Assessment on College Campuses: Shifting the Focus from Teaching to Learning*. Allyn and Bacon.

TASK THREE: Students' competencies in learner-centred teaching

Aims:

- to focus participants' attention to the competencies students need to have in order to participate successfully in learner-centred environments;
- to get an idea of how these competencies can be implemented in the classroom.

Materials / Resources:

Handout 4 – Students' competencies in learner-centred teaching

Handout 5 – Cases

Preparation:

Photocopies of Handout 4 (one for each participant)

Time: 30 minutes

Procedure:

1. Start the session by asking participants to read the short story.

> *"Two boys were walking in a forest. The first boy was considered very smart; he received excellent grades in school, his test scores were high, and he possessed all necessary credentials to succeed in higher education. The other boy was quite different. His grades were poor, and he did not do well on tests. In general he was regarded as crafty and street smart. As they continued walking, they encountered a large, hungry grizzly bear. The first boy, calculating that the bear would override them in 17.3 seconds, began to panic. He looked over to his companion, who was calmly removing his hiking boots and putting on running shoes. The first boy said: 'You must be crazy. There is no way we going to outrun that grizzly bear!' The second boy replies: 'That's true! But all I have to do is outrun you!'"*
>
> [Sternberg and Spear-Swerling, 1996: 5–6]

Invite the participants to comment on the story and try to elicit from them why the second boy is more successful in solving the problem better than the first boy.

Sample answer:

The second boy is analytical, creative and practical. He doesn't like to follow directions coming from others, rather he prefers to generate his own ideas. He prefers to solve problems by analysing things, identifying their elements and discovering how things work.

The first boy is an excellent learner who is most probably very attentive in the classroom and he is willing to be told on how to proceed when doing a task. As he follows the ideas of

others, he has problems when he has to generate his own ideas. He is excellent at analysing the ideas of others and recalling them, but he fails to use these ideas when he has to provide practical solutions to different problems.

Place an emphasis on the fact that the first boy is a product of teacher-centred instruction and the second boy will do well in a learner-centred classroom.

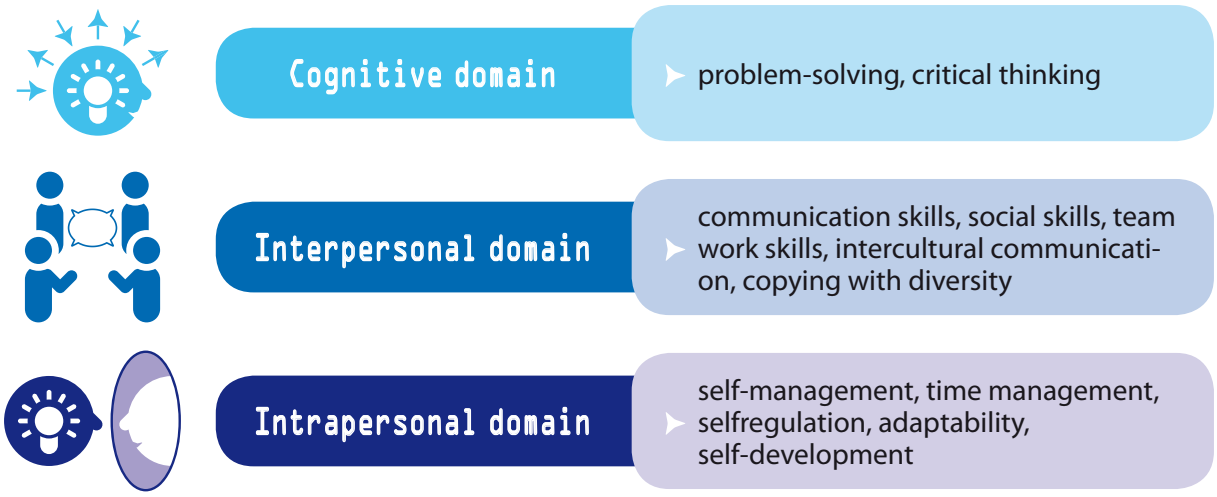
2. Continue by focusing on the 21st century skills which learners need to possess to be able to function successfully in society and on the job market. Remind participants of the core principles of student-centred instruction:
   - Learning is **personalized** (i.e. it is focused on the needs, interests, strengths etc. of learners);
   - Learning is **competency-based** (i.e. it requires the development of skills);
   - Learning takes place **anytime**, **anywhere** (i.e. due to ICT for example);
   - Students have **agency** and **ownership** of their learning (i.e. learners need to be creators and managers of their knowledge and learning process).

   [Bray and McClaskey, 2016: 1]

Link these principles to one of the numerous definitions of 21st century learning skills. For instance:

> "These skills include being able to solve complex problems, to think critically, to effectively communicate with people from a variety of different cultures and using a variety of different techniques, to work in collaboration with others, to adapt to rapidly changing environments and conditions for performing tasks, to effectively manage one's work and to acquire new skills and information on one's own."
>
> [National Research Council of the National Academies, (2001: 1]

Explain that these skills can be assigned to three main domains – *the cognitive domain, the interpersonal domain* and *the intrapersonal domain.* Draw participant's attention to the specific skills which constitute each domain:



The skills and the domains are adapted from the National Research Council of the National Academies, 2001, p. 2

If necessary, provide an explanation of what each domain means.

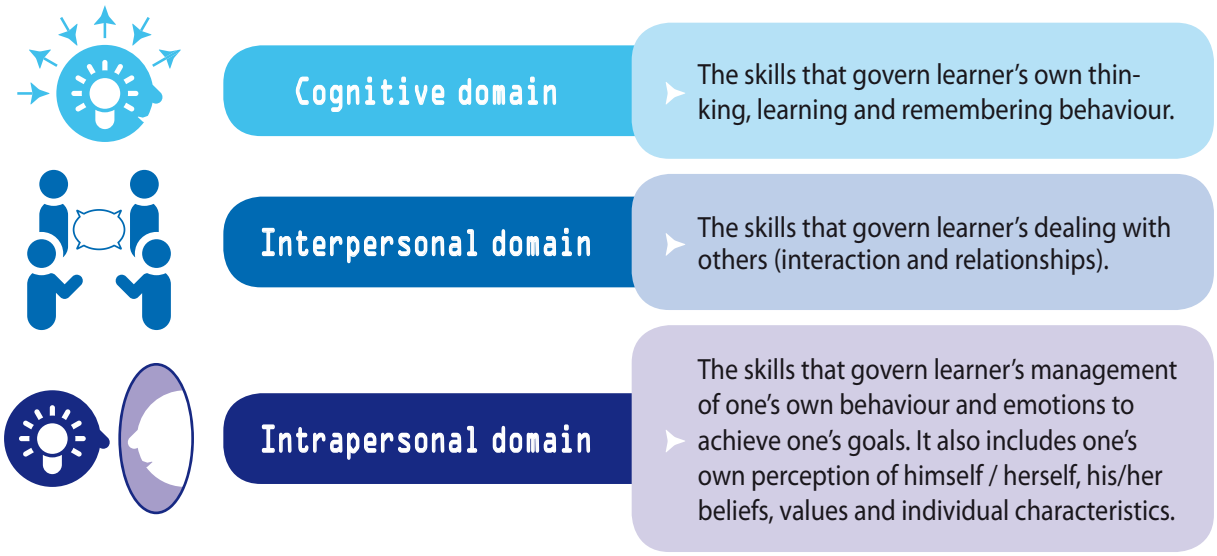
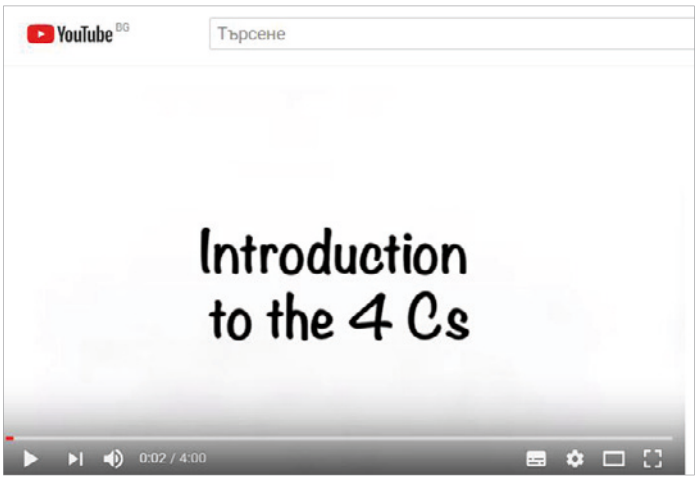


Figure 1. Main domains of learning skills

3. Tell the participants that you will focus on students' competencies in learner-centred environments by using the 4C's approach. Ask the groups to brainstorm what could stand behind the 4Cs (explain that each term starts with a C). Allow 5 minutes for discussion and reaching an agreement. Each group shares their ideas with the others and supports why they have chosen the specific terms.

4. Don't reveal the answer but tell the participants that you will play a video which will allow them to get feedback on their suggestions.



(https://www.youtube.com/watch?v=QrEEVZa3f98)

5. Give participants Handout 4 and explain that you will examine students': Critical thinking, Communication, Collaboration, and Creativity.
6. Ask participants to work individually and when ready compare their answers with a partner.
7. Check the answers in a plenary by asking individual participants to report. Acknowledge each contribution.

Sample answers:

Critical thinking skills:

- Draw conclusions based on the best analysis;
- Identify and ask significant questions that clarify various points of view and lead to better solutions.

Communication skills:

- Use multiple media and technologies, and know how to assess impact and their effectiveness a priori.

Creativity and innovation skills:

- Use a wide range of idea creation techniques (such as brainstorming);
- Create new and worthwhile ideas (both incremental and radical concepts);
- Understand that creativity and innovation are part of a long-term, cyclical process of small successes and frequent mistakes.

8. Give participants Handout 5. Invite them to read the four cases and try to indicate which of the 4Cs each of them illustrates. Participants work individually but compare answers with a partner.
9. Check answers with the whole group. Encourage comments and elicit the main reasons for choosing one of the 4Cs.

Sample answers:
Case 1 – creativity
Case 2 – communication
Case 3 – critical thinking
Case 4 – collaboration

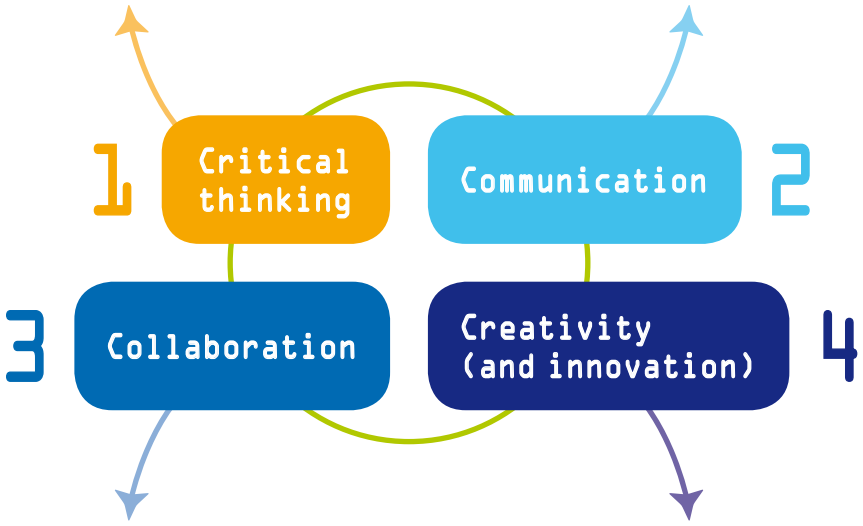
Note: The answers to the cases could be different as the 4Cs are intrinsically linked in the learner-centred classroom. Accept different answers from those give as sample, if the participants can prove well their arguments.

Handout 4: Students' competencies in learner-centred teaching

Module 1, Task 3

Look at the 4Cs. Match the skills given to the domains.

- Use various types of reasoning (inductive, deductive, etc.) as appropriate to the situation.
- Analyse and synthesize information, and make connections between information and arguments.
- Solve different kinds of unfamiliar problems in both conventional and innovative ways.
- Reflect critically (including on learning experiences and processes).
- Articulate thoughts and ideas effectively using oral, written, and nonverbal communication skills in a variety of forms and contexts.
- Use communication for a range of purposes (e.g. to inform, instruct, motivate, and persuade).
- Communicate effectively in diverse environments (including multilingual and multicultural).



- Demonstrate ability to work effectively and respectfully with diverse teams.
- Exercise flexibility and willingness to be helpful. in making necessary compromises to accomplish a common goal.
- Assume shared responsibility for collaborative. work, and value the individual contributions. made by each team member.
- Elaborate, refine, analyze, and evaluate original ideas to improve and maximize creative efforts.
- Understand that creativity and innovation are part of a long-term, cyclical process of small. successes and frequent mistakes.
- Be open and responsive to new and diverse perspectives.
- Demonstrate originality and inventiveness in work and understand the real world limits to adopting new ideas.

- Use a wide range of idea creation techniques (such as brainstorming) - _____.
- View failure as an opportunity to learn - _____.
- Draw conclusions based on the best analysis - _____.
- Use multiple media and technologies, and know how to assess impact and their effectiveness a priori - _____.
- Identify and ask significant questions that clarify various points of view and lead to better solutions - _____.
- Create new and worthwhile ideas (both incremental and radical concepts) - _____.

Adapted from the National Education Association. *Preparing the 21st Century Students for a Global Society*: An Educator's Guide to the "Four Cs" (on-line)

Handout 5: Cases

Module 1, Task 3

Read the cases. Decide to which of the 4Cs they refer and explain why you think so.

Case 1: Students in the Computer Science class form teams to design plans for a device that will be controlled by means of human voice and that will be used by people as a cleaning and cooking robot. Each team develops their own ideas about the hardware and software requirements of the voice controlled robot and designs a block diagramme. The teams also prepare a draft design of the robot.

In the next class the groups develop criteria for the review of the block diagrammes and the designs of the robots. The criteria are discussed by the whole class and a final version is reached. The teams pass their block diagrammes and designs to another team which makes recommendations for improvement of the original diagramme and design. The students then discuss their experience in the evaluation process and pinpoint the courses which they used as a basis for the design of the block diagrammes and the design of the robot (e.g. Human-computer interaction, Software and hardware design, Mobile technology, Computer Architecture, etc.). Learners also comment on the ways in which computer engineering demands the use of creative ideas to offer solutions to real-life problems. They also give suggestions on what experts they would need to involve in the design process if this robot will be used by people with disabilities.

Case 2: Students in an English class a presented with the following problem: *You work in a fast food restaurant in an area of the town where there are many office buildings. Each day at lunchtime lots of people working in the nearby offices come for something quick for lunch. A new fast food restaurant has recently opened near your place. How can you avoid losing your customers?* The students form groups which have to create a plan for keeping the customers. Each group has to offer three ways for solving the problem. The teams discuss the pros and cons of each of these three possible scenarios and reach an agreement on which the best one is. The team then has to describe the steps it has to follow in order to implement the decision and to think of ways for monitoring the implementation process.

Case 3: Students in a medieval history class form groups to research on the art and architecture in the Middle Ages. Groups have to create a slideshow of a specific architectural style or the works of an artist. The groups show their presentations to the rest of the class. The students compile the information found and prepare an online book which presents different perspectives. The online book contains texts written by the students and recordings of narrations produced by the learners.

Case 4: Students work in small groups and make research on the preferred digital tools people of different ages use to search for information and communicate with others. Students prepare interview questions and identify four target groups of respondents – teenagers, university students (19–25 years old), adults (25 to 45 years old) and adults (45 and above). The members of each small group interview people from the four target groups. Some of the interviews are video recorded because they will be included in the business plan presentations students will have to prepare. When they collect a total of 30 interviews from each of the target groups, they analyse the information and prepare presentations which contain graphs and figures. Each group prepares a business plan for different mobile applications for each of the four target groups. They present their business plans to a representative of a national mobile company and receive feedback on their ideas.

TASK FOUR: Teachers' competencies for learner-centred teaching

Aims:

- to establish a link between students' competences in learner-centred environments and what teachers need to do to develop learner-centred teaching;
- to stimulate participants to think about the changes they need to make in their teaching so that they shift from teacher-centred to learner-centred instruction.

Materials / Resources:

Handout 6 – Teachers' competencies for learner-centred teaching

Preparation:

Photocopies of Handout 6 (one for each participant)

Time: 40 minutes

Procedure:

1. Start the session by focusing participants' attention to the fact that teachers have many and different roles. Name some of the roles of the teacher:
2.

Designer | Leader | Innovator | Communicator

and ask the participants to think of more roles to these with regard to learner-centred instruction. Allow participants to work in small groups and invite them to draw a logo to each of the roles they come up with.

3. Invite participants to present briefly their logos and explain the role presented.
4. Show the participants the logos representing the *7Cs of 21st century lifelong learning* which exemplify the focus of contemporary instruction and which are linked to the learner-centred teaching paradigm.

Point that in the previous session you have examined the first 4Cs while discussing the skills of students in learner-centred environments. Elicit answers why the other 3 competencies are added to the initial 4.

Expected answers:

Computing – use of ICT/digital literacies and skills – the world in which we live in is becoming more and more digitalized; we are teaching digital learners ; ICT and digital technologies are part of our classrooms

Career / Self-reliance – learners are managers of their own learning; learning is lifelong and learners need to be prepared to manage changes, participate in different learning forms and to be able to redefine their goals and career plans.

Cross-cultural understanding – societies nowadays are diverse and composed of representatives of different cultures and different ethnics groups, people with various social and economic backgrounds, sex orientation etc.

5. Divide participants in three groups – A, B and C. Give Handout 6 and ask them to fill in the table.
6. When the groups are ready, form new groups of three which comprise of members of each of the former groups. In the new groups the participants report how they have filled in the tables and add to the teachers' competencies.
7. Groups report back in a plenary.

Sample answers:

Domain	**When developing instruction around these skills teachers need to:**
 CRITICAL THINKING	➢ Create learning opportunities that allow learners to think *how* they think. ➢ Design tasks which involve students in using reason and analythical thinking to design solutions to a a real-world problem. ➢ Give students time to think about the information before working with others. ➢ Step on students' prior knowledge when intron ducing the new. ➢ Provide questions that will help students think about the process of solving a problem. ➢ Provide questions that will help students think about how appropriate their solutions are. ➢ Ask students to apply multiple perspectives while working on a problem. ➢ Encourage learners to facilitate the development of their motivation and their self-esteem when taking decisions or defending ideas. ➢ Accept students' contributions but encourage them to reflect on them critically on the basis of the established criteria.

 COMMUNICATE  CROSS-CULTURAL UNDERSTANDING	➤ Set clear rules for communicating while working in pairs and in groups (e.g. *Students have to listen actively; Students respect the contributions of others; Students wait for their peers to finish their utterance and then take a turn* etc.). ➤ Observe the communication rules set and make sure their also apply to you. ➤ Involve students in communication activities which develop their skills to plan their messages, to structure them, to revise them and to deliver them. ➤ Integrate activities that allow students to work on their presentation skills. ➤ Ask students to think of the potential effects of their messages on the intended people. ➤ Allow students to use different type of communication tools which suit the task and the purpose, and that would help best deliver the message.
 COLLABORATE	➤ Give clear instructions to the tasks that require group work so that students can organize themselves easily and quickly. ➤ Use a variety of interaction patterns and is aware of the advantages and disadvantages of pair and group work. ➤ Allow students to organize and guide themselves while working together. ➤ Build collaborative relationships with colleagues and work effectively in teams with other teachers to design lessons that integrate. ➤ Demonstrate ability to negotiate and solve conflicts among students and when communicating with colleagues or other people. ➤ Learn from the work of others (including students). ➤ Enoruage students to participate in the pair/group work and contribute to the fiar share of work.
 COMMUNICATE	➤ Create and implement tasks that allow students to think about. different scenarios and solutions. ➤ Integrate tasks that involve students in conducting experiments, making research to offer a solution. ➤ Utilise students' prior content knowledge and skills when designng a creative task (don't be toom ambitious!). ➤ Allow learners to clearly identify the needs which require the generation of innovative ideas. ➤ Allow learners to search for additional information in order to consolidate the knowledge they need as a starting point to creative thinking. ➤ Create a safe learnng environment in which students feel secure, learner's ideaas are accepted and learning from mistakes is accepted.

 COMPUTING	➢ Aware of the level of digital skills of students and their ability to use digital tools in the learning process. ➢ Use digital tools to create engaging content to the students. ➢ Use social networking as a way to communicate with your learners when they work autonomously or to involve them in the discovery and use of new information. ➢ Create digital teaching and learning materials to support the development of students' active learning skills. ➢ Engage students in the discussion of the quality of the developed digital learning materials by you. ➢ Integrate digital assessment opportunities in your classroom.
 CAREER/ /SELF- -RELIANCE	➢ Support learners plan their learning goals. ➢ Support learners in setting realistic and achievable goals. ➢ Develop learners' skill to plan actions by giving an answer to the questions: "Where am I now?", "Where do I want to go?" and "How can I get there?" ➢ Create opportunities for students to monitor and evaluate their knowledge and skills on the basis of certain criteria. ➢ Integrate tasks in which students are encouraged to seek feedback from others and to give feedback in a constructive way. ➢ Use tasks which allow learners to identify their interests, level of skills, motivation, values. ➢ Integrate tasks which involve students to reflect onn their learning and on the learning of others (learning from own mistakes and the mistakes of others). ➢ Commit themselves to professional growth.

8. Ask the participants to go back to the roles of teachers suggested at the beginning. Ask them which of these roles they consider valid in the light of the discussed things teachers need to do to create learner-centred environments.
9. Round up the discussion and make a link to the next session which focuses on the explanation of some key terms.

Handout 6: Teachers' competencies for learner-centred teaching

Module 1, Task 5

Group A – Examine the table. Fill in the teachers' competencies.

Domain	Definition
	A multifaceted skill[3] that involves problem-solving in the face of ill-defined information. It comprises the four skills: (1) **systems analysis**: the ability to determine the relationship between variables in a system; (2) **argument analysis:** the ability to draw logical conclusions based on data or claims; (3) **creation:** the ability to construct a strategy, theory, method, or argument based on a synthesis of evidence (the artifact that is created goes beyond the information at hand); (4) **evaluation:** the ability to judge the quality of procedures or solutions. Evaluation involves criticism of a work product using a set of standards or specific framework.
Students' competencies	
➢ Identify and remember key details about a topic. ➢ Know what the new information means (i.e. to apply deductive and inductive thinking). ➢ Are able to put the information into use (i.e. to plan a project or set goals). ➢ Are capable of comparing and contrasting ideas, classifying, ordering and sequencing information, figuring out causes and effects. ➢ Can evaluate ideas or rate them according to certain criteria. ➢ Can put ideas together in an organised way.	

When developing instruction around these skills, teachers need to:

- _____
- _____
- _____
- _____
- _____
- _____
- _____

[3] http://www.p21.org/storage/documents/Skills_For_Today_Series-Pearson/Educators_-_Critical_Thinking_Executive_Summary.pdf (Retrieved 20-01-2018)

Handout 6: Teachers' competencies for learner-centred teaching

Module 1, Task 5

Group A – Examine the table. Fill in the teachers' competencies.

Domain	Definition
  CROSS-CULTURAL UNDERSTANDING	Communication involves the representation of connected ideas through the use of different communication modes (verbal and non-verbal, written, interpersonal, and digital) and tools (messaging, blogs, internet forums, chat rooms, social networks, e-mails, video conferences, broadcasting etc.) to transmit a well-structured and coherent message. Cross-cultural communication involves the development of understanding of how different cultures are organized, how the representatives of these cultures communicate and how they perceive the world.
Students' competencies	
➢ Articulate thoughts and ideas using oral, written and non-verbal communication skills in a variety of forms and contexts. ➢ Listen effectively to decipher meaning, including knowledge, values, attitudes and intentions. ➢ Use communication for a range of purposes (e.g. to inform, instruct, motivate and persuade). ➢ Utilize multiple media and technologies, and know how to judge their effectiveness a priori as well as assess their impact. ➢ Communicate effectively in diverse environments (including multi-lingual)[4].	

When developing instruction around these skills, teachers need to:

- _____
- _____
- _____
- _____
- _____
- _____

[4] http://www.p21.org/index.php?Itemid=40&id=261&option=com_content&task=view (Retrieved 20-01-2018)

Handout 6: Teachers' competencies for learner-centred teaching

Module 1, Task 5

Group B – Examine the table. Fill in the teachers' competencies.

Domain	Definition
	The ability to work well with others in a pair or in a group (team) towards a common goal (e.g. to discuss an idea, find a solution to a problem, or create something).
Students' competencies	
➤ Work well in a pair or group. ➤ Demonstrate ability to make compromise. ➤ Exercise flexibility and demonstrate willingness to contribute to reaching a common agreement or taking a common decision. ➤ Value the individual contribution of each pair/group member. ➤ Participate actively and share responsibility for pair/group work. ➤ Work effectively in teams as a team leader or as a team member.	

When developing instruction around these skills, teachers need to:

- _____
- _____
- _____
- _____
- _____
- _____
- _____

Handout 6: Teachers' competencies for learner-centred teaching

Module 1, Task 5

Group B – Examine the table. Fill in the teachers' competencies.

Domain	Definition
	Creativity – the ability to produce novel and useful ideas. A person's creative potential depends on their: ➤ level of expertise in a given subject; ➤ ability to engage in unconventional or divergent thinking; ➤ intrinsic motivation to engage in creative activities; ➤ personality factors, such as a tolerance for ambiguity and a preference for risk-taking.
Students' competencies	
➤ Elaborate, refine, analyze, and evaluate original ideas to improve and maximize creative efforts. ➤ Understand that creativity and innovation are part of a long-term, cyclical process of small successes and frequent mistakes. ➤ Be open and responsive to new and diverse perspectives. ➤ Demonstrate originality and inventiveness in work and understand the real world limits to adopting new ideas. ➤ Open and responsive to new perspectives which are incorporated in the work of the team[5].	

When developing instruction around these skills, teachers need to:

- _____
- _____
- _____
- _____
- _____
- _____
- _____

[5] http://www.nea.org/assets/docs/A-Guide-to-Four-Cs.pdf (Retrieved 20-01-2018)

Handout 6: Teachers' competencies for learner-centred teaching

Module 1, Task 5

Group C – Examine the table. Fill in the teachers' competencies.

Domain	Definition
 CRITICAL THINKING	Digital literacy "involves the confident, critical and responsible use of, and engagement with, digital technologies for learning, at work, and for participation in society. It includes **information and data literacy**, **communication and collaboration**, **digital content creation** (including programming), **safety** (including digital well-being and competences related to cybersecurity), and **problem solving**." [6]
Students' competencies	
➢ Can browse, search for and selected relevant information and digital content available on the internet. ➢ Analyse and interpret digital content, information and data. ➢ Organise, store and manage information and data in digital environments. ➢ Interact with others by using different digital tools. ➢ Collaborate with peers, the course tutor or other people to create information and use knowledge to create digital resources. ➢ Know the netiquette. ➢ Protect personal data and privacy on the internet. ➢ Aware of the health threats of digital technologies. ➢ Use digital technologies to offer creative solutions to problems or issues. ➢ Aware of his/her knowledge gaps in using digital technologies.	

When developing instruction around these skills, teachers need to:

- _____
- _____
- _____
- _____
- _____
- _____
- _____

[6] https://ec.europa.eu/jrc/en/digcomp (Retrieved 20-01-2018)

Handout 6: Teachers' competencies for learner-centred teaching

Module 1, Task 5

Group C – Examine the table. Fill in the teachers' competencies.

Domain	Definition
	"The ability to navigate the complex life and work environments in the globally competitive information age."[7]
Students' competencies	
➢ Adapt and assume various roles and responsibilities. ➢ Accept and incorporate feedback from peers and course tutor effectively. ➢ Accept constructive criticism and deal positively with praise. ➢ Set goals by applying relevant criteria. ➢ Plan the time and workload in an effective and efficient way. ➢ Work autonomously (without direct monitoring or oversight) to define, prioritise and complete Demonstrate initiative to improve the level of knowledge and skills. ➢ Demonstrate awareness and commitment that learning is a lifelong process.	

When developing instruction around these skills, teachers need to:

- _____
- _____
- _____
- _____
- _____
- _____
- _____

[7] http://www.p21.org/about-us/p21-framework/266-life-and-career-skills (Retrieved 20-01-2018)

TASK FIVE: Defining *learning to learn*

Aims:

- to introduce the concept of *learning to learn*;
- introduce the participants to the link between *learning to learn* and *learner-centred teaching.*

Materials / Resources:

Handout 7 – Defining 'learning to learn'

Preparation:

Photocopies of Handout 7 (one for each participant)

Time: 45 minutes

Procedure:

1. Start the session by showing participants the following text:

   Compact easy to clean, fast and foolproof, the Breville model, introduced in 1981, is the apogee of democratic design. I've taken nine through life with me. When I left home to study in London my mom packed the Breville (I think her tears were for me). Morning noon or night, in my student bedsit, the Breville churned out piping hot little mammas, sealing in cheese often well past its sell-by date and zapping any hidden beasties with its powerful heat. It even perks up the most cardboard-thin, sliced white bread.

   ("King of Kitsch – Wayne Hemingway On a Different Way To Do Retro", Financial Times, 23–24 July 2005 in Tsvetkova, N. *et al.* (2006). *Teaching English in the Primary Classroom* (Teacher Training Handbook), British Council Bulgaria)

   Ask them to discuss in small groups what the text describes.

2. Invite participants to share their ideas. If they do not come up with the correct answer, tell them that this is an electrical appliance – a toaster.
3. Ask participants to stay in the small groups. Introduce the questions and invite the participants to discuss them:
   - *How did you approach this activity?*
   - *What strategy/strategies did you use to solve the "puzzle"?*
   - *What helped you reach the solution?*
   - *How successful were you in finding the solution?*

4. Ask the groups to report their answers in a plenary. Invite the participants to change perspectives and 'put on their teaching hats'. Ask them to reflect on the benefits of using

activities that focus learners' attention to the ways they use to manage their own work and to reflect on their learning strategies?

5. Explain that activities which require from learners the development of understanding of how they learn, their strengths and their needs and in monitoring their own progress involve *metacognition*.
6. Give Handout 7 to participants and explain that they will gain a deeper understanding of the concept of *learning to learn*. Divide them into two groups – A and B and ask each group to complete the relevant task.

Answers:

Group A: (1) umbrella; (2) metacognitive; (3) how; (4) preferences; (5) encourage; (6) independent

Group B: A – 3; B – 2; C – 1

7. Form new pairs by pitting together participants who worked on the task of group A and group B. Give them 5 minutes to brief each other on the information acquired from preforming the tasks. Invite them to give you a summary of what learning to learn is. Invite them to think about:
    - the reasons for learning something;
    - the reasons why students need to be aware of the process of learning;
    - the need for learners to manage their own learning;
    - the need to monitoring and evaluating their own learning.

8. Ask the participants to report and make a summary of what learning to learn is. Explain that there are many definitions of this term. For instance:

> *Learning to learn is the ability to pursue and persist in learning, to organise one's own learning, including through effective management of time and information, both individually and in groups. This competence includes awareness of one's learning process and needs, identifying available opportunities, and the ability to overcome obstacles in order to learn successfully. This competence means gaining, processing and assimilating new knowledge and skill as well as seeking and making use of guidance. Learning to learn engages learners to build on prior learning and life experiences in order to use and apply knowledge and skills in a variety of contexts: at home, at work, in education and training. Motivation and confidence are crucial to an individual's competence.'*
>
> [Education Council, 2006 annex, paragraph 5]

> *Learning to learn is "a process of discovery about learning. It involves a set of principles and skills which, if understood and used, help learners learn more effectively and so become learners for life. At its heart is the belief that learning is learnable."*
>
> [The Campaign for Learning, 2007]

It can be achieved in a variety of ways some of which include:

- *creating one's own reasons for learning (e.g. the student decides what he/she will learn this week / by the end of the month, course etc.);*
- *understanding the process of learning (e.g. the student is aware of what he/she needs to do at a particular stage of the lesson, what he/she can do to improve his/her memory, critical reading skills etc.);*
- *managing learning and the feelings about learning (e.g. students ask themselves questions like: "How am I going to achieve my goals?", "How do I feel about this activity / task / course and why?" ect.);*
- *monitoring and evaluating one's own learning (e.g. students are able to self-evaluate their own learning and are aware of their strengths and weaknesses).*

9. Round up the discussion by focusing on the fact that learning to learn is linked to the learner-centred paradigm because learner-centred instruction encourages students to reflect on what they are learning and how they are learning it, motivates the learners and allows them to exercise control on the process of learning.

Handout 7: Defining 'learning to learn'

Module 1, Task 5

Group A. Read the text and fill in the gaps with the words given in the box.

independent	preferences	encourage	umbrella	metacognitive	how

Learning to learn, also referred to as learner training, is an (1) _____ term for a wide variety of activities designed to develop (2) _____ awareness and learning strategies. The aim is to focus … [students'] attention on (3) _____ they learn, in addition to what they learn. It takes into account that different learners have different ways of learning and different (4) _____ regarding activities and learning materials. It therefore aims to (5) _____ pupils to become aware of and develop their own learning strategies so they can become more effective and (6) _____learners.

Eliis, G. and Brewster, J. (2014). *Tell it Again! The Storytelling Handbook for Primary English Language Teachers,* 3rd edn., British Council, p. 42

Group B. Match the terms and their definitions.

Generally, learning strategies are what we do to learn. Some strategies will differ from learner to learner depending on a range of variables such as the nature of the learning task, learning preference and motivation, while others are more general. Sometimes they are used consciously, that is a learner will make a deliberate and conscious decision to use a particular strategy, at other times they are used unconsciously. There are three major groups of learning strategies:

A. **Metacognitive strategies** (regulate learning) – _____.
B. **Cognitive strategies** (are more task specific and involve actually manipulating the subject to be learnt) – _____.
C. **Social mediation strategies** (used by learners to involve themselves in social and group activities) – _____.

(1) These are developed by [students] collaborating and co-operating together in [different] activities. Opportunities for developing these are usually set up through pair or group work, project work, interviews and surveys, etc.
(2) These include thinking about learning: planning, monitoring and evaluating learning, and can also involve children reflecting on aspects of the learning process through hypothesising, comparing, self-questioning, self-correction and selecting activities.
(3) These include, for example, sorting, classifying, matching, predicting, using visual and audio clues as aids to meaning, repeating, using a class library or dictionary. They require [students] to do things with the language and their learning materials and relate to specific activities in specific skills areas such as: listening or reading, [predicting, risk-taking] etc.

Elis, G. and Brewster, J. (2014). *Tell it Again! The Storytelling Handbook for Primary English Language Teachers,* 3rd edn., British Council, pp. 42–43.

TASK SIX: The role of the teacher in the *learning to learn* process

Aims:

- to sensitize the participants of the role of the teacher in the *learning to learn* process.

Materials / Resources:

Handout 8 – The role of the teacher in the *learning to learn* process

Preparation:

Photocopies of Handout 8 (one for each participant)

Time: 20 minutes

Procedure:

1. Link this session with the previous one by asking the participants whether they think that the learner-centred teaching classroom requires from them the development of learning to learn strategies of their students. Write on the board (on a flipchart) the number of those teachers who answer "Yes" and to those who answer "No". Do not explain why you need those numbers.
2. Give Handout 8 and allow the participants to work on it individually. Tell them that they have 5 minutes to complete the task.
3. When ready, ask the participants to form groups of 4 and compare answers. The members of the group have to explain the reasons for giving the respective answer. All members of the tem have to reach an agreement about each answer. Allocate a time limit of 10 minutes.
4. Groups report back by choosing a spokesperson. The spokesperson presents the answers and the arguments of the group for giving the answers. The other groups can agree or disagree with the suggested answers or they can add more arguments for or against an answer.

   Sample answers with sample reasons:

   NO *(the role of the teacher is inadequate and does not provide opportunities for students to develop their learning to learn skills)*

   (4) The reproduction of the lesson content does not necessarily include understanding this content and an ability to use the information in different contexts. Learner-centred teaching helps students develop their skills for problem-solving and critical thinking which facilitate the retention and transfer of new information.

   (5) Learner-centred teaching and learning to learn are focused on encouraging students to become independent learners, i.e. they need to try doing something without the help of the teacher.

(13) Every learner is different and we all learn in different ways, i.e. we have different learning styles. It would be better to try and find the learning styles of your students and try to use a variety of techniques and activities that suit the learning styles of the students in the classroom. Try to advise your students to use those learning strategies that best suit their learning style and that are most effective for them.

(14) It is necessary to explain what you require from students and what they should do in order to complete the task. If students have questions on it, there should be time for asking and answering.

YES *(the role of the teacher is adequate and he/she provides opportunities for students to develop their learning to learn skills)*

(1) Students have to be encouraged to do things without the help of the teacher so that they become autonomous, self-regulated learners who know that mistakes are part of learning.

(2) Students have to be able to use a variety of questions so that they not only receive additional information but are able to learn what they need to and thus plan, research, create, improve what they produce in and outside the classroom.

(3) Students need to be aware of what the purpose of the lesson is – this allows them to think about whether they have been successful in achieving the aims in the end of the lesson.

(6) Students in learner-centred classrooms need to develop their problem-solving and creative thinking skills and this is facilitated by the formulation of hypotheses and their testing.

(7) Explanations help students get an idea of what is expected from them and they are able also to get an idea of the different steps of doing something.

(8) Students are encouraged to take an active role in self-reflection so that they develop a better understanding of their learning preferences and self-awareness of their learning styles

(9) Students need to have a clear understanding of why they should do something in order to be consciously aware of the purposes of learning.

(10) The creation of an atmosphere of mutual trust and respect is an important aspect of learner-centred classrooms which also involves the development of cooperation and collaboration environment.

(11) This helps to develop students' interpersonal skills and allows for peer learning.

(12) Students can think about what they know, what they would like to learn on a topic and how they could do that. By thinking about their learning they will have to set learning objectives that are relevant, realistic and achievable.

(15) This allows students to reflect on the ways they learn, on their performance and on their contribution to the activities in class and while working outside the classrooms on the set tasks.

(16) This allows students to choose activities according to their preferences, interests, needs and to plan on how to do the activity.

(17) The teacher can accept all contributions which are plausible.

(18) Students need to be able to ask a variety of questions to get information and explore different perspectives. Interpersonal communication also involves the ability to ask questions successfully.

(19) Students have to develop their skills for searching for information and working with different types of information available in different formats and on different media (e.g. books, dictionaries, web sites etc.).

(20) Students have to receive help in getting to know how to structure logically and coherently information and how to combine these parts into one whole (applied in critical thinking and creativity processes).

5. Round up the session by going back to your first question. Ask the participants again the same question and check whether there is a difference in the answers. It is expected that those who have answered "No" at the beginning, will have changed their opinion by the end of the session.

Handout 8: The role of the teacher in the learning to learn process

Module 1, Task 6

Read the statements. Mark with a tick (✓) the ones that you consider as an illustration of the role of the teacher when helping learners learn how to learn.

1. *Allow students to take risks (e.g. by guessing the meaning of unknown words)* ☐
2. *Ask students questions about their learning.* ☐
3. *Share with students the aims of the lesson.* ☐
4. *Require from students to reproduce everything you have said or everything written in the coursebook / lecture.* ☐
5. *Insist that students should not try to do things without your help.* ☐
6. *Encourage students to make predictions (e.g. about how some device works, how language works, how the text goes on etc.)* ☐
7. *Explain how to do an activity.* ☐
8. *Invite students to express how they feel when doing a task or an activity.* ☐
9. *Explain the purpose of an activity or a task.* ☐
10. *Use different interaction patterns in your lessons – individual, pair, group or whole class work.* ☐
11. *Change the composition of pairs or groups frequently.* ☐
12. *Allow students to plan their own learning (e.g. to plan how to solve a specific problem).* ☐
13. *Insist on students using your learning strategies for successful acquisition of the new content and skills* ☐
14. *Give students the task for homework just before the bell rings.* ☐
15. *Encourage students to assess their own learning.* ☐
16. *Allow students to choose which activity to do from a selected set of activities.* ☐
17. *Accept all contributions from learners even those that are unexpected or strange* ☐
18. *Encourage students to ask different questions (e.g. ask how to use ideas, how to evaluate something, ask about facts etc.)* ☐
19. *Use tasks in which students have to search for additional information from different sources.* ☐
20. *Help students learn how to organise parts of information in a logical way and how to create an overall structure composed of parts of information (e.g. writing an essay, creating a presentation on a topic etc.).* ☐

TASK SEVEN: Development of learning strategies

Aims:

- to introduce participants to the *learning to learn* strategies;
- to encourage participants to think about their own classrooms and the value of learning to learn strategies.

Materials / Resources:

Handout 9 – Developing learning strategies

Handout 9 – Developing learning strategies (completed)

Preparation:

Photocopies of Handout 9 (one for each participant)

Photocopies of Handout 9 (completed) (one for each participant)

Time: 30 minutes

Procedure:

1. Divide participants into three large groups – A, B, C. Give each group the respective handout and ask them to complete the table. Set a time limit of 10 minutes for completing the task.
2. Form new groups of 3 which comprise of members from each of the former groups – A, B and C. Ask them to share information on the worksheets and discuss their ideas about the learning strategies given in their handouts.
3. Give out the complete Handout 9. Ask participants to compare and contrast ideas. Allow time or discussion and suggestions. Round up the discussion by pointing that learning to learn strategies can be easily incorporated into the classroom.

Handout 9: Developing learning strategies

Module 1, Task 7

Group A. Fill in the last column of the table. Discuss your suggestion with your partners.

Strategies		Description	Learning to learn value	Examples
Metacognitive strategies	Planning learning	Students set relevant objectives for the course or for a topic on the basis of what they know and are able to do and what they would like to achieve.	Students reflect on what they know and what they want to find out, as well on the ways in which they can do this.	
	Reviewing	Students can be taught to review systematically in order to aid long-term retention and to identify what they know and do not know, as well as to become aware of their strengths and weaknesses.	Students get an idea of the work done, progress made, knowledge and skills acquired and the gaps in their knowledge and skills.	
	Selecting activities	Students choose from a selection of different activities according to their own interests and needs, to decide for themselves what to do, and to plan their own work.	Students become aware of their own interests and strengths as learners, and become more independent.	
Cognitive strategies	Using reference materials	Students can learn how to use indexes in reference materials, dictionaries, a school library or book corner, or the internet to research information effectively.	Students develop their independence and autonomy as learners.	
Socio-active strategies	Co-operating together	Students collaborate and co-operate together (in pairs or in groups) while working on the activities.	Students are given the responsibility for their own learning through collaborative discourse.	

Based on Ellis, G. and Brewster, J. (2014). *Tell it Again! (The Storytelling Handbook for Primary English Language Teachers).* British Council, pp. 42–44.

Handout 9: Developing learning strategies

Module 1, Task 7

Group B. Fill in the last column of the table. Discuss your suggestion with your partners.

	Strategies	Description	Learning to learn value	Example
Metacognitive strategies	Self-questioning	Students ask themselves questions about their learning.	Students reflect on the content of the course or specific lessons and on the processes of learning.	
	Self-assessment	Pupils can complete self-assessment sheets in order to reflect on the content of learning, upon how they learn, as well as on their own performance throughout a lesson/course and their contribution to the class.	Students learn to monitor their progress and maintain motivation, and highlight their strong and weak points.	
	Self-correction	Students check their own work either individually or in pairs.	Students take on responsibility for their own learning and work out where and why they may have made a mistake.	
Cognitive strategies	Risk-taking	Students build up enough confidence so they are willing to take risks and do something without the help of the teacher.	Builds up students' confidence and autonomy as learners.	

Based on Ellis, G. and Brewster, J. (2014). *Tell it Again! (The Storytelling Handbook for Primary English Language Teachers).* British Council, pp. 42–44.

Handout 9: Developing learning strategies

Module 1, Task 7

Group C. Fill in the last column of the table. Discuss your suggestion with your partners.

	Strategies	Description	Learning to learn value	Example
Metacognitive strategies	Problem-solving, Hypothesizing	Students are encouraged to guess how differ things work, analyzing and interpreting information to find a solution, consolidate knowledge or establish something without and explanation from the teacher.	Students become independent thinkers capable of managing their own learning.	
	Comparing	Students are encouraged to analyse and compare differences and similarities (e.g. people, processes, places, languages, etc.).	Students develop their curiosity and awareness of multiple perspectives.	
Cognitive strategies	Classifying and ordering	Students classify items on the basis of explicit criteria.	Facilitates the recall of basic concepts and can be a useful memory aid when learning.	
	Predicting	Students are encouraged to use a variety of clues to guess possible content, organization of a machine, process etc.	Students are actively and personally involved in the learning process and can develop self-confidence.	

Based on Ellis, G. and Brewster, J. (2014). *Tell it Again! (The Storytelling Handbook for Primary English Language Teachers).* British Council, pp. 42–44.

Handout 9: Developing learning strategies (completed)

Module 1, Task 7

Group A. Fill in the last column of the table. Discuss your suggestion with your partners.

Strategies		Description	Learning to learn value	Examples
Metacognitive strategies	Planning learning	Students set relevant objectives for the course or for a topic on the basis of what they know and are able to do and what they would like to achieve.	Students reflect on what they know and what they want to find out, as well on the ways in which they can do this.	Think about what you know on a topic and what else you would like to learn. How are you going to achieve this? What would you have to do and within what deadlines?
	Reviewing	Students can be taught to review systematically in order to aid long-term retention and to identify what they know and do not know, as well as to become aware of their strengths and weaknesses.	Students get an idea of the work done, progress made, knowledge and skills acquired and the gaps in their knowledge and skills.	What did you learn the previous/this lesson?
	Selecting activities	Students choose from a selection of different activities according to their own interests and needs, to decide for themselves what to do, and to plan their own work.	Students become aware of their own interests and strengths as learners, and become more independent	Choose one of the given writing activities and do it for homework.
Cognitive strategies	Using reference materials	Students can learn how to use indexes in reference materials, dictionaries, a school library or book corner, or the internet to research information effectively.	Students develop their independence and autonomy as learners.	Find out information about why the Romans invaded Britain and the stage of invasion and conquest.
Socio-active strategies	Co-operating together	Students collaborate and co-operate together (in pairs or in groups) while working on the activities.	Students are given the responsibility for their own learning through collaborative discourse.	Discuss … in your group. Role plays / Dialogues

Based on Ellis, G. and Brewster, J. (2014). *Tell it Again! (The Storytelling Handbook for Primary English Language Teachers).* British Council, pp. 42–44.

Handout 9: Developing learning strategies (completed)

Module 1, Task 7

Group B. Fill in the last column of the table. Discuss your suggestion with your partners.

Strategies		Description	Learning to learn value	Example
Metacognitive strategies	Self-questioning	Students ask themselves questions about their learning.	Students reflect on the content of the course or specific lessons and on the processes of learning.	Did you like this activity? Why? Why not? Which parts of the lesson/course did you like / find easy / difficult? Why? What can you do to learn better?
	Self-assessment	Pupils can complete self-assessment sheets in order to reflect on the content of learning, upon how they learn, as well as on their own performance throughout a lesson/course and their contribution to the class.	Students learn to monitor their progress and maintain motivation, and highlight their strong and weak points.	What did you learn? How well did you do (in …)? What do you need to revise? What do you need to improve?
	Self-correction	Students check their own work either individually or in pairs.	Students take on responsibility for their own learning and work out where and why they may have made a mistake.	Edit your written compositions on a topic in pairs/groups. Edit your own written composition.
Cognitive strategies	Risk-taking	Students build up enough confidence so they are willing to take risks and do something without the help of the teacher.	Builds up students' confidence and autonomy as learners.	Guess the meaning of the unknown words. What do you think will happen if (e.g. people on Earth can no longer use electricity)? What do you think will be the future of people in a digital world?

TASK EIGHT: Lesson planning

Teresa Pessoa

Aims:

- to provide participants with a common understanding of the terms used in lesson planning;
- to get familiar with the structural organisation and content of a lesson planning template.

Materials / Resources:

Handout 10 – Lesson Plan Form

Preparation:

Photocopies of Handout 10 (one for each participant)

Time: 40 minutes

Procedure:

1. Work with the whole group of participants. Follow the notes on lesson planning provided below.

Notes:

Planning: General Issues

Planning is a process that allows for thinking and designing the future; a process that involves defining means and goals and elaborating a reference framework as a guide to action: a process orientated towards action.

Planning is a transversal competence for different professions; in current language, it means 'thinking before acting'. The complex of decisions that planning entails, insofar as it implies the anticipation of problems and their resolution, is present in everyday life and requires experience, knowledge and mastery of various techniques and procedures.

Planning means, in the teaching profession, thinking about the contents, structure and activities to be developed and implemented throughout the year, in the case of a curricular unit (UC), or for a specific moment in the case of a lesson, that allows the teacher to visualize the work that will be developed by the students.

Thinking about a lesson is also a complex activity that requires scientific knowledge that goes beyond the content to be taught. It must: set the sequence of the contents; select the activities necessary to achieve certain objectives; consider the cognitive level of the students

to whom the class is directed; select and often devise educational resources and materials; define spaces, timelines and rhythms.

The planning activity is one of the few reflective moments of the life of a teacher (Shulman, 1986, 24). As Jackson has noted, these are usually solitary moments in the life of teachers in which their work "does look highly rational" (1990, 151). But it does not have to be this way!

Planning: Long-term, Medium-Term and Short-Term Plans

Planning can be carried out at any of several levels, namely:

a) Long-term plan, or annual plan, when you think for a whole school year.
b) Medium-term plan, the plan of the unit, focusing on an entire semester or a curricular unit.
c) Short-term plan, for a single class or lesson.

Planning Models

There are different models for the development of a plan, and in general terms:

- the teacher can decide to start with goal-setting (the Tyler model), that is, to begin by thinking about where s/he wants to go in order to select the subject of the lesson and the strategy, as well as the resources to be used;
- or one can start by selecting the topics or contents to be addressed (Stenhouse model) and then decide the sequence of activities to be developed and their evaluation;
- one can also start by thinking (the Weick model) about the activities and tasks that will later define learning outcomes.

Planning: Specific Issues

Lesson planning, limited to a given moment and space, is contextualized in a particular curricular unit (u.c.) where it is inserted. Whereas the course structure/syllabus gives the teacher and the student a general perspective, the lesson plan gives an objective and structured vision of what happens in the time period allocated by it.

Planning is a decision-making process regarding the teaching-learning process. Planning implies a direction, an intention and an anticipation of what we want to do, and why. We tend to say “lesson planning is at the heart of being an effective teacher”.

When embarking on a lesson plan, the teacher selects a theme, a content from the course (*What*), turns it into material through a certain set of methodologies, strategies and activities (*How*), thinking about the students’ characteristics (*Who*), and situating them in a given time

and space (*When*) with the support of previously defined resources (*How*) so that students learn something meaningful and effective or acquire a certain competence (*For what*).

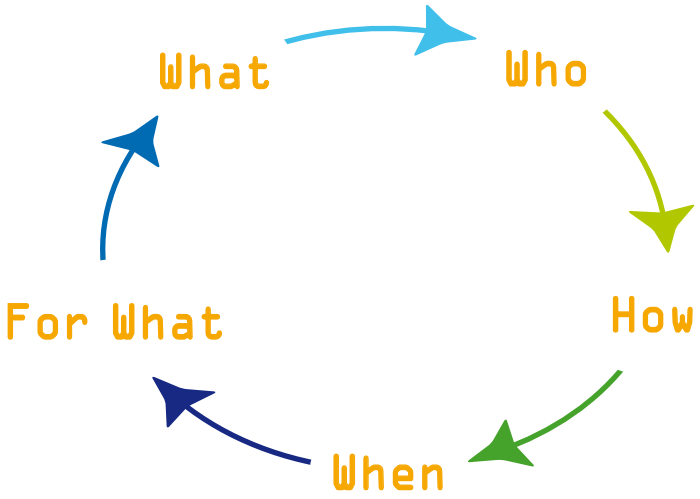


Figure1. Planning Initial Issues

A lesson plan is a dynamic process that seeks to answer the questions previously mentioned (Fig. 1) that often appear as problems that the teacher solves as s/he thinks and 'design' the lesson .

Usually, planning corresponds to a teacher's vision, the teacher's design of a framework for the lesson or class. It is very important to structure this when writing a lesson plan because it permits thinking through and visualizing what will happen first, second and so on, and at the end in that class; it allows students to understand and organize their learning.

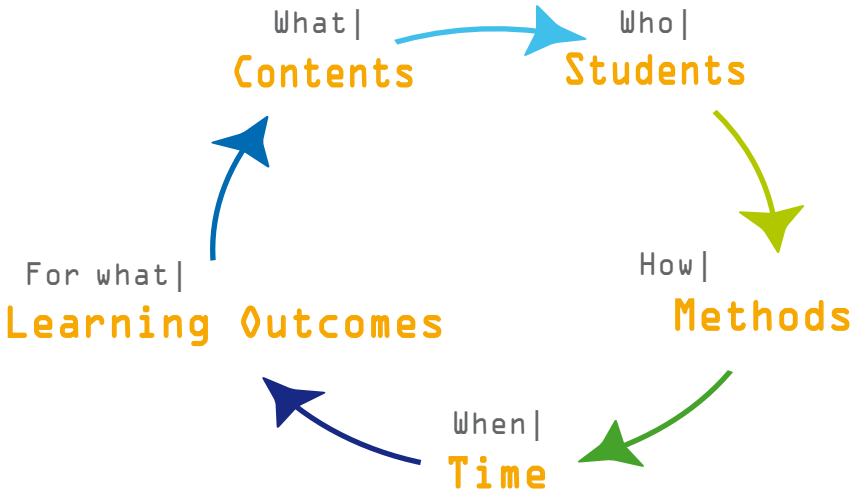


Figure 2. Planning Main Dimensions

Most of the time, planning consists of writing a plan that, in the case of the preparation of a lesson (Fig. 2) , is conceived in terms of formulating certain objectives, defining and selecting the contents in a logical and meaningful sequence, whose development and implementation require selection of certain strategies and resources, timing and an evaluation.

Planning Steps

Teachers' plans correspond to and encompass what Clark & Peterson (1986) called pre-active and post-active thoughts, that is, thoughts and decisions occurring before and after teacher-student interaction in the classroom.

In any case there are important decisions regarding (Fig.2):

- ✓ the choice of content;
- ✓ methodologies;
- ✓ learning activities: every teacher should think about the tasks that will be asked of the student during the lesson; this consideration should embrace the objectives of the lesson, the class typology itself, the class duration, the communication resources to be developed and the students to whom it is addressed;
- ✓ time required for each phase;
- ✓ pedagogical materials, communication resources;
- ✓ and learning outcomes to be achieved;
- ✓ it is also important to make decisions about the modalities and instruments for the evaluation of the devised learning elements.

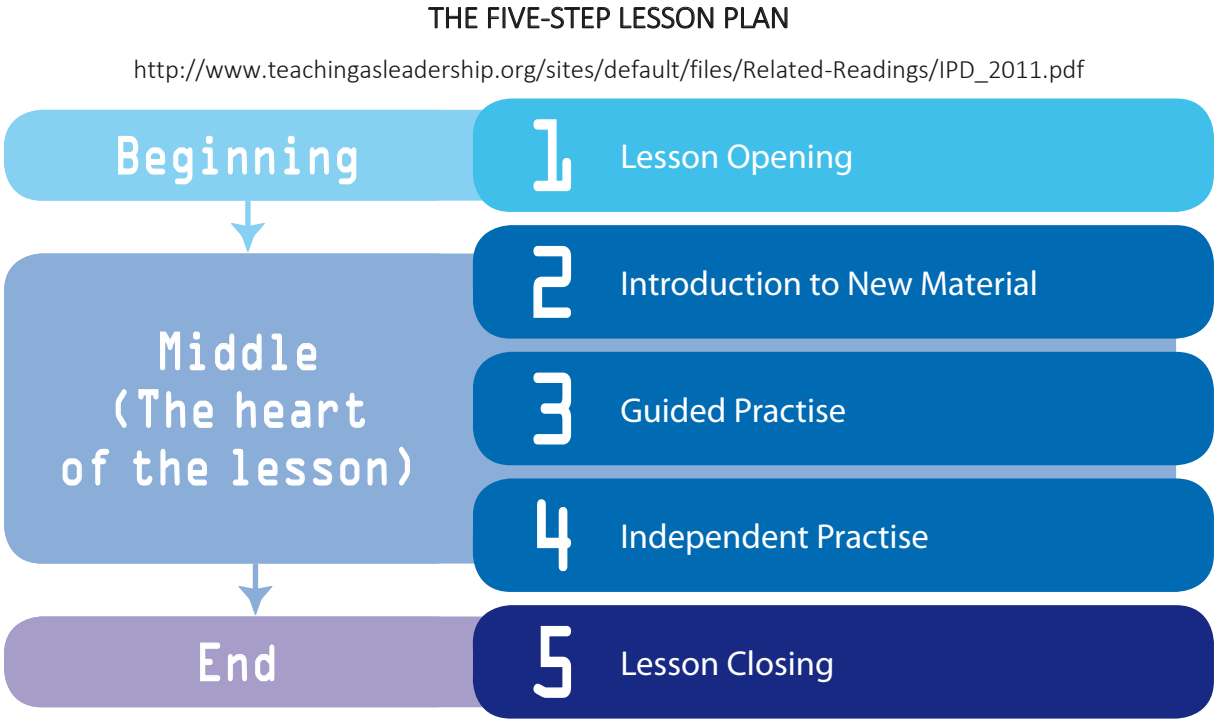


Figure 3. Five-steps Model

Beginning - The beginning of the lesson is a very important moment in order to motivate, to attract attention and to involve and arouse students' curiosity for the engagement of the students, and we should:

"Communicate to students WHAT they are going to learn."
"Communicate to students WHY IT IS IMPORTANT to learn this material."
"Communicate to students HOW IT RELATES to what has been done previously."
"Communicate to students HOW the learning will occur."

(http://teachingasleadership.org/sites/default/files/Related-Readings/IPD_Ch5_2011.pdf | p. 80)

Middle - The heart of the lesson, which may include:
Introduction of New Material:

1. What information we will convey.
2. How to convey the information, and WHAT APPROACHES/METHODS to use to present new information.
3. What students will be doing.
4. How we will know that students understand.

Guided Practice:

1. All students should have an opportunity to practice.
2. Multiple opportunities for practice.
3. Continuous feedback.
4. Checking for Understanding: "questioning; observation, etc".

(http://teachingasleadership.org/sites/default/files/Related-Readings/IPD_Ch5_2011.pdf | p.85–93)

Independent Practice:

1. The activity should focus on the achievement of the objective.
2. All students should have to master the skill or knowledge independently.
3. Provide opportunity for extension.

(http://teachingasleadership.org/sites/default/files/Related-Readings/IPD_Ch5_2011.pdf | p.86–97)

End - The final part of the lesson should be designed so that it:

1. Reinforces the lesson objective.
2. Reemphasizes and clarifies the objective that the students have learned.
3. Reemphasizes the significance of that objective.
4. Provides an opportunity to check for student understanding.
5. (Assesses students' mastery of—or progress toward—that objective (if not done earlier).

(http://teachingasleadership.org/sites/default/files/Related-Readings/IPD_Ch5_2011.pdf | p.100)

Elements of a plan

(The Middle - the heart of the lesson), which may include:

I - IDENTIFICATION DATA

GENERAL CHARACTERIZATION			
Course:		Unit/Topic:	
Lesson Title:		Lesson Duration:	

Figure 4. Identification Data

II - Specific elements (the heart of the lesson)

- Contents, often designated and known by the 'subject' of the class that is 'taught' or 'given' -as it is often expressed – to the student, using various methodologies and often performed in various tasks or activities.
-

II - SPECIFIC ELEMENTS

LEARNING OUTCOMES	CONTENTS	METHODS	ACTIVITIES	RESOURCES	ASSESSMENT

Figure 5. Specific Elements

- Objectives | Learning Outcomes

To develop a plan with well written learning objectives is very important in the teaching profession. It helps students to learn and teachers to teach and reflect on their own practice.

To define ***Objectives*** today is a complex task not only because it implies thinking in detail in the classroom, having a vision about what will happen, but also because it requires knowledge of a complex and specific terminology.

To define the concept of ***Learning Outcomes*** we use the terminology used by CEDEFO (2010, 22) "are statements of what a learner knows, understands and is able to do on completion of a learning process, which are defined as knowledge, skills and competences".

Learning Outcomes is a concept similar to ***Competence***. One important difference is that "learning outcomes are more comprehensive than competences, and hence the term 'learning outcome' can be used as an umbrella term for competence(s), while the reverse is not the case. Competence, in this context, refers to performance in a given situation, i.e. to the ability to use knowledge and skills in an appropriate way. According to that understanding, competence can be defined as contextualised learning outcomes" (Cedefop, 2010, 23).

Learning Outcomes is a concept similar to ***Learning Objectives***. One significant difference is that "learning outcomes are concerned with the achievements of the learner rather than the intentions of the teacher (expressed in the aims of a module or course). They can take many forms and can be broad or narrow in nature. There is often some confusion between learning outcomes and aims and objectives and certainly many regard learning outcomes and objectives as the same thing and use the terms synonymously. *Aims are concerned with teaching and the teachers intentions whilst learning outcomes are concerned with learning*." (Cedefop, 2010, 24).

Therefore, you should:

a) know the difference between goals, objectives and learning outcomes. For this you should read the following texts [Annex 1 and 2].
   i. Annex 1 - CEDEFOP (2010) LEARNING OUTCOMES APPROACHES IN VET CURRICULA. A COMPARATIVE ANALYSIS OF NINE EUROPEAN COUNTRIES, Publications Office of the European Union, 2010, http://www.cedefop.europa.eu/EN/Files/5506_en.pdf#
   ii. Annex 2 - WRIITING LEARNING OUTCOMES https://www.nottingham.ac.uk/teaching/documents/guidance/lo-guidance.pdf

b) know that there are very important tools to help define learning outcomes, such as Bloom´s taxonomy (figure 6).

BLOOM'S TAXONOMY

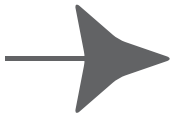
	COGNITIVE LEVEL	ACTION VERBS	CONCRETE TASK
LOVER LEVEL	Knowledge	List, match, tell label, name, locate, memorize, repeat	Recall or recognize information, usually in the same way it was learned
	Comprehension	Describe, explain, summarize, restate, identyfy, translate	Translate or interpret prior learning
HIGHER LEVEL	Application	Solve, classify, demonstrate, dramatize, manipulate	Independently apply the knowledge or skills learned
	Analysis	Debate, compare, differentiate, separate, group, research	Separate, examine, and draw conclusion from information
	Synthesis	Create, produce, reconstruct, arrange, pretend, assemble, organize, blend, generate	Combine information and apply it to a new situation in order to solve a problem
	Evaluation	Assess, justify, rate, revise, defend, support, priorize	Make qualitive and quantitive assessments using specific criteria

Figure 6. Bloom Taxonomy

- Methods/Methodologies for the development of the lesson, which integrate different pedagogical methods and techniques (see Manual). On the other hand, each method or technique selected must be accomplished by one or several activities or tasks to be carried out by the student.
- Communication resources, both human and mediated by technology: videos, picture, power point, interactive whiteboards, etc.
- Evaluation, instruments and modalities: summative, formative or both and typology of feedback.

III - After the Lesson

It is very important to reflect on how well both the plan and the lesson were accomplished: a SWOT analysis can help by identifying the Strengths, Weaknesses, Threats and Opportunities of or implicit in each method. It is very important to plan, if appropriate, improvement strategies for the future.



Handout 10: Lesson Plan Form

Module 1, Task 8

LESSON PLAN FORM

General Characterization

Course:

Unit/Topic:

Lesson Title

Lesson Duration:

Learning Outcomes	*Contents*	*Methods*	*Activities*	*Resources*	*Assessment*

Learning Outcomes	*Contents*	*Methods*	*Activities*	*Resources*	*Assessment*

6.2. Module 2 – Hands-on experience with learner-centred teaching

Rationale:

This module offers participants an opportunity to enrich their knowledge on a selected set of learner-centred methods (problem-based learning, task-based learning, discovery learning, project-based learning and learning contracts) and develop their skills in incorporating these methods into their classrooms. Participants will get hands-on experience on planning lessons which integrated the specified methods and will challenge their views on how teaching and learning is organised in the learner-centred classrooms.

Aims of the module:

- to get acquainted with a selection of learner-centred methods;
- to explore ideas on how the methods could be implemented in the classroom;
- to get hands on experience with lesson planning with a focus on the implementation of a specific methods.

Outcomes:

By the end of the module participants will have:

- become aware of the characteristics of a set of learner-centred methods;
- reflected on the benefits of using these methods in their classrooms;
- gained practical skills on planning lessons which incorporate the set of learner-centred methods.

TASK ONE: Problem-based learning

Aims:

- to focus participants' attention to the characteristics and essential features of problem-based learning.

Materials / Resources:

Handout 1 – Problem-based learning

Preparation:

Photocopies of Handout 1 (one for each participant)

Time: 20 minutes

Procedure:

1. Start the session by telling participants that they are going to get acquainted with a selection of different methods that are used in learner-centred instruction.
2. Divide the participants into two big teams with equal number of players and give each team an equal amount of spaghetti. Tell the group that they should build the highest tower possible within the limit of 7 minutes.
3. Invite the teams to reflect on the steps they used while coping with the task of tower building. Ask them to discuss also the role of the teacher and the roles of the "learners" in this activity. Invite them to think about the following questions:
    - *What were you asked to do?*
    - *How did you approach the problem?*
    - *How did you find a solution?*
    - *How did you build the tower? Any roles in the team?*
    - *Why is it necessary to present your model to the rest of the participants?*
    - *What are the roles of the teacher and students?*
4. Groups report back by choosing a spokesperson and compare and contrast ideas. Tell the participants that they will check whether they are right or wrong by participating in the next tasks.
5. Give Handout 1 to the participants and ask them to read the questions.
6. Play the video. Allow time for answering the question after the participants have watched the video. If necessary, play the video again.
7. Invite participants to report back and discuss ideas in a plenary.

Answers:

1. *C (refer to the definition of PBL)*
2. *B – The role of the teacher is to pose a problem, ask questions and facilitate students efforts to investigate and communicate with each other while working on the problem.*
3. *D – Students have an active role and are expected to develop, explain and defend a solution to a problem.*
4. *A – A problem may not necessarily be well-defined. It could be puzzling as a sense of mystery triggers students' curiosity and engages them in inquiry.*
5. *B – PBL is not designed to support the development of rote learning, memorization and reproduction of information on a topic.*

Handout 1: Problem-based learning

Module 2, Task 1

Watch the video and choose the best answer.

1. **Problem-based learning is:**
   a) an education model that relies on the use of lectures and notes;
   b) an education model used only with adult learners;
   c) an education model that poses to students a question, a problem or a challenge and involves them to investigate and research possible solutions or answers;
   d) an education model that is led by the teacher and that relies on memorization of information and its subsequent testing.

2. **In a problem-based learning environment the roles of the participants are as follows:**
   a) the teacher is a source of knowledge which he/she transmits to learners who are passive recipients;
   b) the teacher is a facilitator who makes sure learners collaborate with each other and explore a problem, while students are actively involved in the inquiry process;
   c) the teacher's role is to selects topics of which he has expert knowledge and to present them to students who have to take notes;
   d) the teacher provides students with a plan of the steps they need to follow to solve the given problem and the students work together following the plan.

3. **Which of the following is NOT an advantage in PBL?**
   a) students cooperate to find a solution to a real-life problems;
   b) students step on their prior knowledge and skills;
   c) students are responsible for their own learning and take an ownership of it;
   d) students are required to do a minimum amount of work.

4. **Which of the following is NOT a criterion for a good problem situation?**
   a) It must be clearly structured and defined.
   b) It must be linked to the course curriculum.
   c) It must be authentic.
   d) It must involve students in collaborative research of information.

5. **Which of the following is NOT an instructional outcome of problem-based learning?**
   a) Learning important life skills.
   b) Memorising and reproducing required academic information.
   c) Learning inquiry skills.
   d) Learning to collaborate with peers.

TASK TWO: The Problem-based learning process

Aims:

- to raise participants' awareness on the stages of problem-based learning;
- to encourage participants to think about the possible mistakes that could be made in the implementation of PBL in the classroom.

Materials / Resources:

Handout 2 – The Problem-based learning process (1)

Handout 3 – The Problem-based learning process (2)

Preparation:

Photocopies of Handout 2 (one for each participant)

Photocopies of Handout 3 – The Problem-based learning process (2)

Time: 25 minutes

Procedure:

1. Tell the participants that they will focus attention to the stages of PBL. Give them Handout 2 and ask them to work individually.
2. When ready, invite the participants to compare their answers with a partner.
3. Check answers with the whole group and allow time for questions.

Answers:

Identify the problem – F

Explore pre-existing knowledge – C

Generate hypotheses and possible mechanisms – E

Identify learning issues – D

Self-study – G

Re-evaluation and application of new knowledge to the problem – B

Assessment and reflection on learning – A

4. Explain the participants the next task involves a much narrower focus on the stages as they will have to read the description of a sample lesson and try to identify what went wrong in each stage. Participants have to offer a solution on overcoming the identified issue. Give out Handout 3 and set a time limit of 10 minutes.

5. When ready, ask participants to form groups of 4 and discuss their ideas.
6. Check answers in a plenary.

Answers:

(1) ***Identify the problem*** *– The problem is not well-formulated. It is too general and in order to find a solution, students will have to explore many different areas (e.g. unemployment, the general situation on the labour market, opportunities for getting employed again, benefits for the unemployed, gender issues etc.).*

Proposed solution: Reformulate the problem. For example:

> *EASYJET IS COMING – WHAT WILL ADRIA DO? Adria Airways is Slovenia's national carrier and has rich experience in charter and scheduled flights, while EasyJet is a low-fare European airline. Flying to London and back from Ljubljana with Adria Airways will cost you approximately 400 Euros, while flying with EasyJet on the same route can cost you as little as 20 Euros. How can Adria Airways survive against such strong competition?*

(The reformulated problem is excerpted from Jurković, V. (Ed.)(2005). Guide to Problem-Based Learning PBL within the Context of ESP. Ljubljana: Slovene Association of LSP Teachers, p. 18)

(2) ***Explore pre-existing knowledge*** *– The teacher must not intervene in the students' discussion by sharing his/her knowledge on the problem with them.*

Proposed solution: The teacher's role in the classroom at this stage is to make sure everyone contributes to the discussion and help by prompting questions which could keep learners on track.

(3) ***Generating hypotheses and possible mechanisms*** *– The teacher does not react to the fact that one of the students is passive.*

Proposed solution: The teacher provides the needed assistance so that the student openly expresses his/her ideas within the group.

(4) ***Identify learning issues*** *– Steven will have to research an issue which is not relevant to the learning needs of the team as they don't need information on the environmental effects of aviation to solve the problem which concerns the competition between the two carriers.*

Proposed solution: While monitoring the work of the teams, the teacher can discuss the distribution of tasks among the team members which will lead to the assignment of a new task to the student.

(5) ***Self-study*** *– The teacher doesn't have to intervene when that is not necessary. Sending them messages every day and checking their progress does not allow them to exert their autonomy.*

Proposed solution: If the teacher is willing to keep a record on the progress of students, he could do this in an unobtrusive way by asking one of the students to report on the progress and problems in the group.

(6) ***Re-evaluation and application of new knowledge to the problem*** *– The disagreement in one of the groups is an issue that is unexpected but quite possible.*

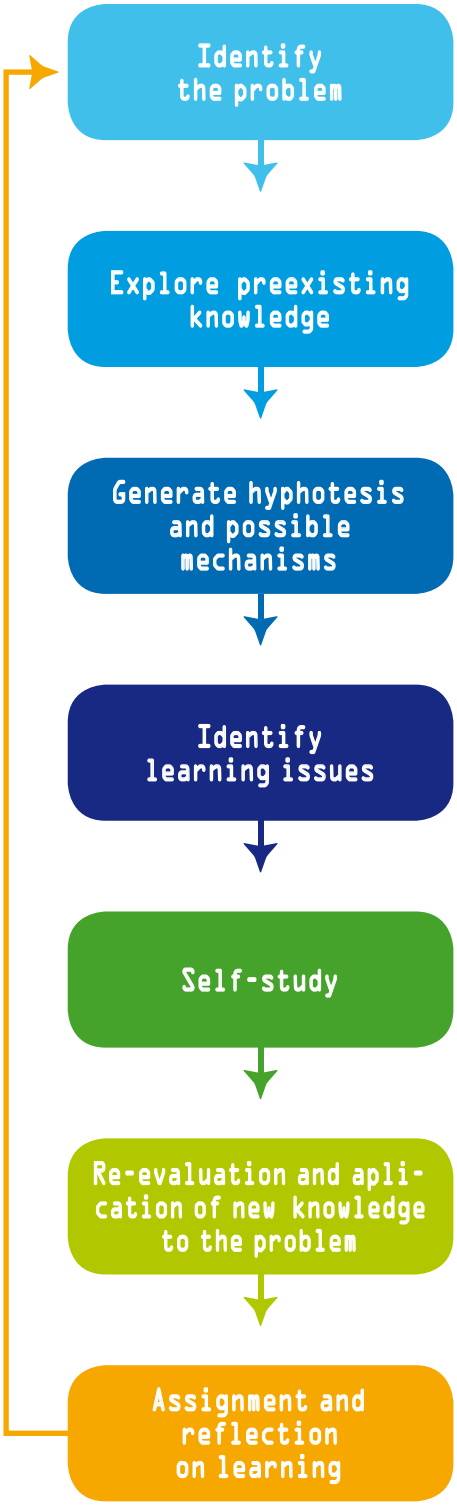
Proposed solution: The teacher should keep an eye on the groups and intervene. He helps them solve the conflict and try to reach an agreement.

(7) ***Assessment and reflection on learning*** *– The main aim of this stage is to allow students to reflect on their own learning as a result of the problem-based instruction.*

Proposed solution: Students are actively involved in the assessment. They fill in self-assessment checklists and peer-assessment checklists. They evaluate the quality of the presentation delivered by each group by using a presentation assessment form. The summary of the new learning helps consolidate the learning for future application.

Handout 2: The problem-based learning process (1)

Module 2, Task 2



Look at the steps of Problem-based learning and the give descriptions. Try to match tem.

A.	The group reconvenes after the members have spent time learning about the issues identified earlier. It is at this time that the new knowledge and understanding is applied to the original problem, and the tutor is handed the challenge of ensuring that the students are actively engaged and working with the new knowledge.
B.	At this stage students review on the learning achieved and give each other feedback about contributions to learning and groups process, and evaluation of how the group is working together.
C.	Students consciously assess their own prior understanding. Tutors need to ensure that all students participate in this step, and also to help the group consider critically the information that is brought forward by its members.
D.	At this point, it will have become clear to students what their learning issues are, both as a group and as individuals. It takes considerable work on the part of the tutor to help an inexperienced group come up with clear learning issues, formatted into focused questions, which again related back to the overfill objectives for the problem. These questions will be the basis of the students' search for resources and information.
E.	Based on the discussion which has gone before, students then generate hypotheses about the nature of the problem, including possible mechanisms. The aim is to have students focus on understanding the key concepts which are illustrated by each problem, and this requires that they delve deeper in it. The adept tutor will ensure that all students are engaged in this step, and that hypotheses that are generated can be related to the learning objectives of the problem.
F.	The students read through the problem and identify it. They may be tempted to "diagnose" the problem right away, and need to be encouraged to think more deeply about all the "why's, how's, and when's".
G.	Students have to contribute to the work of the group and for the purpose of this they will have to look for relevant information in different sources – reading books, browsing the Internet, reading journals etc. They can also perform and out-of-class research (e.g. interviewing experts in a field, people who are involved in some kind of enterprise etc.)

Based on Walsh, A.(2005) *The Tutor in Problem Based Learning: A Novice's Guide*, McMaster University.

Handout 3: The problem-based learning process (2)

Module 2, Task 2

Read the description of each of the stages of the PBL process in a sample lesson. Decide what went wrong in each case. Offer a solution.

(1) Identify the problem

Students meet the problem for the first time. The teacher poses the following problem to students:

Adria is Slovenia's national carrier and has rich experience in charter and scheduled flights. It has to survive against the strong competition of other airlines. What should it do?

Students form groups of 5 and start to formulate questions that will help them break down the problem into manageable tasks (e.g. *Which companies compete with Adria?, Which are they challenges to Adria?; Which are the aspects that need to be improved?, What do the customers think of Adria's prices and service?* etc.). But these questions are too general and they cannot get to the main problem.

(2) Explore pre-existing knowledge

Students share information on what they know about the problem. One of them is assigned the role of a secretary and she records the suggested ideas. The teacher stops their discussion and starts sharing this knowledge with them insisting that it is noted down by the secretary.

Students structure their ideas on the problem. They use logical thinking to find links between the ideas, to structure and organise their knowledge.

(3) Generate hypotheses and possible mechanisms

Students generate hypotheses about the nature of the problem. They write down what other reasons could there be for passengers flying from Ljubljana to London for 20 Euros and why can EasyJet afford to offer flights that cost 20 Euros. All students are actively engaged in this step, but one of the students is just listening and not saying anything. The teacher does not do anything.

(4) Identify learning issues

The students think about answers to the following questions:

- *What do we have to produce?*
- *What do we need to learn in order to be able to produce such an outcome?*
- *How are we expected to demonstrate the results of our research?*
- *What kind of information do we need in order to carry out our task?*

The students define their learning aims in relation to the outcomes and agree on the roles that they will have. For example: Peter will make a research on the history of the two airlines and discover about the history of low-fare carriers in Europe. Margaret will find and collect statistical information about the two airlines and about the offers they make to their passengers. Silvia will research the costs of the airlines. Soren will contact the public relations office of Adria and will interview him about the costs charged to the airline. Robert will research on the environmental impact of aviation.

(5) Self-study

Students work individually on the assigned tasks and research the specific aspect of the problem as agreed preliminary. The teacher checks every day if students have any problems with the inquiry and in this way also controls their progress.

(6) Re-evaluation and application of new knowledge to the problem

The members of the group gather together and present to each other the results of their inquiry. They discuss the findings, the proposed solutions but in one of the groups there is some disagreement and they cannot agree on which the best solution is.
The groups present their solutions to the class. The whole class debriefs the solutions, discusses the pros and cons of each one and votes on the best one on the basis of preliminary set criteria.

(7) Assessment and reflection on learning

The teacher assesses the work of the groups and of each student on the basis of clear criteria. He provides comments and suggestions for improvement.

Based on Jurković, V. (Ed.)(2005). Guide to Problem-Based Learning PBL within the Context of ESP. Ljubljana: Slovene Association of LSP Teachers, pp. 18–45

TASK THREE: Problem-based learning lesson planning experience

Aims:

- to develop participants skills' for planning a problem-based lesson suited to their own teaching context

Materials / Resources:

Handout 10 – Lesson plan form (from Module 1)

Preparation:

Time: 20 minutes

Procedure:

1. Participants work in groups and prepare the skeleton of a lesson which integrates the task-based method in the classroom.
2. The trainer asks each group to present their ideas and comments of the positive aspects of the lesson plan and on the aspects that need further improvement.

For further illustration of the ways to integrate the Problem-based learning method in the classroom refer to the Interesting Practice section.

TASK FOUR: Task-based learning

Aims:

- to allow participants to experience a task-based lesson;
- to encourage participants to reflect on the task-based lesson experience and identify the characteristic elements and the key stages of task-based learning;
- to focus participants' attention on the characteristics and types of tasks;
- to explore the steps of task-based learning.

Materials / Resources:

Handout 4 – Task-based learning

Handout 5 – Types of tasks

Handout 6 – Task-based learning lesson stages

Preparation:

Photocopies of Handout 4 (one for each participant)

Photocopies of Handout 5 (one for each participant)

Photocopies of Handout 6 (one for each participant)

Time: 30 minutes

Procedure:

Note: In this session students will get first-hand experience in task-based learning as they will take part in a task-based lesson. They will use this experience to discover the characteristics features of the approach and the stages of task-based learning lesson design.

1. Start the session by telling the participants that you are going to show them a photograph of you from 10 years ago. Ask them to suggest what will be different. Then show the photo to the participants. Invite them to give you answers to the question: "What else do you think was different about my life then?". Encourage them to give more comments and suggestions, but don't tell them if they are right or wrong. Tell them that they will find out about this later.
2. Ask participants to form groups of 3. Tell them to think about their life 10 years ago. Write the following questions on the board:

    - *What did you look like?*
    - *What was different about your life?*
    - *Did you have different likes and dislikes? Different hobbies?*
    - *Are you very different now?*

Give the participants a time limit of 3 to 5 minutes to discuss the questions. Monitor the ways in which the groups work and listen to their answers.

3. When the allocated time is over, stop the task. Tell the participants that they will have to work together to prepare a summary of their discussion to the whole class. They must take down notes when working on the summary but they must report it orally to the whole class.
4. When the students are ready, a spokesperson from each group reports. The rest of the groups listen. At the end of the reports, they have to decide the members of which group have changed the most in the past 10 years.
5. Draw students' attention back to the photo of you on the board and explain that you are going to ask them to listen to your summary. Read the text or play it (if you have recorded it previously). Ask students some comprehension questions about what they heard (e.g. *What did I say about my job?, What did I say about my friends*? etc.)

6. Choose two or three sentences from your text which contain "used to" and write them on the board. For example:

    - *I used to be a teacher.*
    - *I used to go out with friends every Friday night.*
    - *I used to wear leather trousers.*

Check if participants understand the meaning of these sentences. In order to do this, use concept "Yes-No" questions – e.g. *Did I go out with friends every Friday night? (Yes); Do I go out with friends every Friday night? (No).*

Elicit the rules for using "used to" or explain them to the participants – e.g. *used to + infinitive / didn't use to + infinitive*

(Steps 1–6 in this session are part of a sample lesson on task-based grammar teaching) [8]

7. Tell participants to reflect on their experience in the session so far. Invite them to put on their 'teachers' hats'. Tell them that they have participated in a mini task-based learning lesson. Give them Handout 4 and ask them to complete the task. Participants work individually.
8. Check the answers with the whole group. Provide explanations where necessary and answer questions if any. (For more information on the criteria of tasks refer to section 6.2. Task-based learning).

[8] http://www.onestopenglish.com/grammar/grammar-teaching/task-based-grammar-teaching/ (Accessed 09-01-2018)

Answers:

A task:	✓
• Is a workplan (i.e. it is something the learners do, or carry out, using their existing language resources or those that have been provided by the teacher)	✓
• engages learners' interest	✓
• has a clear outcome for learners to achieve	✓
• engages cognitive processes (to complete the task learners use their cognitive processes – they list, order, sort, classify, analyse and/or summarise the available information)	✓
• involves a focus on meaning (i.e. learners use the target language in order to close some information gap)	✓
• involves real processes of language use (i.e. it represents real-life activities – asking for and giving directions, comparing and contrasting pictures, planning when and where to meet etc.)	✓
• provides opportunities for reflection on language use	✓

If necessary, you can share with participants the following questions:

- *Would the activity **engage learners' interest**?*
- *Is there a primary **focus on meaning**?*
- *Does it have a **clear outcome** for learners to achieve?*
- *Is success judged in **terms of outcome**? Is **completion** a priority?*
- *Does it relate to **real world** activities?*

The answers to all those questions should be "Yes" in order to have a good task.

9. Give the participant Handout 5. Explain the task and ask the participants that they have about 5 minutes to complete it individually.
10. When ready, ask the participants to compare their answers.
11. Check the answers with the whole group.

Answers:

a) Listing
b) Ordering and sorting
c) Comparing
d) Problem solving
e) Sharing personal experience
f) Creative tasks/Projects

12. Draw participants' attention to the start of the session. Tell them that there are different classification of TBL lesson stages but that you will examine only one of them. Give participants Handout 6 and ask them to work individually.

13. When students complete the task, invite them to share their ideas by forming groups of 4.
14. Invite spokesperson to report on the ideas in the group. The rest of the groups compare and add to the ideas. You can also show them your suggestions of the tasks in the Task based stage.

Possible answer:

- ***Task preparation***
  The teacher sets a task: "Think of a story that could have the title: Cat's feat". Learners brainstorm vocabulary they will need to use and plan their stories individually.
- ***Task realisation***
  Students write their stories. Then in groups of 4 they exchange their stories and produce one group story.
- ***Report***
  Groups present their stories to the class. The class has to listen carefully and answer the question: "Do you have similar themes in your stories?"

15. Summarise the session by pointing that participants will have the chance to plan their own TBL lessons in the next session.

Handout 4: Task-based learning

Module 2, Task 4

Read the text.

Task-based learning is an approach that is associated with language learning. It grows out of the Communicative language teaching as a result of the awareness of educationalists that language teaching should be relevant to students' needs and that it should provide opportunities for language use in the classroom.

The TBL rests on the following theoretical principles:

- Tasks are the units of syllabus organization as they define what outcomes should be achieved through language rather than the language items themselves.
- "Learning will be effective only when it is related to language use and involves relating form and meaning" [Carter and Nunan, 2001:176].

One of the possible definitions of a task is proposed by Rod Ellis (2003):

A task is a workplan that requires learners to process language pragmatically in order to achieve an outcome that can be evaluated in terms of whether the correct or appropriate propositional content has been conveyed. To this end, it requires them to give primary attention to meaning and to make use of their own linguistic resources, although the design of the task may predispose them to choose particular forms. A task is intended to result in language use that bears a resemblance, direct or indirect, to the way language is used in the real world. Like other language activities, a task can engage productive or receptive, and oral or written skills, and also various cognitive processes. [Ellis, 2003: 16]

Put a tick (✓) next to the statements that refer to the characteristics of tasks.

A task:	
• Is a workplan (i.e. it is something the learners do, or carry out, using their existing language resources or those that have been provided by the teacher)	
• engages learners' interest	
• has a clear outcome for learners to achieve	
• engages cognitive processes (to complete the task learners use their cognitive processes – they list, order, sort, classify, analyse and/or summarise the available information)	
• involves a focus on meaning (i.e. learners use the target language in order to close some information gap)	
• involves real processes of language use (i.e. it represents real-life activities – asking for and giving directions, comparing and contrasting pictures, planning when and where to meet etc.)	
• provides opportunities for reflection on language use	

Handout 5: Types of tasks

Module 2, Task 4

Read the examples and the definitions of six types of tasks. Try to identify the tasks.

1. _____ – these tasks may seem unimaginative but they involves students in using the language to:
    a) brainstorm – students draw on their knowledge and experience as individuals and as a group;
    b) find facts – students find facts by asking and answering questions, interacting with other people.

Example: List all people in a family.

2. _____ - these tasks involve four main processes:
    - sequencing items, actions or events in chronological order;
    - ranking items on the basis of different criteria;
    - categorising items in groups;
    - classifying items in different ways.

Examples: Look at the four pictures. They are mixed up. Work in pairs. Put the four pictures in a sequence so that they tell a story. Prepare to tell your story to another pair.

3. _____ – these tasks compare information from different sources in order to identify common features or differences.

Examples: Compare your stories; Compare the lists of famous people you have prepared. Do you have any people in common. Tell each other why you chose them.

4. _____ – these tasks place a demand on peoples' intellectual and reasoning skills. They are challenging and engaging and satisfying to solve.

Examples: Imagine that you live in a town in which there is a lot of traffic in the town centre. Think of three possible solutions with a partner. List the advantages and disadvantages of the proposed solutions. Decide which will be the cheapest one, the most innovative one and the most environmentally friendly. Report your decisions to another pair and discuss which will be the best solution you could share with the government.

5. _____ – these tasks encourage learners to talk more about their personal life and experiences.

Examples: Draw your family tree and share it in a small group.

6. _____ – these tasks are often called projects and involve learners in creative work. Sometimes they involve research performed out of the classroom.

Example: Plan a night out with your friends; Make a project on the topic: "The types of music students in our class like"; Look at the pictures and write a story. Think of the name of the characters, their age, marital status, professions, and relationships of the people.

Based upon Willis, D. & J. Willis. 2007. Doing Task-based Teaching. Oxford University Press.

Handout 6: Task-based learning lesson stages

Module 2, Task 4

Read the description of the three stages of a TBL lesson.

In her book 'A Framework for Task-Based Learning' (1996) Jane Willis outlines a model for planning task-based lessons. She suggests the following three stages:

- **Pre-task stage** prepares learners for the tasks; involves exploration of a picture, watching a video clip, looking at a text, brainstorming, activating language etc.)
- **Task cycle stage** (Task Preparation > Task realisation > Report) – learners prepare their own input on the tasks (e.g. plan a report, rehearse a role play, etc.) and present / perform / produce them (e.g. producing a poster, giving a presentation, having a debate etc.)
- **Language Focus and Feedback – focus on language form**

Read the stages of a TBL lesson. Think what tasks you can include in the Task stage and fill in the table.

Pre-task and preparation	The teacher starts the lesson by telling students she has a cat. She introduces the Newspaper News in Brief text and gives its title: "Cat's feat". The teacher writes the new word – *feat* on the board and gives a dictionary definition of it: "A feat is an impressive and difficult act or achievement". She illustrates the meaning in a sentence: *e.g. He received a medal for his heroic feat. The construction of this bridge was a brilliant feat of engineering.*
Task stage	**Task preparation**
	Task realisation
	Report
Post task	**Language focus** Students listen to the original story. The teach asks them to look at the transcript and take out 6 phrases with the word *that (e.g. That's amazing!: That's funny, actually the other day …!"* *Students have to find similarities between the phrases and think how to categorise them in 2 or 3 possible ways.* Students report to the class. The teacher focuses learners' attention on the structure of the phrases with *that*.
	Feedback Reflection upon task realisation – e.g. *Was it useful?, Was it enjoyable?* Language reflection and possible further input - *Further exploitation of material for language, Error correction, Reflection by learners*.

TASK FIVE: Task-based learning lesson planning experience

Aims:

- to develop participants skills' for planning a task-based lesson suited to their own teaching context.

Materials / Resources:

Handout 10 - Lesson plan form (from Module 1)

Preparation: -

Time: 20 minutes

Procedure:

1. Participants work in groups and prepare the skeleton of a lesson which integrates the task-based method in the classroom.
2. The trainer asks each group to present their ideas and comments of the positive aspects of the lesson plan and on the aspects that need further improvement.

For further illustration of the ways to integrate the Task-based learning method in the classroom refer to the Interesting Practice section.

TASK SIX: Discovery learning

Aims:

- to get participants acquainted with the characteristic features of discovery learning.

Materials / Resources:

Handout 7 – A discovery based learning case

Handout 8 – Discovery learning

Preparation:

Photocopies of Handout 7 (one for each participant)

Photocopies of Handout 8 (one for each participant)

Time: 30 minutes

Procedure:

1. Start the session by asking participants the question: "What can you put in a hole in a wall and why?". Invite the participants to form groups of 5 and brainstorm possible ideas.
2. Ask groups to report by choosing a spokesperson. Don't reveal why you have asked that question. Tell the participants they will be able to compare their ideas with the idea of a man in India.
3. Give them Handout 7 and invite them to read the text.
4. When ready, ask the participants to share what they feel about this idea. Ask them to speculate how the children learned to use the computer. Look for key words (e.g. *discovery*) to introduce the idea of discovery learning.
5. Divide participants into two big groups – A and B. Give Handout 8 and ask them to work on it.
6. After participants complete the tables, ask them to form pairs (one member of group A and one member of group B). Participants compare answers and fill in the missing information in the table.
7. Get feedback from each group and invite comments and contributions from the other groups.

SAMPLE ANSWERS

QUESTIONS	ANSWERS
WHO PROPOSED DISCOVERY LEARNING AND WHEN?	Jerome Bruner
WHICH THEORETICAL FRAMEWORK STANDS BEHIND DISCOVERY LEARNING?	Constructivist theory
WHAT IS THE ROLE OF STUDENTS?	Active learners who solve problems, rely on their prior knowledge to construct new knowledge
WHICH ARE THE KEY CONCEPTS USED IN THIS METHOD?	Scaffolding, guided discovery, pure discovery
WHAT TYPES OF DISCOVERY LEARNING ARE THERE?	Guided discovery, pure discovery
WHAT EFFECT DOES IT HAVE ON STUDENTS?	**Skills** to identify a problem, search for relevant information, formulate hypotheses and develop solution strategies, collaborative learning. **Attitudes** curiosity, tolerance to ambiguity, open mindedness, patience, awareness of and appreciation of alternative viewpoints.

Handout 7: A discovery based learning case

Module 2, Task 6

Read the text and compare what the man put in a hole in the wall and why with your suggestions.

Sugata Mitra has a PhD in physics and heads research efforts at New Delhi's NIIT, a fast-growing software and education company with sales of more than $200 million and a market cap over $2 billion. But Mitra's passion is computer-based education, specifically for India's poor. He believes that children, even terribly poor kids with little education, can quickly teach themselves the rudiments of computer literacy. The key, he contends, is for teachers and other adults to give them free rein, so their natural curiosity takes over and they teach themselves. He calls the concept "minimally invasive education."

To test his ideas, Mitra 13 months ago launched something he calls "the hole in the wall experiment." He took a PC connected to a high-speed data connection and imbedded it in a concrete wall next to NIIT's headquarters in the south end of New Delhi. The wall separates the company's grounds from a garbage-strewn empty lot used by the poor as a public bathroom. Mitra simply left the computer on, connected to the Internet, and allowed any passerby to play with it. He monitored activity on the PC using a remote computer and a video camera mounted in a nearby tree.

What he discovered was that the most avid users of the machine were ghetto kids aged 6 to 12, most of whom have only the most rudimentary education and little knowledge of English. Yet within days, the kids had taught themselves to draw on the computer and to browse the Net. Some of the other things they learned, Mitra says, astonished him.

[He shares the following on another experiment he performed:] ...

“I tried another experiment. I went to a middle-class school and chose some ninth graders, two girls and two boys. I called their physics teacher in and asked him, "What are you going to teach these children next year at this time?" He mentioned viscosity. I asked him to write down five possible exam questions on the subject. I then took the four children and said, 'Look here guys. I have a little problem for you.' They read the questions and said they didn't understand them, it was Greek to them. So I said, "Here's a terminal. I'll give you two hours to find the answers."

Then I did my usual thing: I closed the door and went off somewhere else.

They answered all five questions in two hours. The physics teacher checked the answers, and they were correct. That, of itself, doesn't mean much. But I said to him, "Talk to the children and find out if they really learned something about this subject." So he spent half an hour talking to them. He came out and said, "They don't know everything about this subject or everything I would teach them. But they do know one hell of a lot about it. And they know a couple of things about it I didn't know."

From http://www.greenstar.org/butterflies/Hole-in-the-Wall.htm (Accessed 10-03-2018)

Handout 8: Discovery learning

Module 2, Task 6

Group A: Read the text and fill in the table with the available information. Exchange your information with your partner and fill in the missing answers.

Discovery learning is an active learning approach that is based on the constructivist theory. It was originally proposed by Jerome Bruner (1915–2016) while he worked with the National Science Foundation in the USA in the 1960s and 1970s on the design of a science curriculum. Bruner believed that real learning took place only when "students become problem solvers" [Conclin and Stix, 2014: 179} since they would remember better the concepts, models or new knowledge they had discovered themselves. Therefore, according to him learners need to rely on their prior knowledge to discover new information about the surrounding world through the manipulation of objects, exploration of the environment and by conducting different experiments.

A key concept that is proposed by Bruner (1978) and that is related to discovery learning is ***scaffolding***. Similarly to the scaffolding of a building, the teacher provdies support to the learners when needed so that they "can concentrate on the difficult skill … [they are] in the process of acquiring" [Bruner, 1978 in Dörner, Göbel, Kickmeier-Rust, Masuch and Zweig, 2016: 194]. The teacher's support is in the form of hints and/or prompts but he/she does not give students ready answers or instructions on how to find the answers.

The essential phases of **guided discovery learning** are not much different from the phases of PBL. The reason for this resemblance is that discovery learning "is often used as an 'umbrella term' to refer to teaching and learning methods such as inquiry based, problem-solving … method[s] of instruction" [Phillips, 2014: 236].

Discovery learning is an essential asset of the learner-centred methodology since it facilitates the development of students' **skills** to identify a problem, search for relevant information, formulate hypotheses and develop solution strategies which are justified and based on certain evidence. Since discovery learning is generally a collaborative process, students also develop their communication skills and skills for working in a team.

Questions	Answers
Who proposed discovery learning?	
Which theoretical framework stands behind discovery learning?	
What is the role of students?	
Which are the key concepts used in this method?	
What types of discovery learning are there?	
What effect does it have on students?	

Handout 8: Discovery learning

Module 2, Task 6

Group B: Read the text and fill in the table with the available information. Exchange your information with your partner and fill in the missing answers.

Discovery learning is an active learning approach that is based on the constructivist theory. It was originally proposed by Jerome Bruner (1915–2016) while he worked with the National Science Foundation in the USA in the 1960s and 1970s on the design of a science curriculum. Bruner believed that real learning took place only when "students become problem solvers" [Conclin and Stix, 2014: 179} since they would remember better the concepts, models or new knowledge they had discovered themselves. Therefore, according to him learners need to rely on their prior knowledge to discover new information about the surrounding world through the manipulation of objects, exploration of the environment and by conducting different experiments.

Interaction between students and the tutor is an essential element of discovery learning. The teacher provides the materials and the tasks which involve learners in asking questions and searching for answers, in deriving principles, in solving problems while discovering new knowledge. The learning materials, which have to be used, need to provoke "independent information processing that enable the learner to organize knowledge structures through generalization (by constructing schemata) … and [to have an effect on the] … transition from extrinsic to intrinsic motivation" [Seel, 2011: 490].

Due to the scaffolding some researchers (Tobin and Fraser, 1990; Champagne and Bunce, 1991 among others) make a difference between *discovery learning* and *guided discovery learning.* In fact the exploration of the similarities and differences in the two types of learning (Weimer, 2003; Hogan, Natasi and Presley, 1999) pinpoint that *guided discovery* is more productive than *pure discovery* since students stay more focused on the tasks under the teacher's scafollding and work more consistently to solve the respective problem.

An important aspect of discovery learning is the development of learners' **attitudes** such as curiosity, tolerance to ambiguity, open mindedness, patience, awareness of and appreciation of alternative viewpoints.

Questions	Answers
Who proposed discovery learning?	
Which theoretical framework stands behind discovery learning?	
What is the role of students?	
Which are the key concepts used in this method?	
What types of discovery learning are there?	
What effect does it have on students?	

TASK SEVEN: The steps of a guided discovery learning lesson

Aims:

- to provide an opportunities for participants to examine a ready lesson plan;
- to discover the steps of guided lesson planning and the aims of each step.

Materials / Resources:

Handout 9 – Safety in swimming

Handout 10 – Stages of guided discovery learning

Preparation:

Photocopies of Handout 9 (one for each participant)

Photocopies of Handout 10 (one for each participant)

Time: 25 minutes

Procedure:

1. Tell the participants that they will work with a ready lesson plan which incorporates guided discovery learning. Give Handout 9 and ask participants to get familiar with the steps of the lesson plan.
2. When ready, distribute Handout 10 and allow participants to work in pairs to complete the task.
3. When ready, ask participants to report. Allow the participants to add ideas to the discussion. Show them Figure 3 of section 6.3) to compare their answers.

Handout 9: Safety in swimming

Module 2, Task 7

Read the lesson plan and try to identify the stages of guided discovery learning.

Topic of the module: Safety in swimming and diving

Tutors: Josef Trna, Eva Trnova, *Masaryk University* (Czech Republic)

1. Scenario:

- **Read the story and think about it:**

Who is right?
Peter went cycling with his parents. At noon they came to a river. It was really hot and Peter was very sweaty and looked forward to cool down. He wanted to jump into the cold water immediately. His mother stopped him and told him he had to wait to cool down, because otherwise he could even get drowned. Peter laughed, thinking it was a superstition that parents tell their children, because they are afraid that they might catch a cold. But he is hardy and is not afraid of cold water.

Teacher's notes: Scenario (story) is used to motivate students and stimulate of problem situations, when students ask questions that they want to solve. A student should read a story in peace. The story concerns with the problem of vasoconstriction which is caused by sharp cooling down of the body.

2. Problems and questions:

- ***Carefully re-read the story and write down the questions that occur to you:***

(1) _____
(2) _____
(3) _____
(4) _____

Teacher's notes: All students have again carefully read the text of stories with a challenge to subsequently write their questions which occur to them during reading stories.

- ***If you have no ideas, you can use the following questions:***
  a) What properties of water can cause health risks or even death of a man?
  b) Which organs of the human body and why can be damaged during swimming and diving?
  c) What kinds of swimming and diving in the water are risky?
  d) Which rules of safe swimming and diving we follow?

Students answer individually to the questions and formulate hypotheses.

3. Tasks and experimenting

- ***Plan an experiment. Define the activities you will need to perform and the roles in your team.***

Students will do the following:

- Measure and write down temperature of air in the classroom.
- Measure the normal blood pressure in the left arm using a sphygmomanometer. Write down the result.
- Let the cuff on the arm – repeat the measurement again.
- Measure the temperature of cold water ready to cool the right hand classmates.
- Put the right arm into the bucket of cold water. Measure the pressure in left arm again. Once again write down the result.
- Compare the results and evaluate the condition of their vessels.

The students note down the results from the measurements in the table.

No	**Cold test of blood pressure**			
1	Room air temperature:		Left arm blood pressure:	
2	Cold water temperature:		Left arm blood pressure after cooling of right arm in water:	
3	Different of temperatures of air and water:		Difference of blood pressure:	
4	Results of measuring and observing:			

4. Formulation of an explanation

- ***In the left column of the table write down your suggestions and recommendations that in your opinion belongs to these stories.***

	My explanation on the basis of the data	**Correction and supplement after the discussion**
1		
2		
3		
4		

5. Closure

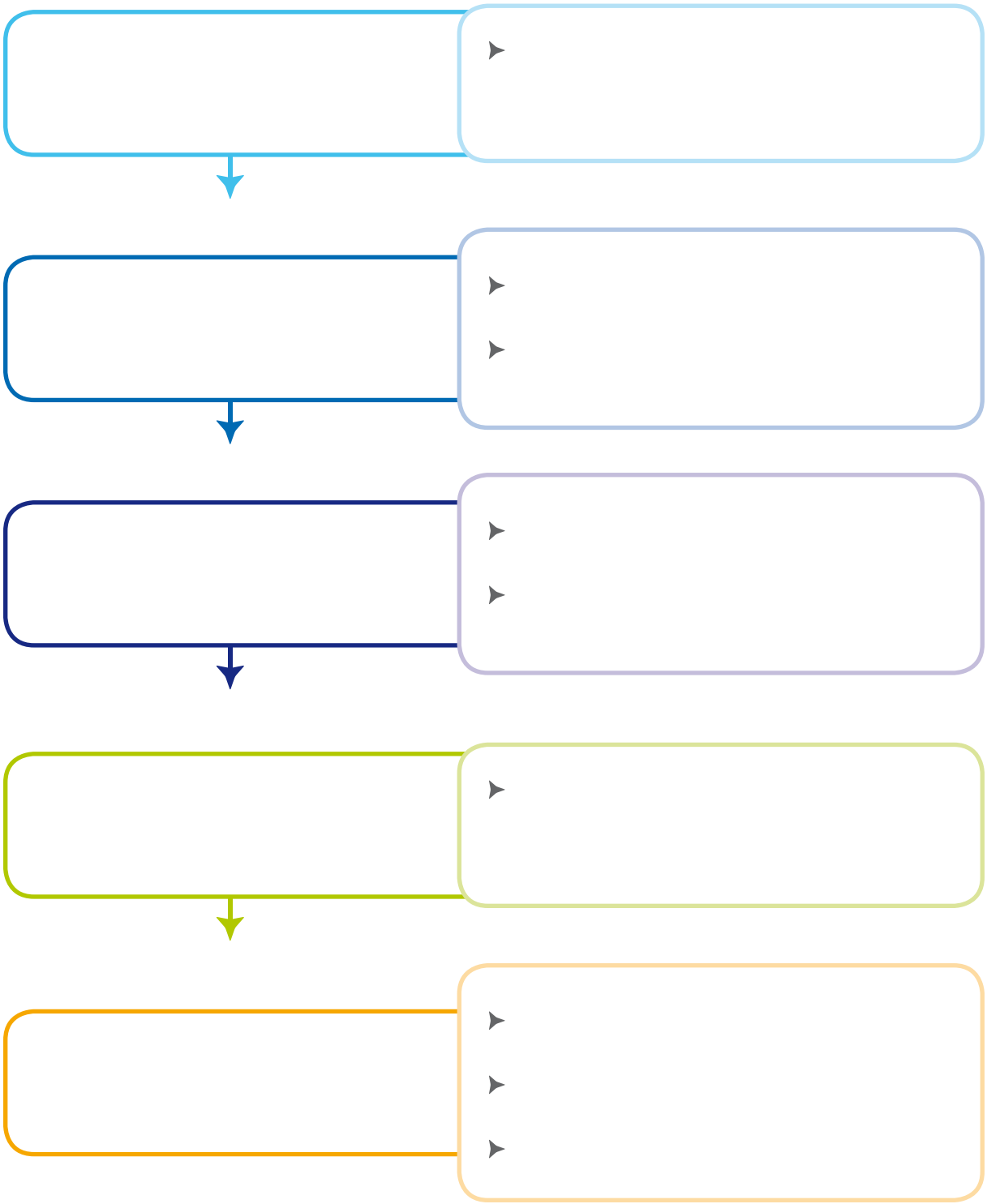
Students present their explanation and discuss them. During the discussion the students' conclusions are clarified and repaired.

Teacher's notes: During the lesson the teacher acts as a facilitator and material provider. He/She guides students

Handout 10: Stages of guided discovery learning

Module 2, Task 7

Fill in the stages of the guided discovery lesson on the basis of the sample lesson. Try do describe what students do in each stage.



TASK EIGHT: Discovery learning lesson planning

Aim:

- to develop participants skills' for planning a discovery learning lesson suited to their own teaching context.

Materials / Resources:

Handout 10 – Lesson plan form (from Module 1)

Preparation:

Time: 20 minutes

Procedure:

1. Participants work in groups and prepare the skeleton of a lesson which integrates the task-based method in the classroom.
2. The trainer asks each group to present their ideas and comments of the positive aspects of the lesson plan and on the aspects that need further improvement.

For further illustration of the ways to integrate the Discovery learning method in the classroom refer to the Interesting Practice section

TASK NINE: Project-based learning

Aims:

- to make participants aware of the characteristic features of Project-based learning;
- to establish a link between Project-based learning and Problem-based learning;
- to sensitise participants to the key stages of planning a Problem-based learning lesson.

Materials / Resources:

Handout 11a, 11b – Project-based learning vs. Problem-based learning

Handout 12 – Beliefs about Project-based learning

Handout 13 – Stages of a Project-based learning lesson

Preparation:

Photocopies of Handout 11a, 11b (one for each participant)

Photocopies of Handout 12 (one for each participant)

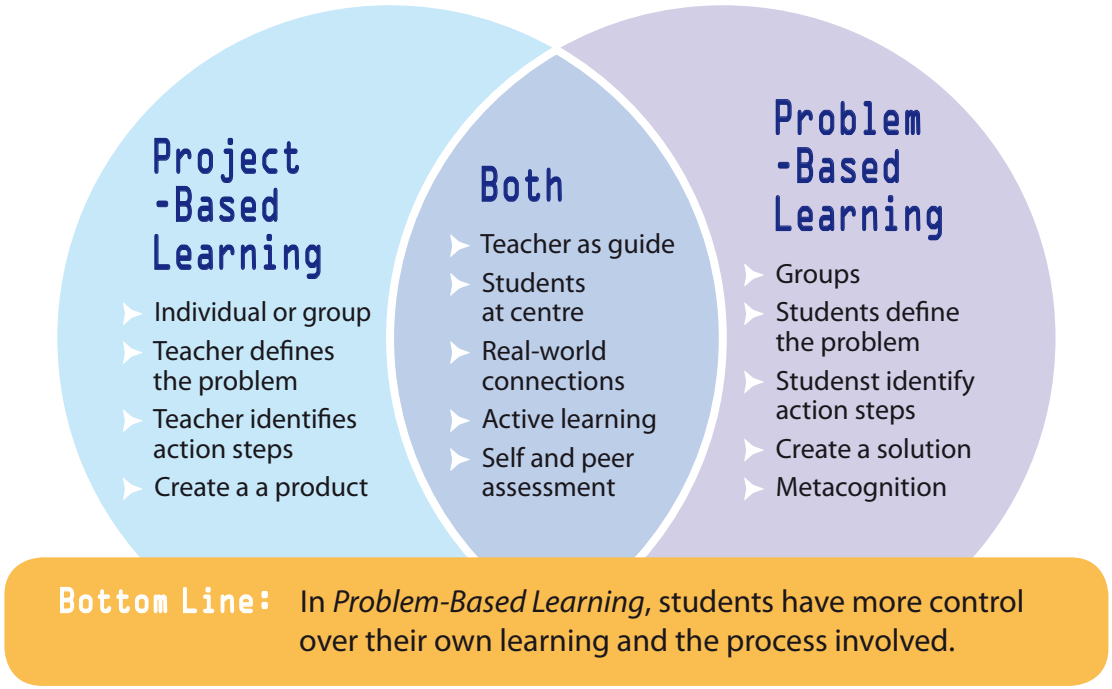
Photocopies of Handout 13 (one for each participant)

Time: 40 minutes

Procedure:

1. Start the session by asking participant to imagine that time and space have changed while they were sleeping and now, when they, wake up, its year 2050. Continue the story by telling them that they work in an advertising company and that they have been assigned a task to make a research on the new drug that has been produced and that promises long-life. They need to find out about the ingredients, the competitor companies, the former products and the advantages of this product. They have to make this research and produce a new marketing campaign for the product. Ask the participants to tell you what skills they will need to make this research.
2. Invite participants to form groups of 4. Set a time limit of 5 minutes and ask participants to report. The main skills that are expected to come out are: critical thinking, collaboration, creativity, and innovation. Use them to provide a link to problem-based learning by pointing out that if they have participated in problem-based learning activates at university, the research would not be a problem.

3. Tell the participants that they will watch a video which will present to them the main features of project-based learning. Set the following questions:
    - *Do you find any similarities or differences between problem-based learning and the other learner-centred methods discussed so far?*
    - *Which are these methods? And what similarities or differences do you find?*
4. Ask participants to report. Most probably they will notice similarities between the project-based learning and the problem-based learning. Listen to their ideas, allow the other participants to add and comment on the feedback provided.
5. Tell the participants that you will give them a text to read to check whether their arguments are correct and to add some more points. Give out Handout 10a. When the participants read the text, give them Handout 10b.
6. Participants work individually and you check the answers with the whole group in the form of a plenary.
   Answer:



From https://www.pinterest.com/pin/338544096970216466/ (Accessed 08-03-2018)

Figure 1. learning bases

7. Ask participants to check their beliefs about Project passed learning. Give out Handout 11 and set a time limit of 10 minutes.
8. Do not check the answers at this stage. Tell the participants that you will give them Handout 12. They have to read the text and revisit their beliefs.
9. When ready, ask participants for feedback. Comment on the beliefs in a plenary. All the statements should be given a tick in the first column.

Handout 11a: Project-based learning vs. Problem-based learning

Module 2, Task 9

Read the text and put the relevant headings in the figure below.

While the main features of Project-based learning (PjBL) may be identified within the literature, differentiating the approach from similar pedagogies such as Problem Based Learning (PBL) is challenging as there is considerable overlap in terms of educational philosophy and practice.

Problem-based learning is described as a learning cycle in which students initially encounter a problem (rather than first being given information); reasoning skills are then developed and learning needs identified with the staff support. This is followed by individual study and a cooperative phase in which the knowledge is applied to the problem. … Here students identify and seek the information needed rather than drawing on existing knowledge with which to explore the problem. A further noted difference between these approaches is the emphasis within the project approach on the creation of an artefact or product. Indeed Savin-Baden (2007) argues that the approaches are fundamentally different based on the task-orientation of Project-based learning and the tendency for parameters of the activity, if not the task itself, to be set by staff. Similarly, in the school context, Barron et al. (1998) differentiate between Problem-based learning as producing a plan or strategy, whereas Project-based learning requires the execution of the plan, such as the creation of a blueprint for and the construction of an actual community centre playhouse, rather than a simulated activity.

Some authors clearly accept that in Project-based learning the problem can be theoretical or practical. [Apart from that further differences include]:

- the teacher's roles as a supervisor in Problem-based learning and the role of the teacher as facilitator in Project-based learning;
- the greater emphasis on the provision of foundational knowledge by staff in Project-based learning, rather than student-directed learning in Problem-based learning.

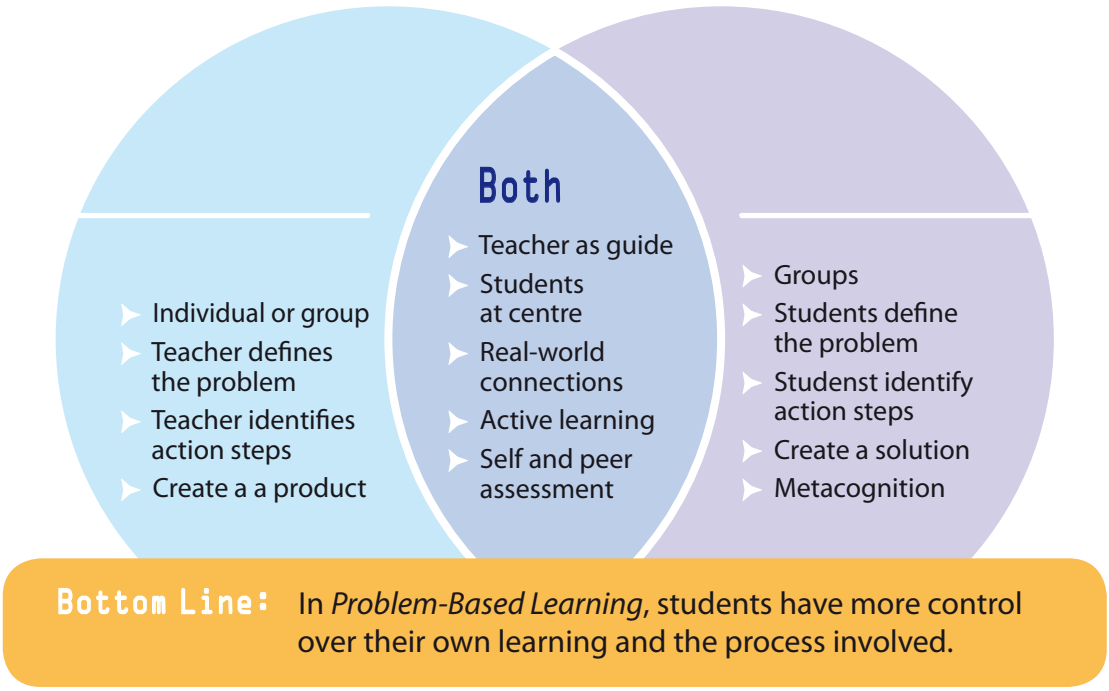
Problem-based learning is also often conceptualised as a sub-element of successful project-based learning. Here, the problem sits within the project and usually informs or drives the project. Placing the problem at the centre of the project is argued to be a means of retaining the open-ended and creative nature of enquiry which may be stifled by rigid project management protocols focused on achieving an end product.

Harmer, N. (2014). Project-based Learning (Literature Review), pp. 5–7 (online) https://www.plymouth.ac.uk/uploads/production/document/path/2/2733/Literature_review_Project-based_learning.pdf (Accessed 03-03-2018)

Handout 11b: Project-based learning vs. Problem-based learning

Module 2, Task 9

Fill in the gaps with the relevant terms – Project-based learning / Problem-based learning.



From https://www.pinterest.com/pin/338544096970216466/ (Accessed 08-03-2018)

Figure 1. Project-based learning / Problem-based learning

Handout 12: Beliefs about Project-based learning

Module 2, Task 9

Do you agree with the following statements? Put a tick (✓) in the relevant column.

DOES THE PROJECT?

	👍	👎	?
FOCUS ON SIGNIFICANT CONTENT At ist core, the project is focused on teaching students important knowledge and skills, derived from standards and key concepts at the heart of academic subjects.			
DEVELOP 21TH CENTURY SKILLS Students build skills valuable for today's world, such as critical thinking/ problem solving, collaboration, and communication, which are taught and assessed.			
ENGAGE STUDENTS IN IN-DEPTH INQUIRY Students are engaged in a rigorous, extended process of asking questions, using resources, and developing answers.			
ORGANIZE TASKS AROUND A DRIVING QUESTION Project work is focused by an open-ended question that students explore or captures the task they are completing.			
ESTABLISH A NEED TO KNOW Students see the need to gain knowledge, understand concepts, and apply skills in order to answer the Driving Questions and create project products, beginning with an Entry Event that generates interest and curiosity.			
ENCOURAGE VOICE AND CHOICE Students are allowed to make some choices about the products to be created, how the work, and how they use their time, guided by the teacher and depending on age level and PBL experience.			
INCORPORATE REVISION AND REFLECTION The project includes processes for students to use feedvack to cobcider additi- ons and changes that lead to high-quality products, and think about what and how they are learning.			
INCLUDE A PUBLIC AUDIENCE Students present their work to other people, beyond their classmates and teacher.			

From http://www.bie.org/images/uploads/useful_stuff/Essential_Elements.pdf
(Accessed 08-03-2018)

Handout 13: Stages of a Project-based learning lesson

Module 2, Task 9

Examine the stages of a PjBL lesson. Revisit your beliefs (Handout 11) and make any changes if necessary.

The main characteristics of these elements are presented by Larmer, Mergendoller and Boss (2015):

1) **Stage 1: Challenging problem or question** – a meaningful problem or a question is set at the attention of learners who have to find a solution or give an answer.
2) **Stage 2: Sustained inquiry** – students compile information that is necessary for them to find a solution to the problem or answer the question. They find relevant resources and utilize the information found.
3) **Stage 3**: **Authenticity** – the project is linked to a real-world problems which people could face in their everyday lives – e.g. a community council which has to take a decision about which factory in the region does most harm to the environment; a construction company which has to design a solid bridge over a river in a seismologic region etc. Some of the challenges present to students can be relevant to issues in their personal lives or concerns.
4) **Stage 4: Student voice and choice** – in order to plan and complete the project successfully, students have to make some choices regarding the design and implementation of their project (e.g. the questions to ask, the resources they select, the roles of the different members of the team and their responsibilities, the outcomes that will be produced).
5) **Stage 5: Reflection** – The students and their teacher can reflect on some of the aspects of the project while working on it or after the project end. The reflection may include the use of different instruments (e.g. learning portfolios, assessment sheets, discussions, presentations of the outputs and the process of creating them).
6) **Stage 6: Critique and revision** – students give and receive constructive feedback to the work of their peers; the feedback is used by learners to improve their project planning skills, their abilities to select and use a variety of learning materials, their skills for working in a team and their presentation skills.
7) **Stage 7: Public product** – students present their project outputs to their classmates. But they could also present the product to a wider audience (e.g. school authorities, parent, the local community council etc.).

These seven stages are directly linked to the key knowledge and skills of students because the purpose of project based instruction is to facilitate the development of active learners who are equipped with the capacities to be autonomous learners who are responsible for their own learning.

TASK TEN: Project-based learning lesson planning

Aim:

- to develop participants skills' for planning a project-based lesson suited to their own teaching context.

Materials / Resources:

Handout 10 – Lesson plan form (from Module 1)

Preparation:

Time: 20 minutes

Procedure:

1. Participants work in groups and prepare the skeleton of a lesson which integrates the task-based method in the classroom.
2. The trainer asks each group to present their ideas and comments of the positive aspects of the lesson plan and on the aspects that need further improvement.

For further illustration of the ways to integrate the Project-based learning method in the classroom refer to the Interesting Practice section.

TASK ELEVEN: Learning contracts

Aim:

- to familiarise students with the purpose, specific features and structural elements of learning contracts.

Materials / Resources:

Handout 14 – Learning contracts

Handout 15 – Learning contracts example

Preparation:

Photocopies of Handout 14 (one for each participant)

Photocopies of Handout 15 (one for each participant)

Time: 35 minutes

Procedure:

1. Start the session by telling participants that they have all signed various contracts in their life. Invite them to share with you what a "learning contract" means and what it could contain as essential elements.
2. Divide the participants in groups of 5 and ask them to brainstorm ideas. Groups should also come up with a definition of a learning contract.
3. Ask the participants to report back. The other groups compare the results.
4. Give out Handout 14 and ask participants to read it individually.
5. When ready, ask participants to go back to their initial suggestions.
6. Invite participants to share with you what changes they would make to their initial ideas and why.
7. Give out to participants Handout 15 and explain that it contains a sample learning contract. Invite participants to form groups of 4 and improve the learning contract.
8. Groups present their ideas in a plenary. Invite for comments and suggestions. Focus participants' attention to the fact that the learning contract has to contain information about the student (degree programme, year of study, faculty number) and that it should be signed by both the tutor and the student. Also pinpoint the need to include deadlines for each activity planned and that the learning contract and criteria for assessment of students' performance.

For further illustration of the forms of learning contracts refer to the Interesting Practice section.

Handout 14: Learning contracts

Module 2, Task 11

Read the text and revisit your initial ideas n the light of the information obtained.

A **learning contract** is a document which has the form of a written agreement between a student and a teacher. It specifies the particular activities to be undertaken by the learner for the achievement of specific goals. The use of learning contracts derives from the theoretical views of Malcolm Shepherd Knowles (1913–1997) about the education and training of adults. According to him adult learners possess the following characteristics:

1) **The need to know** – adult learners need to know why they have to learn something before they learn it. The awareness of the benefits of learning increases the motivation of learners as they will consciously invest time and efforts into it.
2) **The learners' self-concept** – Adult learners, who are mature individuals, perceive themselves as responsible people who take decisions and who self-direct their lives.
3) **The role of the learners' experiences** – learners can utilize the accumulated previous experience in the learning process. The fact that adult learners have lived longer than their younger counterparts allows them to have richer knowledge and skills in a variety of fields which they have gained as a result of the encounters in which they have participated or the problem solving activities in which they have been involved.
4) **Readiness of learner** – Adult learners have a clear idea of what they want to achieve in their lives, therefore, their readiness to learn in intertwined with their personal developmental goals.
5) **Orientation to learning** – The acquisition of subject matter is an essential aspect of learning. However, adult learners are interested in the practical implications of the subject matter, i.e. their orientation shifts from subject-centredness to learning-experience centredness.
6) **Motivation to learn** – Adult learners are motivated to learn because as "a person matures the motivation to learn is internal" [Knowles, 1984: 12].

The main proposition based on these characteristics is that students are autonomous learners who are responsible for their personal development and for the management of their own knowledge in response to their needs and interests. This is actually what makes **learning contracts** suitable to all programmes and courses. The main benefit of the application of this method in the classroom is the flexibility which it gives to the learners because it allows them to negotiate with the teacher the structure of the assignments, the quantity and the quality of the work to be done, the evaluation criteria

to be used. The focus, which is placed on the process of negotiation, is the reason why learning contracts are also called *negotiated learning agreements* [Anderson, Boud and Sampson, 2014: 3].

According to Anderson, Boud and Sampson (2014) the negotiated learning agreements start with a discussion of the roles, responsibilities and expectations of the student and the teacher. Traditionally learners are given an active role as they have to complete the specified activities. The role of the teacher is that of an advisor, a guide who gives support when necessary, who monitors students and who evaluates whether the initially set goals are met and the quality of the produced outcomes corresponds to the assessment criteria.

The design and the implementation of a learning contract passes through four stages:

- *Preparation* – in this stage the learner has to think about what he/she wants to learn or achieve during a specific course module, the whole course, a placement etc. He / She has to prepare his/her own learning objectives which have to be linked to the stated learning outcomes of the module, course, placement or specific learning event. Self-assessment may have a key role in this respect as it could give an objective feedback on the level of knowledge and skills that the students possesses and it could be used as means of deciding on the further development necessary.
- *Negotiation* – the processes in which the student and the teacher reach an agreement on the content of the learning contract and the evaluation of the knowledge, skills and competences, as well as on the learning process and final products.
- *Support* – once the learning contract is made operational, the teacher provides support to the learner with resources, advice or guidance.
- *Assessment* – the evaluation of the learning contract consisting of two parts. The teacher gives grades/marks for task completition and also the feedback on work habits and overall students´ approach to given tasks. Student, on the other hand, evaluates his/her work, since the self-evaluation is a neccessary part of the evaluation process.

It is of utmost importance that the learner and the teacher work cooperatively while negotiating the terms of the learning agreement. The presence of mutual respect is also a necessary condition for the successful term setting and completion of activities. Giving the learner the freedom to construct his/her learning contract while negotiating the terms and conditions with the teacher adds value to the learning contract as the learner feels an ownership to it and will be motivated to complete it successfully.

The **key characteristics** of a successful learning contract are summarized in Figure 1.

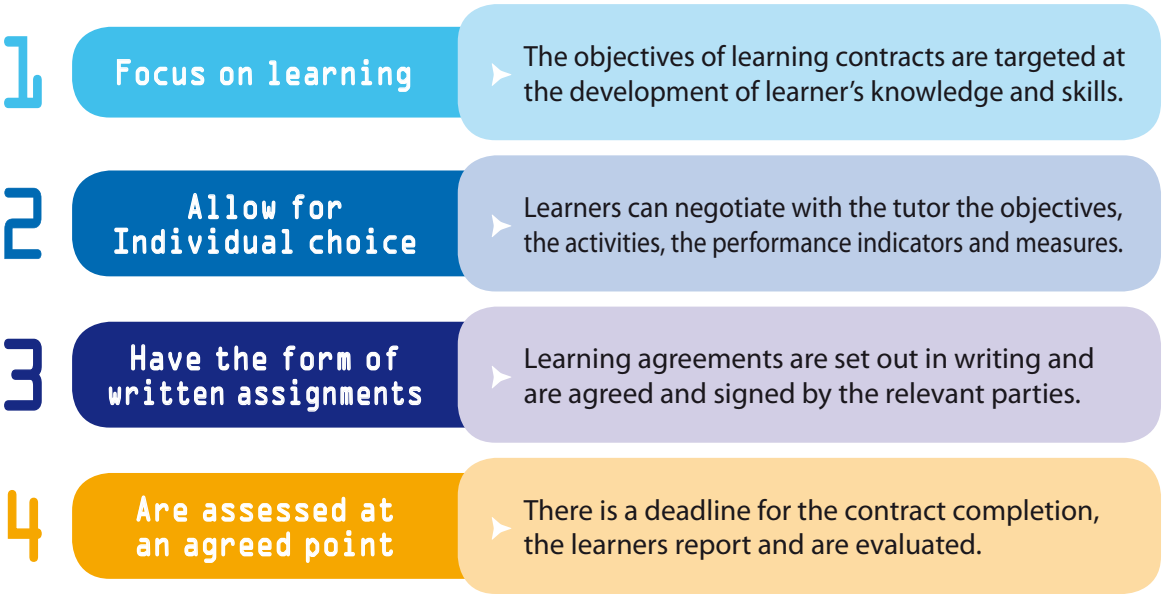


Figure 1. Key characteristics of a learning contract

Though learning contracts vary in terms of their layout and format, it is useful to provide some structural parameters. Typically a **learning contract** has the following sections:

- **Purpose** – a statement of the learner wants to achieve. This is generally the objective which the learner sets to himself/herself. The objective has to correspond to the learners' needs but it also has to correspond to the aims and scope of the degree programme or course. It could be also relevant to a workplace context when the learning gains some hands-on experience at a concrete organization.
- **Strategies and resources (required to meet the objectives)** – these are the materials or resources that the learner needs to collect and study, the people who he/she has to meet, the research that has to be conducted, the places that he/she has to visit etc.
- **Action plan** – the activities and the deadlines for meeting the objectives.
- **Evidence** (i.e. what will be produced) – the product (e.g. a report, a survey, an essay etc.) of the performed activities in order to reach the objectives or a demonstration of the skills obtained.
- **Evaluation criteria** – the criteria which will be used for the assessment of the quality of the work done.
- **Completion date.**

These sections are not necessarily a must but what is expected is that the learning contract is signed by the student and the course tutor. Thus, it really has the form of a contract and binds the two sides in doing their best to ensure that the learning process and its supervision will be successful.

Handout 15: Learning contracts example

Module 2, Task 11

Examine the learning contract. Will you change anything? What? Choose one of these learning contracts and improve it.

LEARNING CONTRACT EXAMPLE

Student's name:	Suzan Gates
Concepts still to master:	Multiplication of fractions, divisions of fractions
Chapter 6:	Fractions
Page numbers:	34-36; 42-44

ENRICHMENT CHOICES:

- Fraction computer games dealing with multiplication and division
- Create fraction problems for a learning center
- Teach a lesson on fractions she has mastered
- Write a book about fraction

CONTRACT RULES AGREED UPON:

- Must wait until teacher is finished with teaching lesson before interrupting for help
- Cannot distract other in the class who are working on regular assignment
- Can search on Internet for help to problems
- Must join the class instructions for the concepts and pages written above

SIGNATURES:

6.3. Module 3 – Assessment

Rationale:

This module places an emphasis on the role of assessment in the learner-centred classroom and provides participants with information about different types of assessment. It also allows the participants to be acquainted with the tools used in the learner-centred environment and improve their knowledge and skills on how to use these in their own classrooms.

Aims of the module:

- to raise awareness and systematise knowledge of the types of the principles and types of assessment;
- to develop skills in judging the appropriateness of different methods in learner-centred instruction;
- to develop the role of self-assessment in learner-centred teaching.

Outcomes:

By the end of the module participants will have:

- become aware of the importance of assessment in learner-centred classrooms;
- become aware of the importance of assessment of outcomes rather than of memorisation of knowledge;
- evaluated different types of assessment formats.

TASK ONE: Beliefs about assessment in learner-centred classrooms

Aim:

- to provide an opportunities for participants to explore beliefs about assessment in learner-centred teaching environments.

Materials / Resources:

Handout 1 – Beliefs about assessment in learner-centred environments

Handout 2 – Types of assessment

Preparation:

Photocopies of Handout 1 (one for each participant)

Photocopies of Handout 2 (one for each participant)

Time: 20–25 minutes

Procedure:

1. Start the session by asking participants to look at the picture and suggest a possible answer that could be filled in the bubble.

http://assessmentandlearning.weebly.com/differentiation/funny-but-true
(Accessed 01-02-2018)

2. Elicit possible answers and show them the original picture.

Point out that in the current sessions you will focus on assessment.

3. Give out Handout 1 and ask participants to fill it in individually.
4. Ask the participants to share their views in pairs. Explain that they should give reasons for their answers.
5. Participants report in a plenary. Allow for discussion and sharing of opinions.

Sample answers:

YES - 1, 2, 3, 5, 7, 8, 9

NO – 4, 6

6. Give the participants Handout 2. Ask them to work individually.
7. Elicit from participants that formative assessment is the better option from summative assessment and add that assessment could also be informal.

8. Focus participants' attention on the importance of a balanced approach to assessment.

Formative assessments are the ongoing, minute-by-minute, dayby-day classroom assessments administered in the course of a unit of instruction. The intent is to identify individual strengths and weaknesses, assist educators in planning subsequent instruction, and aid students in guiding their own learning, revising their work, and developing self-evaluation skills. Interim and summative assessments are more formalized processes of measuring student achievement through the school year. The chief goal of interim assessments is to provide information to educators and policymakers, who can adjust curricula and instruction as needed. The primary purpose of summative assessments—which are often standardized and typically administered at the end of a unit of instruction, semester, or year—is to categorize performance of a student or education system to inform accountability processes and decisions about grades, graduation, or retention.

https://studentsatthecenterhub.org/wp-content/uploads/2015/10/Exec_AndradeHuffBrooke_032312.pdf
(Accessed 10-03-2018)

Handout 1: Beliefs about assessment in learner-centred environments

Module 3, Task 1

How far do you agree with the statements? Tick (✓) the respective answer (SA = strongly agree; A = agree; NS = not sure; D = disagree; SD = strongly disagree)

	STATEMENT	SA	A	NS	D	SD
1	Learner-centred assessment requires criterion, rather than norm-referenced assessment, adopting a much more holistic and divergent approach, involving a lot of peer and self-assessment.					
2	In learner-centred assessment learners may be rewarded summatively for identifying learning needs and reflecting on areas for further development without these being seen as personal shortcoming.					
3	It is through peer, self and collaborative assessment that students are able to make judgements about how well they are learning and not just how much they have learned.					
4	Assessments in a learner-centered classroom shifts the focus from being a measure of grading to helping teachers understand learners and create lessons based on their specific needs.					
5	Assessment is a judgement done in the context of published goals, measurable criteria and pertinent, agreed-upon forms of evidence.					
6	The results from assessments are only used by the teachers and the students.					
7	Assessment should be based on multidimensional evidence (e.g. static and dynamic situations; small assignments and lengthy projects; under a variety of performance conditions; formative and summative data and with different persons being the assessors).					
8	Student-centred assessment actively engages young people in the regulation of their own learning.					
9	Assessment is a judgement based on evidence, not feelings. Whatever our intuition about a student's abilities, we need evidence.					

Based on Ranald Macdonald, R. and Savin-Baden, M. (2003). *A Briefing on Assessment in Problem-based Learning*, LTCN Generic Centre, pp. 5–6. https://www.heacademy.ac.uk/knowledge-hub/briefing-assessment-problem-based-learning (Accessed 11-01-2018)

Handout 2: Types of assessment

Module 3, Task 1

Read the types of assessment. Which one(s) are to be used in learner-centred classrooms.

Assessment can be carried through a number of instruments and can be:

1. **Formal** or **informal assessment**

Formal assessment is carried when a test is given by an external body, like the Ministry of Education, or given internally by the school for placement purposes (e.g. to measure the level of knowledge and skills of a child in order to take a decision in which form to place the learner). **Informal assessment** is provided by the class teacher when he / she observes and assesses the progress children make in the daily work in the classroom and the changes that need to be made in the teaching to meet the changing needs of children. This can be done through oral examination or through classroom tests, and it can also include **self-assessment**.

2. **Continuous** (on-going) or **final** (overall) **assessment**

Continuous (on-going) assessment is administered at regular intervals during the school year and by it the teacher receives information about the achievement of short-term goals (e.g. children can form questions in the Present Simple tense; children can write a short paragraph about their family etc.). **Final (overall) assessment** is administered at the end of the school year ant it aims to check achievements of course goals.

3. **Formative** or **summative assessment**

According to its purpose assessment can be either *formative* or *summative*. **Formative assessment** is used to promote learners' attainment and to give them feedback about their own learning. It involves the identification of problems and the offering of ways to help overcome them. This type of assessment allows teachers to monitor learner performance and on the basis of this reorganize their instruction accordingly so that learner knowledge, skills and competences are increased.

Summative assessment is used to help the teacher grade learners' learning and performance at a particular time – e.g. at the end of a learning unit in order to determine if the content taught has been retained.

TASK TWO: Student-centred assessment

Aim:

- to provide participants with examples of alternative student-centred assessment forms.

Materials / Resources:

Handout 3 – Student-centred assessment (1)

Handout 4 – Student-centred assessment (2)

Handout 5 – Examples

Preparation:

Photocopies of Handout 3 (one for each participant)

Photocopies of Handout 4 (one for each participant)

Photocopies of Handout 5 (one for each participant)

Time: 40 minutes

1. Give students Handout 3. Ask them to work individually.
2. Check the answers by working with the whole group. If necessary, explain what the different forms of assignment are.

Answers:

(1) Group presentation
(2) Individual presentation
(3) Tripartite presentation
(4) Portfolio
(5) Self-assessment
(6) Peer assessment
(7) Reflective (online) journals
(8) Facilitator / tutor assessment
(9) Report
(10) Patchwork text

3. Add that apart from these possible forms of assessment, it is also necessary to think about the qualities of the assessment tools. Give Handout 4 and ask participants to work individually.
4. When ready invite participants to compare answers in pairs and to explain each other why they have chosen the specific answers.
5. Gather feedback in a plenary.

STUDENT-CENTRED QUALITIES OF SELECT ASSESMENT PROCESSES

	INDIVIDUALIZED	FOCUSED ON LEARNING AND GROWTH	MOTIVATING	STUDENT SELFREGULATION	INFORMATIVE TO A VARIETY OF AUDIENCES
FORMATIVE					
Self-assesment	✸	✸	✸	✸	
Peer-assesment	✸	✸	✸	✸	✸
Portfolios	✸	✸	✸	✸	✸
Tests		✸	✸	✸	✸
INTERIM					
Criterion-referenced test		✸			✸
SUMMATIVE					
Exhibitions	✸	✸	✸	✸	✸
Tests based on learning progression		✸			
Diagnostic items		✸			✸
Large-scale tests					✸

https://studentsatthecenterhub.org/wp-content/uploads/2015/10/Exec_AndradeHuffBrooke_032312.pdf
(Accessed 10-03-2018)

6. Tell participant that there are some examples of possible ways to use learner-centred assessment. Invite them to examine them and comment on their usefulness in the light of their own classrooms.
7. Summarise the main learning points and explain that learner-centred assessment takes time to be incorporated in the classroom and might involve some experimentation of which tools work well and which not in the different contexts.

Handout 3: Student-centred assessment (1)

Module 3, Task 2

Read the definitions of some of the forms of assessment that can be used in learner-centred classrooms. Fill in the gaps with the forms of assessment given:

Individual presentation	**Self-assessment**	**Facilitator / Tutor assessment**
Tripartite assessment	**Group presentation**	**Portfolio** **Report**
Peer assessment	**Patchwork text**	**Reflective (online) journals**

(1) _____

Asking the students to submit their work orally or in written form as a collaborative piece models the processes that take place in learner centred instruction but you need to have a clear idea on what you would like to mark – e.g the content, process, presentation or a combination of these.

(2) _____

Here students are asked to submit the component of work that they have researched for their contribution to the overall solution or management of the problem scenario, project completion or discovery learning. This has some of the problems of the above and if the students just present the component they have researched there is little synthesis over all with the problem or project scenario. This is also time consuming with large cohorts.

(3) _____

This has three components!

a) The group submits a report for which they receive a mark.

b) The individual submits the piece of work they researched.

c) The individual writes an account of the group process that is linked to the theory of group work.

These three components are added together to form the overall individual mark. The advantage of this is that it does not privilege some students who do less work and an individual student will be responsible for gaining two-thirds of the marks. As a result, most students perceive this kind of grading as being fair.

(4) _____

These can be unwieldy if not managed well and are difficult to mark. They are fine if they are well designed. Portfolios have been used in a number of programmes that educate students for the professions. In recent years, the requirements for these have been refined down from a vast quantity of materials towards a slenderer version that

offers greater reflection and criticality than before. Attention must be paid to setting criteria to ensure there is a requirement to create an overall synthesis.

(5) _____
This type of assessment allows students to think more carefully about what they do and do not know, and what they additionally need to know to accomplish certain tasks.

(6) _____
Providing students with an assessment rubric often helps guide the peer evaluation process even better. This kind of assessment also emphasises the cooperative nature of the learner-centred environment.

(7) _____
Students hand them in each week and receive a mark at the end of each term/semester. Students tend to be more open and honest about their learning than one would expect and these can be criterion referenced.

(8) _____
There is much debate globally about this type of assessment because if the group facilitator is also the assessor, it tends to affect the power dynamics in the learner-centred classroom.

(9) _____
Written communication is an important skill for students to acquire. Requiring written reports allows students to practise this form of communication, particularly if the word allowance is short and it is used in the final year, as it can promote succinct, critical pieces of work

(10) _____
This is a way of getting students to present their work in written form. Students build up text in course work over a number of weeks. Each component of work is shared with other students and they are expected to use different styles, such as a commentary on a lecture, a personal account, and a book review. This kind of assessment fits well with PBL because of its emphasis on critique and self-questioning.

Based on Ranald Macdonald, R. and Savin-Baden, M. (2003). *A Briefing on Assessment in Problem-based Learning*, LTCN Generic Centre, pp. 5–6. https://www.heacademy.ac.uk/knowledge-hub/briefing-assessment-problem-based-learning (Accessed 11-01-2018)

Handout 4: Student-centred assessment (2)

Module 3, Task 2

Examine the table. Think about the qualities of the selected types of assessment and assessment tools. Put a tick (✓) in the respective column.

STUDENT-CENTRED QUALITIES OF SELECT ASSESMENT PROCESSES

	INDIVIDUALIZED	FOCUSED ON LEARNING AND GROWTH	MOTIVATING	STUDENT SELFREGULATION	INFORMATIVE TO A VARIETY OF AUDIENCES
FORMATIVE					
Self-assesment					
Peer-assesment					
Portfolios					
Tests					
INTERIM					
Criterion-referenced test					
SUMMATIVE					
Exhibitions					
Tests based on learning progression					
Diagnostic items					
Large-scale tests					

https://studentsatthecenterhub.org/wp-content/uploads/2015/10/Exec_AndradeHuffBrooke_032312.pdf
(Accessed 10-03-2018)

Handout 5: Examples

Module 3, Task 2

Read the examples. Suggest a possible way of assessment relevant to the course you teach and focused on the learner-centred methods.

1) Problem-based learning / Law

Details provided by Gina Hefferan, Auckland University of Technology

'Contract Issues in Business' is a final year paper in the Bachelor of Business degree at Auckland University of Technology. The paper is taught by way of PBL. Students are presented with a new scenario each week/fortnight and work in small groups to analyse the issues, frame research questions, and conduct research to explore the legal issues inherent in the factual situation, and apply the law to the facts to reach conclusions. Assessment comprises a final exam and the submission by each group of a portfolio of the results of their research into four of the weekly problems. The aim is to recognise (and give credit for) the amount of preparation required for PBL classes without diverting students' energy from the learning, as well as to give equal weight to the process of legal problem solving. Some of this is inherent in their presentation of their result: stating the central issue and relevant law before applying it to the facts.

In addition, groups submit their initial research questions, their refined research questions, their collection of cases, with notes attached as to relevance, and some record of the issues traversed in group discussion. For the latter, most groups choose to provide a printout of their discussion on the online platform, in which each group has a private workspace. Finally, groups submit some self-evaluation of the process. Groups are required to submit their initial results for each problem prior to the whole class discussion to ensure that each group engages with the process, rather than relying on the whole-class discussion to make the issues clear. The difference between initial results and their final one gives added material for the final evaluative step of the problem solving process. Group marks can be redistributed (according to agreed criteria) among group members to reflect different individual contributions to the group. The final exam is an individual assessment. The set-up facts are pre-issued and groups have the option of working together to research the issues. In the exam, the situation unfolds in two stages and the students are required to write an individual answer. By this point the process is implicit in the answer, and the final evaluative step is not assessed. It is too soon to make assessments of how well this assessment programme achieves the objectives, since this is the first time this paper has been offered, though the tutor has been delighted by the amount and quality of the work that has gone into the portfolio, and the animated discussion on the online platform, on which she is able to eavesdrop.

Based on Ranald Macdonald, R. and Savin-Baden, M. (2003). *A Briefing on Assessment in Problem-based Learning*, LTCN Generic Centre, pp. 5–6. https://www.heacademy.ac.uk/knowledge-hub/briefing-assessment-problem-based-learning (Accessed 11-01-2018)

2) Task-based learning / English Language

Task: Learners gather information on a specific topic through emailing students in another university and then use the information to complete a group presentation.

(i) Assessment focus

The task is intended to assess the ability of learners

- to ask for information using grammatically correct questions;
- to clarify and develop ideas by making revisions to own written texts through personal reflection and talk with others;
- to plan and deliver a group presentation and;
- to identify and discuss ideas in spoken and written texts, form opinions and express them.

The task is developed to meet the following Learning Targets:

- to produce or exchange a range of formal and informal messages both oral and written (ISc in KS3);
- to obtain and provide objects, services and information in real and simulated situations (ISe in KS3);
- to provide or find out, select, organize and present information on familiar and less familiar topics (KSa in KS3);
- to interpret and use more extensive information through processes or activities such as sequencing, describing, classifying, comparing, explaining, predicting, inferring, summarizing and drawing conclusions (KSb in KS3);
- to identify and define problems from given information, consider related factors, solve the problems and explain the solutions (KSd in KS3);
- to clarify and develop ideas by making revisions to one's own written texts through personal reflection and talk with others (KSe in KS3) and;
- to understand how the English language works in relation to basic differences between formal and informal contexts and how different texts are organized and expressed; and apply this understanding to one's learning and use of the language (KSf in KS3).

(ii) Relation to the curriculum

As emphasized in the *CDC Syllabus for English Language (Secondary 1–5) 1999*, project work is important for a number of reasons, including developing learners' independence and integrating skills. This project integrates reading, writing, listening and speaking. It also creates for the learners a genuine need to communicate in English.

(iii) Advice on using the task

It is important that the teacher sets up a link with other schools before learners are given the task sheet. This will ensure that the groups will receive responses to their questions and that each group is collecting different information so that there is a genuine information gap when they are making their presentation to the rest of the class. The teacher should check each group's questions and advise where necessary. The completion of this project will take at least

4 lessons, if learners are to have adequate time to prepare their questions, organize their information and then present their findings to the class.

Proposed feedback mechanism

Since the emphasis of this task is on the oral presentation, the teacher should focus feedback on this aspect. Feedback on the 'dialogue' between the groups and the students of the other schools can be based on indicating whether the questions were correct and appropriate. The following feedback sheet (Version A) is generic and has been designed to demonstrate to teachers the possible areas that could be assessed in an oral presentation. Version B is an example of how the feedback sheet may be adapted or simplified to suit the assessment focus as well as the level of a given group of learners.

Feedback Sheet

Speaking: Short Reports & Oral Presentations (Version A – Generic)

Underline the appropriate item, tick the appropriate box and add comments below.

	Needs Improvement	**Satisfactory**	**Well Done**
Content • Enough information • Clear ideas • Relevant ideas • Interesting / Original / Creative ideas	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
Organization • Introduction ❖ Interests the audience ❖ States the purpose / focus of presentation ❖ Gives presentation plan	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐
• Body ❖ Main points supported with explanation / examples ❖ Ideas logically developed	☐ ☐	☐ ☐	☐ ☐
• Conclusion ❖ Restates purpose / focus of presentation ❖ Summarizes main points	☐ ☐	☐ ☐	☐ ☐
• Signaling devices ❖ Good use of connectors	☐	☐	☐
Communicative Strategies • Shows confidence • Shows awareness of audience • Uses body language effectively and make right pauses • Uses notes effectively	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐

Genre & Task Requirements • Suitable length • Students' own speech	☐ ☐	☐ ☐	☐ ☐
Pronunciation & Fluency • Loud enough • Not too fast or slow • Correct pronunciation • Correct intonation and stress	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
Language & Style • Appropriate choice of words • Variety of expressions • Range of vocabulary • Degree of formality	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
Grammar • Correct grammar	☐	☐	☐
Visual Aids • Clear • Relevant • Effectively used	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐

Comments	**Grade**

Feedback Sheet

Speaking: Short Reports & Oral Presentations (Version B – Adapted)

	Needs Improvement	Satisfactory	Well Done
Content & Organization			
• Provides relevant information	☐	☐	☐
• Well organized content	☐	☐	☐
• Easy to follow	☐	☐	☐
Communicative Strategies			
• Shows confidence	☐	☐	☐
• Shows awareness of audience	☐	☐	☐
• Uses notes effectively	☐	☐	☐
Pronunciation & Fluency			
• Loud enough	☐	☐	☐
• Not too fast / slow	☐	☐	☐
• Pronunciation clear	☐	☐	☐

Comments	**Grade**

Task-based Assessment for English Language Learning at Secondary Level [online] - http://cd1.edb.hkedcity.net/cd/eng/TBA_Eng_Sec/web/part2_Task3.htm (Accessed 11-01-2018)

7. INTERESTING PRACTICES

Tsvetelina Harakchiyska

The current section of the Manual contains practice-oriented examples of learner-centred teaching in the different higher educational institutions represented in the STAR project consortium. These examples of interesting practices can be used as references of possible ways to implement the student-centred instructional design in a variety of courses and their aim is to serve as a trigger of inspiration for university lecturers willing to change the ways in which they teach by incorporating a more learner-centred approach in their classrooms.

7.1. The changing context of higher education

The changes in the teaching and learning practices applied in the last decade in the EU higher educational institutions have led to the introduction of new educational practices, new tools and methods that are in line with the evolving needs of the new generation of digital learners, the social needs of the communities and the needs of the job market. The shift of the educational paradigm from teacher-centred instruction to learner-centred teaching has resulted in the implementation of a variety of approaches providing opportunities for the active involvement of students, for increased collaboration among learners and for their engagement in tasks that link theory with practice.

In fact the on-going transformations of the teaching and learning processes taking place in the 21st century classroom are a result of the introduction of four fundamental principles of education – learning to know, learning to do, learning to be and learning to live together (Figure 1).

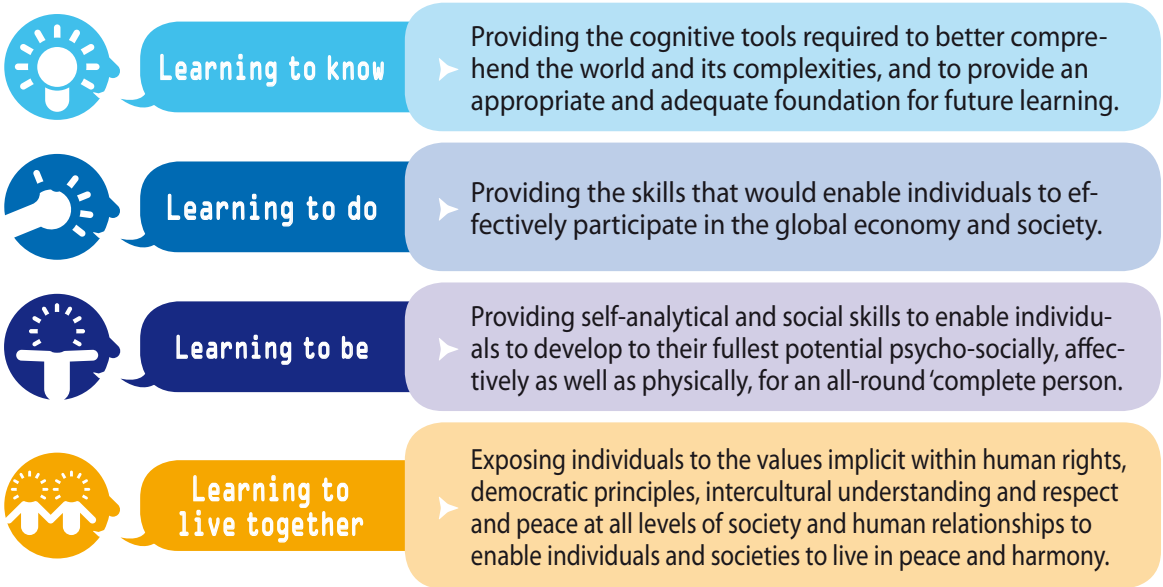


Figure 1. The Four Pillars of Education

These four pillars of modern education reshape the teaching and learning process by imposing a number of priorities for transformation of the higher education systems and the models of course provision offered by the universities. These priorities are:

- widening access to education and increasing the scope of the methods used – higher educational institutions are expected to offer flexible learning pathways which allow for on-campus, distance learning, or blended learning formats suitable for a variety of learners from different educational contexts (local, national and international) and which involve the implementation of methods that are tailored to the diverse needs of the learners;
- incorporating a rich spectrum of programmes and courses that are in line with the needs of learners, the community and the job market;
- offering dynamic teaching and learning practices which require active participation of learners – using a personalized approach allows not only for matching the training to the individual needs of learners but also for the implementation of a student-centred perspective that makes it possible for learners to become creators of knowledge, rather than passive receivers of it;
- facilitating the acquisition of transversal competences by learners – integrating up-to-date training methodologies and resources in the provision of programmes and courses that are created in cooperation with key stakeholders on the job market aimed at improving the transversal skills of students.

How can higher educational institutions achieve these priorities? How can they develop learners' creativity, entrepreneurial mindset, digital skills, social, civic, language and intercultural competences, as well as critical thinking skills? And what would constitute "good" teaching or "best pedagogical practices" in this case?

7.2. Best practice or interesting practice?

Nowadays the term "best practice" has entered the context of education and education related policy documents. Some of the definitions available, however, do not relate to this field; rather, they come from such fields as business, medicine, science among others. What is more, a clear definition of "best practice" is almost impossible to provide. This can be illustrated by the available interpretations of the term:

- "A working method or set of working methods that is officially accepted as being the best to use in a particular business or industry, usually described formally and in detail" [Cambridge Online Dictionary][9];
- "A method or technique that has consistently shown results superior to those achieved with other means, and that is used as a benchmark" [Business dictionary, online];
- "… any improvement over existing systems" [Bragg, 2013: 1];

[9] https://dictionary.cambridge.org/dictionary/english/best-practice (Accessed 28-10-2017)

- "using the most appropriate tools to their best potential to achieve sound pedagogical processes and outcomes" [Ushi, 2003: 9];
- "… those practices that produce outstanding results in a different situation and that could be adapted to another situation" [O'Dell & Grayson, 1998 in Borzillo, 2007: 13].

Due to the fact that the term has many and varied definitions relevant to a respective context, some researchers object to its use (Druery, McCormack and Murphy, 2013; Reay, Berta and Kohn (2009); Simon (2011) among others). The main arguments put forward include that any practice (incl. educational practices) are context linked and are influenced by an array of variables – e.g. the learning styles of students, the teaching methods used, the institutional policies and / or the national educational policies, the predominant teaching styles etc. Therefore, it can be claimed that what works well in one educational context might not work well in another educational context.

Since one of the aims of the STAR project is to enhance the quality of teaching and learning in the higher educational institutions in the two partner countries – the Republic of China and the Republic of Georgia by promoting the experience of the EU partners in the provision a learner-centred approach (as a means for enriching students' knowledge and skills), the project consortium intends to collect and document a set of educational practices that would serve as an illustration of the successful implementation of this approach. Since our intention is to improve and extend our teaching practices by learning from each other – which is one of the aspects underlying the idea behind best practices, we fully acknowledge the potential of best practices. However, the STAR consortium partners would prefer to use the term interesting practice rather than best practice as we believe that the consortium institutions should decide whether the collected good practices could be implemented successfully in their own institutional and national contexts.

7.3. What stands behind interesting practice?

The collected interesting practices need to comply with some mutually agreed principles expressing the shared understanding of the STAR consortium members of what would stand behind the concept interesting practice.

The characteristic features of interesting practices encompass teaching practices that:

- include active, experiential, problem-solving, hands-on-learning opportunities;
- allow students to collaborate with each other in and outside the classroom while working on the tasks set;
- cater for the development of learner autonomy, students' skills for decision-making and for taking responsibility of their own learning;

- recognize and acknowledge the different learning styles of students, cognitive abilities and cultural identity;
- see the teacher as a guide, a facilitator and not as the main source of knowledge;
- engage students in activities that involve critical thinking, creativity, digital skills and / or entrepreneurship;
- allow for the development of subject specific, as well as social and civic competences.

The essential features specified above contribute to the development of a conducive learning environment where learners have a central position and where the following principles are respected:

- choice – students are not passive learners but active individuals who make choices, take decisions and live with the consequences of their decisions. They are viewed as young people who possess a potential for creative problems solving, for reflection of their own learning and achievements and for active citizenship;
- responsibility – students make decisions about the activities they would like to make, the tasks they would like to perform, the aims and goals they would pursue, the evaluation of their own work and the work of others;
- expression – the ways in which young people can express their ideas, feelings, thoughts, opinion and knowledge gained (e.g. posters, project work, writing, performance activities, art etc.);
- community – cooperation and collaboration are a key principle in present day teaching and learning paradigms. Students are expected to work together in a cooperative manner, to exchange ideas and accept another viewpoint, to share responsibility of the process of production of the learning outcomes, to take part in a variety of interaction patterns and use different channels for sharing information;
- diversity – young people nowadays are expected to possess the necessary competences and skills to function successfully in heterogeneous communities and to openly express their identity;
- technology – the digital generation of learners puts forward the growing need for promoting the use of digital teaching and learning materials.

(adopted from Daniels and Bizar, 2005)

Considering all this, the definition of an interesting practice adopted by the STAR project consortium members is:

Interesting practice – a teaching practice which illustrates the successful implementation of the learner-centred approach in a specific course or programme offered by a higher educational institution from the programme countries. This teaching

practice provides the basis for its further implementation and improvement by a higher educational institution (from the programme or partner countries) so that the teaching practice meets the needs, goals and priorities of the respective university.

7.4. Examples of collected *interesting practices*

7.4.1. Interesting practice examples in problem-based learning

Submitted by:	Martha Mothelsson
Project partner university:	University College Copenhagen (Denmark)

INTERESTING PRACTICE EXAMPLE ON PROBLEM-BASED LEARNING No 1

PART A. General information about the interesting practice	
Title of the interesting practice	PLACE-BASED LEARNING IN LITERATURE CLASSES
implemented in the module	Teacher training programme Course in mother tongue language, communication and literature Module: Fiction
Type of Course	Face-to-face
University	University College Copenhagen
Pedagogical Team involved in it	Danish language, literature and communication

PART B. Target group	
Target group	**Age group of students:** ☒ 18–24 ☒ 25–34 ☒ 35–44 □ 45–54 □ 55–64 □ 65+ **Level of Education:** □ ISCED 5 (Short cycle tertiary education) ☒ ISCED 6 (Bachelor degree) □ ISCED 7 (Master degree) □ ISCED 8 (Doctoral degree) □ Other (Please, specify):

PART C. KEY SKILLS REQUIRED FOR PARTICIPATION / ENTRY IN THE COURSE	
TRANSVERSAL SKILLS AND COMPETENCES	☒ COMMUNICATION IN THE MOTHER TONGUE ☐ COMMUNICATION IN FOREIGN LANGUAGES ☐ DIGITAL COMPETENCES ☐ LEARNING TO LEARN ☐ SOCIAL AND CIVIC COMPETENCES ☐ ENTREPRENEURIAL COMPETENCES ☐ CULTURAL AWARENESS AND INTERCULTURAL COMMUNICATION COMPETENCE
SUBJECT SPECIFIC SKILLS	☒ LANGUAGE AND LITERATURE ☒ LITERATURE DIDACTICS AND TEACHING SKILLS

PART D. SPECIFIC INFORMATION OF THE INTERESTING PRACTICE	
TOPIC OF THE MODULE	**TEACHING LITERATURE**
DURATION:	4 LESSONS
AIMS OF THE MODULE	• To develop students' skills for planning, implementing and evaluating 'place based reading' as a method for teaching literature. • To improve students' skills to include outdoor locations in their lesson plans.
OBJECTIVES (OUTCOMES)	**BY THE END OF THE MODULE STUDENTS WILL BE ABLE TO:** • Reflect on teaching practices that include other locations than the classroom. • Plan and implement teaching activities that combine text and location.
KEY SKILLS	Experimental skills, skills connected with decision making, skills to perform inquiry, professional teaching/learning skills.
LEARNER-CENTRED METHODS ADDRESSED:	Problem based learning ☒ Discovery learning ❑ Task based learning ❑ Small group, self-instructional and project-based learning ❑ Experiential and reflective learning ❑ Peer evaluation and learning contracts ❑

MATERIALS / AIDS / EQUIPMENT	• Jesper Wung Sung: Kopierne (a novel, 2011), • Padlet and telephone, • an outdoor location.
CROSS- CURRICULAR LINKS	PADLET.COM
PREPARATION	• Read the novel. • Create a Padlet and a QR code (instructions on padlet.com).
POSSIBLE PROBLEMS AND SOLUTIONS	• Students need access to Padlet -> A smart phone could be used to create a Hot Spot and get access to the Internet. • QR scanner is necessary -> Most students have it on their phone. Students who don't have smartphones can work together with another student. • Weather conditions can be poor -> Have the lesson when weather permits.

INTERESTING PRACTICE MODULE IMPLEMENTATION PLAN

No	Stage / Time	Procedure	Purpose(s)	Interaction Patterns
1.	Warm-up	Class discussion about the novel and about place-based reading as a method	• To reflect on the novel • To be knowledgeable on place based reading as a method	Presentations on the method and the novel Class discussions
2.	Inquiry	Groups of students are assigned different parts of the novel. Their task is to plan a learning activity that includes a location they choose. Padlet can be used to support the activity the group has planned. Each activity is planned to have a duration of 15 minutes.	• To cooperate on planning an activity that includes text and space	

3.	Implement ation	Each group carries out their planned activity at their chosen location with the remaining students as their target group	• To develop students' skills in designing an activity that can be completed on location with the use of Padlet. • To develop students' skills in activating and managing others in a location and with a text	Groups teach the rest of the class
4.	Follow-up	Common summary and evaluation of outcome. Which parts worked well?	• To develop students' skills in reflecting on teaching and learning outputs with use of relevant professional terminology	Class based summary and discussion

DESCRIPTION OF THE MODULE STEPS

The aim is for the students to develop their skills in planning, implementing and evaluating teaching activities on fiction and to integrate out door space in their teaching. They need to have read the novel carefully in order to come up with relevant ideas for their lesson and in order to carry it out. In this regard the class discussion on potentials in the novel and on the challenges of taking it outside is important. Less proficient groups can be inspired and motivated by listening to ideas proposed by other students. It's also important that students have familiarized themselves with how to use the Padlet as a tool for teaching. The teacher needs to present an introduction and examples on the use of Padlet and on how assignments can be organized.

During the students preparation of their activity ample time is needed in order for the students to find sections in the novel that are suitable. They need to work on pinpointing which part of their assigned section is central and on how it can be transformed in to an experience in the out of doors. In this phase students need lots of support. The task being to find the central part and to produce ideas on how the main

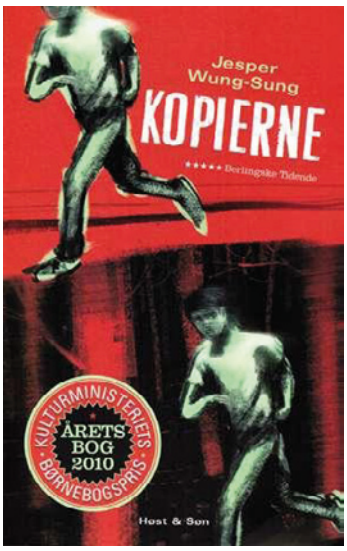
points of the fictional text can be transformed in to sensual and cognitive experience and recognition.

During the implementation of students teaching activities, the students are in charge. The sequence of locations must follow the novel in order to reproduce the buildup of the novel and the experience of the initial reading. The padlet is included to initiate writing exercises, pictures and reading. The teacher trainer keeps the time in order to secure the 15 minute duration of each presentation. And to secure enough time for getting from place to place.

The evaluation works best as a common class discussion immediately after the presentations. What worked best? Which activities were especially successful in bringing together the text and the location? Padlet can be shown back in class in order to remind the participants of what they have experienced.

Materials used in the module

WUNG SUNG, Jesper: Kopierne, Høst og Søn 2010



Mønsted, Pernille: At sætte sig i en andens sted med stedet, Viden om læsning, 2017
http://www.videnomlaesning.dk/media/2017/20_pernille-damm-monsted-pjedsted.pdf
https://padlet.com

INTERESTING PRACTICE EXAMPLE ON PROBLEM-BASED LEARNING No 2

PART A. General information about the interesting practice	
Title of the interesting practice	ORGANIZING STUDENTS FEEDBACK TO EACH OTHER
implemented in the module	Teacher training programme Course: math teaching in elementary school Module 1
Type of Course	Face-to-face
University	University College Copenhagen
Pedagogical Team involved in it	Math Team

PART B. Target group	
Target group	**Age group of students:** ☒ 18–24 ☒ 25–34 ☒ 35–44 □ 45–54 □ 55–64 □ 65+ **Level of Education:** □ ISCED 5 (Short cycle tertiary education) ☒ ISCED 6 (Bachelor degree) □ ISCED 7 (Master degree) □ ISCED 8 (Doctoral degree) □ Other (Please, specify):
PART C. Key skills required for participation / entry in the course	
Transversal skills and competences	☒ Communication in the mother tongue □ Communication in foreign languages ☒ Mathematical competence and competences in science and technology □ Digital competences □ Learning to learn □ Social and civic competences □ Entrepreneurial competences □ Cultural awareness and intercultural communication competence
Subject specific competences	☒ Mathematics Didactics ☒ Performing Feedback to peers

SUBJECT SPECIFIC SKILLS	☒ PROBLEM SOLVING SKILLS ☒ MODELLING SKILLS ☒ SYMBOL TREATMENT SKILLS ☒ COMMUNICATION SKILLS ☒ KNOWLEDGE OF TEACHING MATERIALS ☒ REASONING SKILLS ☒ REPRESENTATION SKILLS

PART D. SPECIFIC INFORMATION OF THE INTERESTING PRACTICE	
TOPIC OF THE MODULE	**HOW ARE MATHEMATICAL SKILLS REPRESENTED IN MATHS TEACHING**
DURATION:	8 LESSONS
AIMS OF THE MODULE	• To develop students' awareness of Mathematical Didactics; • To foster students' skills to cooperate in study groups; • To improve students' skill for giving constructive feedback to peers
OBJECTIVES (OUTCOMES)	**BY THE END OF THE MODULE STUDENTS WILL BE ABLE TO:** • Understand what math didactics poses of questions and problems • Demonstrate proficiency in cooperation; • Demonstrate proficiency in giving and presenting feedback regarding a difficult topic.
KEY SKILLS	• Didactic skills • Cooperation skills • Feedback skills
LEARNER-CENTRED METHODS ADDRESSED:	Problem based learning ☒ Discovery learning ❑ Task based learning ❑ Small group, self-instructional and project-based learning ❑ Experiential and reflective learning ❑ Peer evaluation and learning contracts ❑
MATERIALS / AIDS / EQUIPMENT	• Textbook materials • Maths hands-on teaching materials
CROSS- CURRICULAR LINKS	

PREPARATION	• Choosing suitable topics from the syllabus. • Designing the sequence of math skills to be worked on. • Making a plan of rotation • Specification of what is to be included in the presentations and in the feedback
POSSIBLE PROBLEMS AND SOLUTIONS	• If the students don't quite understand the requirements for their presentation they may need extra support and suggestions from the teacher during their planning • If the students are not able to give qualified feedback -> When the groups give their feedback it is important for the teacher to be active in supplying extra input if needed, in order to secure that the feedback covers all of the areas properly

INTERESTING PRACTICE MODULE IMPLEMENTATION PLAN

No	Stage / Time	Procedure	Purpose(s)	Interaction Patterns
1.	Warm-up	The teacher presents the table of math topics to be included and designates one topic to each group of students The requirements regarding the presentations that each group will be responsible for are presented and discusses	• To familiarize the students with the plan and make sure the groups understand their assignment	Teacher presentation Examples Class discussion Exercises

2.	Group work	The students prepare a demo lesson where their mathematical skill is taught	• To provide opportunities for the students to get a grip of how a mathematical skill must be transformed in to activities, problems, examples and exercises when a lesson on the topic is planned for elementary school teaching	Group work with the support of the teacher
3.	Presentations according to the plan	To each presenting group another group is assigned to give feed back	• The presenting group learns from their preparation and teaching performance • The feedback group becomes more aware of the three areas to be evaluated	Presentation and feed back
4.	Follow-up	Class based evaluation of the whole unit	• In order to secure meta-learning, students need to engage in discussion and reflection regarding their own learning output in a given unit	Different evaluation methods can be put to work. We used small Group discussions with common criteria followed up by a class discussion

DESCRIPTION OF THE MODULE STEPS

We had seven study groups, and accordingly chose the following seven skills to be covered:

1. Problem solving skills
2. Modelling skills
3. Symbol treatment skills

4. communication skills
5. knowledge of teaching materials
6. reasoning skills
7. representation skills

When group number 1 did their presentation, they were given feedback by group number 2, group number 2 received feedback from group number 3 etc.

The feedback is expected to cover three areas:
1. Description of the math skill involved in the demo lesson:
– Is the math skill clearly present in the lesson?
– Is the skill related properly to the primary school math subject?
– Are relevant goals from the primary school syllabus taken in to account?

2. The demo lesson
– do the teaching and learning activities reflect the skill?
– Is the lesson appropriate for the chosen grade level?
– Are the activities well-presented and structured?
– Does the skill seem activated in the lesson?
– Is the lesson summarized properly?

3. The presentation as a whole
– Is the presentation coherent?
– Did you, as participants, become more aware of the skill in question?
– Give the presenting group good advice for their next presentation.

What are we trying to achieve in this teaching unit?
Students can:

- Characterize math skills and relate them to primary school math teaching.
- Plan and implement teaching activities for primary math that include a given skill.
- Present math didactical topics and activities for their peers.
- Give feedback regarding characteristics, activities and presentation with specified criteria.

Why did we choose this method?
The method will secure that all students give and receive feed back.
Using the method supports that study groups are given meaningful assignments.

Potentially this method will support that students practice:

- presentation of central didactic topics
- planning and implementing teaching and learning activities that involve specific skills
- discussing the relation between theory (specific skills) and practice (activities)
- performing feedback on the basis of explicit criteria

7.4.2. Interesting practice examples in task-based learning

Submitted by:	Teresa Pessoa
Project partner university:	University of Coimbra (Portugal)

INTERESTING PRACTICE EXAMPLE ON TASK-BASED LEARNING NO 1

PART A. GENERAL INFORMATION ABOUT THE INTERESTING PRACTICE	
TITLE OF THE INTERESTING PRACTICE	CASE-BASED LEARNING
IMPLEMENTED IN THE MODULE	Reflective Theories and Practices in Education
TYPE OF COURSE	Face-to-face
UNIVERSITY	University of Coimbra
PEDAGOGICAL TEAM INVOLVED IN IT	Teresa Pessoa

PART B. TARGET GROUP	
TARGET GROUP	**AGE GROUP OF STUDENTS:** ☒ 18–24 ☒ 25–34 ☒ 35–44 ☒ 45–54 □ 55–64 □ 65+ **LEVEL OF EDUCATION:** □ ISCED 5 (Short cycle tertiary education) ☒ ISCED 6 (Bachelor degree) ☒ ISCED 7 (Master degree) □ ISCED 8 (Doctoral degree) □ Other (Please, specify):

PART C. KEY SKILLS REQUIRED FOR PARTICIPATION / ENTRY IN THE COURSE	
TRANSVERSAL SKILLS AND COMPETENCES	☒ COMMUNICATION IN THE MOTHER TONGUE ☐ COMMUNICATION IN FOREIGN LANGUAGES ☐ DIGITAL COMPETENCES ☐ LEARNING TO LEARN ☐ SOCIAL AND CIVIC COMPETENCES ☐ ENTREPRENEURIAL COMPETENCES ☐ CULTURAL AWARENESS AND INTERCULTURAL COMMUNICATION COMPETENCE

PART D. SPECIFIC INFORMATION OF THE INTERESTING PRACTICE	
TOPICS OF THE MODULE	Educating, teaching and learning – general frameworks • Reflective teacher education – concepts and practices. • Learning as a knowledge construction process. • Strategies for reflective training. • The construction of cases, stories and narratives. • Portfolios, autobiographies, blogs, journals, cases.
DURATION:	ONE SEMESTER | 30 HOURS
AIMS OF THE MODULE	The curricular unit aims to provide the competences needed for designing, developing and assessing training paths supported by reflection on and about practices related to life in school
OBJECTIVES (OUTCOMES)	**BY THE END OF THE MODULE STUDENTS WILL BE ABLE TO:** • Point out the specific features of reflective and narrative models; • Apply reflective strategies; • Create a lesson based on reflexive strategies**.**
KEY SKILLS	Learn to Think • critical reading of texts; • critical thinking; • analytical skills.

LEARNER-CENTRED METHODS ADDRESSED:	Problem based learning ❑ Discovery learning ❑ Task / Case based learning ☒ Small group, self-instructional and project-based learning ❑ Experiential and reflective learning ❑ Peer evaluation and learning contracts ❑
MATERIALS / AIDS / EQUIPMENT	The Case Analysis is used when it is intended to promote the understanding and analysis, guided and grounded, of contextualized problems in real or simulated situations. It can integrate the individual study and the collaborative analysis of the case as well as the sharing of the supervised knowledge by the teacher.
CROSS- CURRICULAR LINKS	Active methods.
PREPARATION	• A Case Book. • Thematic Cases.
POSSIBLE PROBLEMS AND SOLUTIONS	• Usually there is a good acceptance for working with cases in class when weather permits.

INTERESTING PRACTICE MODULE IMPLEMENTATION PLAN

No	Stage / Time	Procedure	Purpose(s)	Interaction Patterns
1.	Warm-up	The T. **explains** what a case is and the importance of the pedagogical use of cases. **Exemplifies** with The Little Prince's book from A. Saint-Exupery The case of the fox.	• To introduce the new a new topic	T – Ss

2.	second stage	The **teacher selects and presents a significant case**	• To make students aware of contextualized learning	T – Ss
3.	3 stage	The teacher creates the opportunity for the **individual study** on the part of the student;	• To develop reading skills and learn to think	S
4.	4 stage	**TeamWork-** group analysis (4–6 sub-jects) of the case can be organized and planned	• To develop Ss' skills for critical analysis of cases;	S – Ss
5.	5 stage	Guided analysis	• To develop skills of attention and critically thinking	S – S
6.	6 stage	**Written summaries**	• To develop skills of synthesis	S – S

DESCRIPTION OF THE MODULE STEPS

The Case Analysis is used when it is intended to promote the understanding and analysis, guided and grounded, of contextualized problems in real or simulated situations.

It can integrate the individual study and the collaborative analysis of the case as well as the sharing of the supervised knowledge by the teacher. Like this:

1 – **Warm-up –** The T. explains what a case is and the importance of the pedagogical use of cases and exemplifies with The Little Prince's book from A. Saint-Exupery: the case of the fox. The T. explores the theme from the point of view of philosophy, literature, mother tongue and nature sciences

2 – In a second moment the **teacher selects a significant case** (that is a case related with a the subject under study)

3 – The teacher creates the opportunity for the **individual study** on the part of the student;

4 – **TeamWork-** in this moment the group analysis (4–6 subjects) of the case can be organized and planned; the students take different roles: reader, moderator, rapporteur

5 – This collaborative/cooperative study can **be guided** through documents created for this purpose.

6 – There should be **written summaries** of the work developed;

7 – Finally, there will be sharing and broad discussion of reflection with teacher and peers.

8 – A final report should be developed with different comments about the case.

Learn More: http://www.sciencedirect.com/science/article/pii/S1877042814014633

Materials used in the module

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INTERESTING PRACTICE EXAMPLE ON TASK-BASED LEARNING NO 2

Submitted by:	Tsvetelina Harakchiyska
Project partner university:	Angel Kanchev University of Ruse (Bulgaria)

PART A. GENERAL INFORMATION ABOUT THE INTERESTING PRACTICE	
TITLE OF THE INTERESTING PRACTICE	IMPLEMENTING TASK-BASED LEARNING IN THE INTERCULTURAL COMPETENCE TRAINING OF STUDENTS
IMPLEMENTED IN THE COURSE	Intercultural Competence and Intercultural Education
TYPE OF COURSE	Face-to-face
UNIVERSITY	University of Ruse
PEDAGOGICAL TEAM INVOLVED IN IT	Tsvetelina Harakchiyska

PART B. TARGET GROUP	
TARGET GROUP	**AGE GROUP OF STUDENTS:** □ 18–24 ☒ 25–34 □ 35–44 □ 45–54 □ 55–64 □ 65+ **LEVEL OF EDUCATION:** □ ISCED 5 (Short cycle tertiary education) □ ISCED 6 (Bachelor degree) ☒ ISCED 7 (Master degree) □ ISCED 8 (Doctoral degree) □ Other (Please, specify):

PART C. KEY SKILLS REQUIRED FOR PARTICIPATION / ENTRY IN THE COURSE	
TRANSVERSAL SKILLS AND COMPETENCES	☐ COMMUNICATION IN THE MOTHER TONGUE ☒ COMMUNICATION IN FOREIGN LANGUAGES ☐ DIGITAL COMPETENCES ☒ LEARNING TO LEARN ☒ SOCIAL AND CIVIC COMPETENCES ☐ ENTREPRENEURIAL COMPETENCES ☒ CULTURAL AWARENESS AND INTERCULTURAL COMMUNICATION COMPETENCE
SUBJECT SPECIFIC COMPETENCE AND SKILLS	• **KNOWLEDGE:** – DECLARATIVE AND PROCEDURAL KNOWLEDGE ; – CULTURE SPECIFIC KNOWLEDGE – ANALYSING BASIC INFORMATION ABOUT CULTURES (E.G. VALUES, BELIEFS, PRACTICES, COMMUNICATION STYLES, ETC.). • **CULTURAL AWARENESS;** • **CAPACITY TO:** – EVALUATE CRITICALLY THEIR OWN AND THE TARGET CULTURE BY USING CLEARLY SET CRITERIA AND PERSPECTIVES; – OPERATE WITH NEW KNOWLEDGE AND TO ACQUIRE NEW KNOWLEDGE OF A CULTURE; – PUT THEMSELVES "IN THE SHOES OF OTHERS". **SUBJECT SPECIFIC SKILLS:** • ABILITY TO COMPARE, CONTRAST AND ESTABLISH LINKS BETWEEN THEIR OWN AND THE TARGET CULTURE PHENOMENA AND PRACTICES; • ABILITY TO APPLY ADEQUATE DISCOURSE STRATEGIES FOR EFFECTIVE COMMUNICATION WITH MEMBERS OF OTHER CULTURES; • ABILITY TO ACT AS A MEDIATOR BETWEEN THEIR OWN AND THE TARGET CULTURE AND PREVENT POSSIBLE CASES OF MISUNDERSTANDING OF CONFLICTS. **ATTITUDES:** • OPENNESS; • TOLERANCE; • RESPECT TOWARDS OTHERNESS.

PART D. SPECIFIC INFORMATION OF THE INTERESTING PRACTICE	
TOPICS OF THE LESSON	The Understanding Supervisor
DURATION:	120 MIN. (A SERIES OF 3 CONSECUTIVE 45 MIN. LESSONS)
AIMS OF THE MODULE	• to raise students' awareness of the importance of language in the process of intercultural communication • to establish a link between power and discourse in intercultural communication; • to develop students' skills for critical reading of texts and for interpreting the language used in them.
OBJECTIVES (OUTCOMES)	**BY THE END OF THE MODULE STUDENTS WILL BE ABLE TO:** • recognise the ways in which social power and dominance are reflected in language; • identify the ways in which stereotypes and preliminary notions of others and otherness affect the language and lead to difficulties in intercultural communication; • read critically texts and analyse the language used in them as a means for facilitating or hampering intercultural communication.
KEY SKILLS	• critical reading of texts; • critical thinking; • analytical skills; • skills for working in a team; • self-directed learning skills; • self-assessment and assessment of the work of peers.
LEARNER-CENTRED METHODS ADDRESSED:	Problem based learning ❑ Discovery learning ❑ Task based learning ☒ Small group, self-instructional and project-based learning ❑ Experiential and reflective learning ❑ Peer evaluation and learning contracts ❑

MATERIALS / AIDS / EQUIPMENT	• Holliday, A., Kullman, J. and M. Hyde (2016). *Intercultural Communication: An Advanced Resource. Book for Students*. Taylor & Francis – Example A2.3.1. Understanding Supervisor, pp. 34–35. • Handout 1 – The Understanding Supervisor. • Handout 2 – A Table Illustrating Jeremy's Behaviour And Jabu's Reaction To It. • Handout 3 – A table illustrating the language of Jeremy and Jabu's feelings (A flip chart could be used instead of this).
CROSS- CURRICULAR LINKS	Methods of Teaching of English Course
PREPARATION	• Copy Handout 1–16 pcs. (one per student). • Copy Handout 2–8 pcs. (one per student in a pair). • Cut Handout 2 in order to have the different parts of the activity – one for Student A an d one for Student B. • Copy Handout 3 on an A3 sheet – 2 pcs. (one per group).
POSSIBLE PROBLEMS AND SOLUTIONS	• **The teacher forgets the handouts** – The T. uses the projector and presents Handout 1; The T. draws the table of handout 2 on board but writes only the instances of Jeremy's behaviour; the teacher writes the task from handout 3 on the board. • **Some students are absent** – The T. changes the number of students in the groups accordingly.

INTERESTING PRACTICE LESSON IMPLEMENTATION PLAN

No	Stage / Time	Procedure	Purpose(s)	Interaction Patterns
		Pre-Task Stage		
1.	**Warm-up** ~ 15 min	The T. asks Ss to speculate about the qualities of an "understanding supervisor". Ss form groups of 4 and discuss what these qualities are. Each group has to fill in a mind map. When ready, a speaker of the group presents it to the other groups.	• to introduce the new topic • to raise Ss' interest in the new lesson; • to brainstorm the qualities an understanding supervisor needs to possess.	T – Ss S – Ss Ss

Task Stage				
2.	**Discussion (1)** ~ 15 min	The T. gives Ss some phrases and words which they can find the text entitled “The Understanding Supervisor”. Ss discuss their ideas and then the T. asks some of them to share what they think happens in the story.	• to keep Ss interested in the lesson; • to develop Ss’ skills for making predictions based on some preliminary information .	T – Ss S – S
3.	**Preparation of a story** ~ 20 min	Ss form different groups of 4. The T. asks them to write the story of Jabu and Jeremy under the title “The Understanding Supervisor”.	• to develop SS’ writing skills in English; • to develop Ss’ analytical skills; • to develop SS’ idea of the relationship between Jeremy and Jabu.	S – Ss
4.	**Story sharing (Reporting)** ~ 15 min	A volunteer reads the story written by the group to the class. T. asks Ss if their stories are the same. T. asks Ss from the other groups to say how their stories are different.	• to develop Ss’ skills for listening for details; • to develop Ss’ skills for critical analysis of texts.	T – Ss S – Ss
5.	**Discussion (2)** ~ 20 min	The T. gives to Ss the original text of the story. Ss read it and compare with their stories. The T. asks Ss to tell her how they feel about the text. Ss have to share their ideas. T. asks Ss to answer some questions on the text. T. divides Ss in pairs. Gives them Handout 2. Ss have to find examples in the text of Jeremy’s behaviour and Jabu’s reaction to it.	• to develop Ss’ skills for critical analysis of texts; • to focus Ss’ attention on the demonstration of power in language; • to focus Ss’ attention on the role of stereotypes in intercultural communication.	T – Ss S – S

Post Task Stage				
6.	**Text analysis and review** ~ 20 min	The T. focuses Ss' attention on the language used by Jeremy while communicating with Jabu. The T. divided the class into two groups and gives each group a flipchart. Ss have to fill in the words of Jeremy and Jabu's reaction to them. The two groups present their flipcharts and discuss their answers. The T. introduces the idea of "false sharing" and 'culturalist language'	• to develop Ss' skills for analysis and interpretation of language used in texts; • to intensify the link between language and power in discourse; • to raise Ss' awareness of the role of language as a tool for discrimination and marginalisation.	T – Ss S – Ss
7.	**Follow-up** ~ 5 min	The T. rounds up the discussion and summarises the main learning points. The T. sets the HW for the next lesson.	• to summarize the key learning points; • to comment on learners' performance; • to give the homework for the next lesson; • to explain what is not clear.	T – Ss

DESCRIPTION OF THE LESSONS STEPS

Pre-Task Stage

1. WARM-UP

The T. starts the lesson by telling students that they will continue working on the topic from the previous week – intercultural communication but they will add another perspective – intercultural communication in the classroom. Since the main participants in classroom discourse are university teachers and their students, the T. tells Ss that they will focus on the relationship and the language used between supervisors and the students with whom they work.

The T. explains to Ss that they will work with a text which is entitled "The Understanding Supervisor". She asks the Ss to form groups of 4 and speculate about the qualities which the understandings supervisor needs to possess when he/she works with students (incl. students with a different cultural background).

Each group fills in a mind map. While they work, the T. monitors them and gives clues about the qualities if necessary – e.g. *knowledge, personality, skills, competences, language used in the classroom and communication with students* etc. When ready, a speaker of the group presents their ideas to the other groups. Ss compare and contrast their ideas and come to an agreement of the qualities an understanding supervisor needs to possess.

Note: The Warm-up stage corresponds to the Pre-task stage in the *Task-Based Approach* where the teacher introduces the topic and gives instructions to students about the things they will have to do in order to complete the tasks in the Tasks stage.

Task Stage

2. DISCUSSION

The T. writes on the board the following phrases and words from the text to students: *tribe,* difficulty keeping up with people from his culture, *the only international student, understands her culture, speaks slowly, involved in a three-year science education project, friendly, South Africa, her tribe, helping her to understand concepts, difficulties competing with others.* The T. explains to Ss that these phrases can be found in the text "The Understanding Supervisor" but that they do not appear in this order. She also gives the names of the main characters – Jabu and Jeremy.

Ss work in pairs and discuss their ideas. The T. asks some of them to share their ideas on what they think happened in the story. Remember not to tell them if their guesses are right or wrong!

3. PREPARATION OF A STORY

The T. asks Ss to form groups of 4. The groups comprise of different Ss compared to the first groups formed in the Warm-up stage. Ss have to write a story entitled "The Understanding Supervisor". They have to use the phrases given by the T.

4. STORY SHARING (REPORTING)

When ready, a volunteer from one of the groups reads their story. The other groups listen and compare with their stories. T. asks Ss if their stories are the same and if they are different, Ss have to say how their stories are different.

5. READING COMPREHENSION AND SPEAKING

The T. gives to Ss **Handout 1** which contains the original text of the story "The Understanding Supervisor". Ss read it individually and compare their stories.
When ready, the T. asks Ss to tell her how they feel about the text. Ss share their ideas.
The T. asks the following questions:

(1) *What happens in the relations between Jabu and Jeremy? Why?*
(2) *How does Jeremy develop his image of Jabu? Does he have any preliminary notions of her culture that have an effect on his perception of Jabu?*

Possible answers to the questions:

Answer to question 1:

It is clear from the very beginning of the story that there is some difficulty in the communication between Jabu and Jeremy. We can the anger Jabu at the very start of the story which is provoked by the fact that Jeremy claims that he knows her "context" very well. But in fact he knows nothing about her life, her family, he past. Her irritation and dissatisfaction with the communication with Jeremy grows further as Jeremy speaks to her slowly led by the belief that she may have difficulties understanding English. This, however, does not correspond to the real situation. His audacity to think that Jabu will not be able to compete with white students is another factor which repels Jabu and causes her unwillingness to communicate with him. The topics, which they discuss after she presents her assignments to him, do not improve the quality of their communication; rather they further intensify the problems. The topics put forward by Jeremy are topics which, according to Jabu, he will never use to talk about with the German student he supervises. And she is also more than sure that Jeremy will never ask this German student whether he is 'still in contact with his tribe'.

Answer to question 2:

The notion of Jeremy about Jabu is based on his preliminary picture of her and not on what he observes. His preliminary picture of Jabu is a result of the pictures he has constructed during his stay in South Africa and the experience gathered while working on the three-year science education project in secondary schools. Jeremy wrongly assumes that all black people who come from South Africa share the same features – they have difficulties understanding English, they come from a society and a culture that are less developed and they have problems competing with other people (esp. with white people). Jeremy's thinking about Jabu is stereotypical as the construction of the image which he has for all black people (including her) prevents him from really getting to know the young woman. He is trying to fit Jabu to the frame which he already has about black African people and this does not allow him to even think that he could be different from this preliminary conceptualization.

(The answers are based on the analysis of the "Understanding Supervisor" *made in* Holliday, A., Kullman, J. and M. Hyde (2016). *Intercultural Communication: An Advanced Resource Book for Students*. Taylor & Francis – Example A2.3.1. Understanding Supervisor, pp. 35–36).

The T. asks Ss to work in pairs. They have to find the answer to the question:

(1) *How the image that Jeremy has of Jabu finds expression in his behaviour towards her? How does Jabu feel as a result of this?*

Ss have to find examples in the text that illustrate Jeremy's behaviour and Jabu's reaction to it and fill in **Handout 2.** Ss compare their answers within the pair. Volunteers present the answers to the class. If necessary, a short discussion is held to explain why the specific statements are used in the table.

Note: The tasks described above contribute to the development of the Task Stage where the teacher's role is mainly of a facilitator, a guide to the students who work independently to complete the tasks set.

Post Task Stage

6. TEXT ANALYSIS AND REVIEW

The T. asks a new question – *Can we find examples of Jeremy's picture of Jabu only in his behaviour?* Ss answer the question orally.

Possible answer to the question: *Examples of Jeremy's picture of Jabu can be traced also in the language he uses to communicate with her.*

The T. divides the class into two groups and gives them a flipchart or Handout 3 printed on an A3 sheet of paper where they have to write the key words and phrases from the text (said by Jeremy) and Jabu's reaction to them.

Possible way for filling in the flipchart in Handout 3:

Key words and phrases	***How does Jabu feel?***
• *knows 'her context'* • *'alien' concepts to her* • *"what it was like, with her history, .."*	• *different from the other students, special in a bad way* • *more inferior than the other students*

• *"suddenly have to compete in every sphere""as though he was surprised that she could do it at all"* • *"kind" face* • *"food", "rituals", "marriage practices" u "ceremonies" in "her culture"* • *"her tribe"* • *"does have some difficulty meeting deadlines … that's something deep in her culture?"*	• *can't compete with others, esp. with white students* • *She comes from a less developed culture* } *feels inferior*

The two groups present their flipcharts and comment on the information they have filled in by adhering to the question set.

While discussing the answers of Ss the T. introduces the idea of '**false sharing'.**

Possible way of introducing 'false sharing':

We came to the conclusion that Jeremy thinks that Jabu's culture as inferior than his own. Treating others in an inferior way while communicating with them is referred to 'false sharing'. In the story Jeremy shows a 'false interest' to Jabu because although Jeremy "is probably right and sincere in wanting to share; … he is sharing with an image of Jabu which he has constructed, while the real Jabu exists in a very different world. What reveals Jeremy's mistake in Jabu's observation that if she were German, he would not make references to 'marriage practices, ceremonies and tribes', and as German society must be complex, just like hers, he must have selected there topics when talks to her because they have some sort of exotic value, which in turn implies, for her, some sort of backwardness. This type of Otherness is often difficult to pin down. Jeremy could equally have cultural imaginations about German society, which would indeed be reflected in the choice of topics when talking to his German student – perhaps connected with being organised or militaristic. In Jabu's case, coming from a part of the world where there is a colonial history, there is indeed and expectation of another type of cultural imagination, akin to Orientalism in the Middle and Far East, where certain aspects of societies have been sensationalized by the West to feed a deep view that they are indeed 'backward' and 'lascivious'. … They key word of Jeremy's choice of topics is 'tribe'. Although this term might be in common usage to refer to certain types of social grouping, perhaps even by Jabu herself, when used by Jeremy, it rings 'primitive', lacking in state organization and 'pre-literate', and colours his reference to the other things on his list. Therefore, 'wedding practices, ceremonies and rituals 'become' primitive'. Jabu is thus being 'tribalised' by Jeremy."

[Holliday, A., Kullman, J. and M. Hyde (2016). *Intercultural Communication: An Advanced Resource Book for Students.* Taylor & Francis – Example A2.3.1. Understanding Supervisor, pp. 36–37.]

The T. narrows down the scope of the analysis by asking another question – *Does Jeremy realise the power of his language?* and asks Ss to support their answers with arguments.

Possible answer to the question: *Jeremy does not realise the effect of the language he uses. If he were aware of the fact that he was underestimating the qualities of Jabu or that he was making her feel inferior and primitive compared to the other students, perhaps he would not use that language. He would have not asked about her tribe, about the rituals and ceremonies; he would not even tell her that she would have problems competing with others and that being late submitting her assignments, is a product of 'her culture'.*

Despite the fact that Jabu decodes his racist attitude, Jeremy's interest to her is in fact his interest towards her culture. That's why we can claim that his attitude towards her and the underestimating of her culture is essentially culturalist. Jeremy is influence by a dominant way of speaking which is not based on immediate evidence but on stereotyping leading to prejudice.

*When referring to the power of language when communicating with others, it is necessary to point to what is known as "**politically correct language**", i.e. the use of language which is not discriminate, marginalize, humiliate or underestimate a group of people against other groups of people.*

7. FOLLOW-UP

The T. rounds up the lesson by asking Ss to make conclusions on the basis of the activities. To help Ss do this, the T. may ask the following question – *What is the conclusion we can make on the basis of the story of Jabu and Jeremy?*

Possible answer to the question: *It is important to pay attention to the language we use when we communicate with others as language has the power to make the cultural other 'inferior'. It is through language that we can patronize others and make the other participant in a communicative situation feel primitive.*

The T. sets a task for homework – *Ss have to think of a situation in which they have been in Jabu's position and describe it in written form.*

Materials used in the lessons

Handout 1

The Understanding Supervisor

Jeremy was a university lecturer. He was very pleased when he heard he was going to supervise Jabu, a student from a country that he had visited several years ago when he had been involved in a three-year science education project in secondary schools. He therefore felt he knew where she came from more than his colleagues. He felt he would clearly be the best person to help her to get through her research project. He has also read quite a few things on cultural difference, which interested him a great deal.

Jabu first met Jeremy during a class he was teaching on introducing science research. She was the only 'international' student there and felt quite angry when, during introductions, he announced to all the other students that he knew her 'context' very well. She was not sure whether it was something about his tone of voice – as though he was speaking about someone who had a handicap of some sort – or his speed of voice – as though she might not understand normal English – or that she was being separated out of all the other students as needing some sort of special attention – which annoyed her. Or perhaps it was that he was making out that he understood her and was on her side. What could he possibly know about her and her background which would give him this right! Even her closest friends at home did not presume that they knew her so well that they could speak for her like this – except perhaps her mother – and every daughter knows that story!

She could see at their first tutorial that he really was trying his best, but he still maintained his slow tone of voice. At least he wasn't shouting as some people did when they thought you might not understand. Then – he began to explain to her that he understood something about 'her culture', and that therefore he would be able to help her to meet deadlines and to 'understand concepts' that might be 'alien' to her. He even said that he knew what it was like, with her 'history', that she had to 'suddenly have to compete in every sphere'. It took her a moment to understand what he was getting at. Then she realized that he was having the ignorant audacity to be thinking that she might have difficulty keeping up with people from what she imagined he would call 'his culture'.

This sort of thing became the norm for their meetings. When she showed him work he always made a big thing about saying how well she had done – as though he was surprised that she could do it at all. Then there were lots of informal 'friendly' bits of conversation, in which he always put on a very 'kind' face, about 'food', 'rituals', 'marriage practices' and 'ceremonies' 'in her culture'; and once he even asked her if she 'was still in contact with her tribe'. He was also supervising a German student; and she

was sure he never asked *him* about 'food', 'rituals', 'marriage practices', 'ceremonies' and 'tribes'.

One day Jabu really felt like giving up the whole thing and going home. She was walking down the corridor toward Jeremy's office. He was standing in the corridor talking to a colleague. He hadn't seen her; and he was saying, "Well, she does have some difficulty meeting deadlines; but of course that's something deep in her culture, isn't it". She knew as a matter of fact that she was having no more difficulty than any of the other students; an anyway, even if she was, why should it have anything to do with her 'culture'? There was a Welsh student who always missed deadlines, and no-one would have suggest this was anything to do with 'Welsh culture'.

From Holliday, A., Kullman, J. and M. Hyde (2016). *Intercultural Communication: An Advanced Resource Book for Students*. Taylor & Francis – Example A2.3.1. Understanding Supervisor, pp. 34–35.

Handout 2

Task: Find examples in the text that illustrate Jeremy's behaviour and Jabu's reaction to it. Fill them in the table. Compare your answers with those of your partner.

Student A

Jeremy thinks he is being understanding and inclusive because:	***Jabu feels patronised, Othered and the victim of racism because:***
1. He shows he understands her cultural circumstances and special needs	
2.	He makes her a special cultural case. He implies the inferiority of what he has constructed as 'her culture'. He fails to imagine she could be like others.
3. He speaks slowly and carefully.	
4. He shows interest in her culture. Jeremy asks her about the food, the marriage practices, the rituals and even about 'her tribe'.	
5.	*Jeremy uses language which proves her inferiority.*

✂ ---------- ✂ ----------✂ ----------✂ ----------✂ ----------✂ ----------✂ ----------✂ ----

Student B

Jeremy thinks he is being understanding and inclusive because:	***Jabu feels patronised, Othered and the victim of racism because:***
1.	*She doesn't want to be made someone 'special' by someone who could not possibly understand. He has no right to presume that she has special needs. He is treating her as inferior to other because of a limited understanding of how she is. She feels invaded.*
2. He reationalises her shortcomings in terms of 'her culture'.	
3.	Before he even meets her, he assumes she will have difficulty understanding. He treats her as though she is handicapped.
4.	*He over-emphasises the exotic aspects of her culture which imply backwardness. Jabu thinks that he would not use the same topics to talk to the German student he supervises.*
5. He makes reference to cultural concepts she will not understand.	

Note: Students in the pair get a different version of the table. While working in pairs, they complete the information gap activity and compare their answers.

Handout 3

Task: Find and note down the key words and phrases which present the picture of Jabu as created by Jeremy? What is Jabu's reaction to these words? How does she feel in the situation?

Key words and phrases	***How does Jabu feel?***

INTERESTING PRACTICE EXAMPLE ON TASK-BASED LEARNING NO 3

Submitted by:	Surong Li
Project partner university:	Liaoning Institute of Science and Engineering (China)

PART A. GENERAL INFORMATION ABOUT THE INTERESTING PRACTICE	
TITLE OF THE INTERESTING PRACTICE	"THREE POINT" PEDAGOGICAL METHODS
IMPLEMENTED IN THE COURSE	Intensive Reading
TYPE OF COURSE	Face-to-face
UNIVERSITY	Liaoning Institute of Science and Engineering
PEDAGOGICAL TEAM INVOLVED IN IT	Surong LI, Yingxin CHENG, Yue SHEN, lu DAI, Haiyan FENG

PART B. TARGET GROUP	
TARGET GROUP	**AGE GROUP OF STUDENTS:** ☒ 18–24 □ 25–34 □ 35–44 □ 45–54 □ 55–64 □ 65+ **LEVEL OF EDUCATION:** □ ISCED 5 (Short cycle tertiary education) ☒ ISCED 6 (Bachelor degree) □ ISCED 7 (Master degree) □ ISCED 8 (Doctoral degree) □ Other (Please, specify):

PART C. KEY SKILLS REQUIRED FOR PARTICIPATION / ENTRY IN THE COURSE	
TRANSVERSAL SKILLS AND COMPETENCES	☐ COMMUNICATION IN THE MOTHER TONGUE ☒ COMMUNICATION IN FOREIGN LANGUAGES ☐ DIGITAL COMPETENCES ☒ LEARNING TO LEARN ☐ SOCIAL AND CIVIC COMPETENCES ☐ ENTREPRENEURIAL COMPETENCES ☒ CULTURAL AWARENESS AND INTERCULTURAL COMMUNICATION COMPETENCE
SUBJECT SPECIFIC COMPETENCES AND SKILLS	☒ RELATIVELY FLUENT LANGUAGE ARTICULATION ☒ COOPERATIVE SPIRIT AND TEAM WORK ABILITY

PART D. SPECIFIC INFORMATION OF THE INTERESTING PRACTICE	
TOPICS OF THE LESSON	Your College Years
DURATION:	100 MIN
AIMS OF THE MODULE	• To establish the academic, affectionate, sexual, cultural identity during the college years; • To accumulate the language key points.
OBJECTIVES (OUTCOMES)	**BY THE END OF THE MODULE STUDENTS WILL BE ABLE TO:** • know exactly the current situation of oneself in the college years; • establish the cultural awareness in different language background; • grasp the essence of the key expressions.
KEY SKILLS	• logical thinking mode; • teamwork capability; • self-evaluation and peer-evaluation awareness; • self-reflection ability.
LEARNER-CENTRED METHODS ADDRESSED:	Problem based learning ❑ Discovery learning ❑ Task based learning ☒ Small group, self-instructional and project-based learning ❑ Experiential and reflective learning ❑ Peer evaluation and learning contracts ❑

MATERIALS / AIDS / EQUIPMENT	• Multimedia assistance; • Hand-out materials; • APPs on the Mobile phones.
CROSS- CURRICULAR LINKS	Computer skills and Humanity courses
PREPARATION	• Preparing the suitable materials related to the topic of this unit in paper and on the phones, and preparing some reflective questions before the lesson, designing the procedure of the class, then taking some precautions.
POSSIBLE PROBLEMS AND SOLUTIONS	• Students need guidance of the teacher to specify some detailed and confusing issues; • The psychological factors as well as the personal characteristics of the students.

INTERESTING PRACTICE LESSON IMPLEMENTATION PLAN

No	Stage / Time	Procedure	Purpose(s)	Interaction Patterns
1.	Warm-up	List similar experience related to the topic of the unit	• To arouse the interests.	T – Ss
2.	Lead-in	Reflective questions	• To get ready to the topic.	T – Ss
3.	Direct	Guidance of the topic	• Teaching goals set before the class.	T – Ss
4.	Group-work	Materials hand out	• Arouse the innate curiosity to learn.	S – Ss
5.	Interaction	Collect the feedback	• Correct, direct, evaluate.	T – Ss
6.	Follow-up	After class tasks	• Review and self and peer-reflection.	S – S

DESCRIPTION OF THE LESSONS STEPS

Three-Point Pedagogical Method puts more focus on the three aspects:

- **First**, the pin-point and refined lectures;
- **Second**, more practical experience among the learners in the class;
- **Third**, more fruitful interactions between learners and teachers.

Accordingly, teachers are required to think, read and prepare more before the class, and try to take the true needs of the learners which are always varying and keeping the pace with the time into the consideration, then, in the class, all the procedures are set to meet the need and complete the teaching goals of the unit.

Teachers, therefore, should have a comprehensive master and general opinion in the class, and in the beginning stage of the lesson, all the materials , printed or APPs on the mobile phones, are given to the groups(usually 3–7 learners) formed according to the understanding of the teachers towards their learning capabilities. Those materials can give assistance for the learners to clarify the goals of the unit. During the group-work, teachers are the observers who assess the efficiency and validity among each group, subsequently; the teachers will modify the pace of the unit. Before the class ends, the task is assigned to each group, which is designed to reflect the contents and think more by oneself and among the peers.

INTERESTING PRACTICE EXAMPLE ON TASK-BASED LEARNING No 4

Submitted by:	Shujie QU
Project partner university:	Lingnan Normal University (China)

PART A. General information about the interesting practice	
Title of the interesting practice	Implementing Task-based Learning in American Literature
implemented in the course	American Literature for Seniors in the English Education Department
Type of Course	Face-to-face
University	Lingnan Normal University
Pedagogical Team involved in it	Liu Liping

PART B. TARGET GROUP	
TARGET GROUP	**AGE GROUP OF STUDENTS:** ☒ 18–24 □ 25–34 □ 35–44 □ 45–54 □ 55–64 □ 65+ **LEVEL OF EDUCATION:** □ ISCED 5 (Short cycle tertiary education) ☒ ISCED 6 (Bachelor degree) □ ISCED 7 (Master degree) □ ISCED 8 (Doctoral degree) □ Other (Please, specify):

PART C. KEY SKILLS REQUIRED FOR PARTICIPATION / ENTRY IN THE COURSE	
TRANSVERSAL SKILLS AND COMPETENCES	□ COMMUNICATION IN THE MOTHER TONGUE ☒ COMMUNICATION IN FOREIGN LANGUAGES □ DIGITAL COMPETENCES ☒ LEARNING TO LEARN ☒ SOCIAL AND CIVIC COMPETENCES □ ENTREPRENEURIAL COMPETENCES ☒ CULTURAL AWARENESS AND INTERCULTURAL COMMUNICATION COMPETENCE

SUBJECT SPECIFIC COMPETENCES AND SKILLS	**SUBJECT SPECIFIC COMPETENCES:** • **KNOWLEDGE:** – FACTUAL AND LITERARY KNOWLEDGE; – CULTURE SPECIFIC KNOWLEDGE – ANALYSING BASIC INFORMATION ABOUT THE AUTHORS AND THEIR REPRESENTATIVE MASTERPIECES (E.G. CHARACTERIZATION, PLOT, THEME ETC.). • **LITERARY AWARENESS;** • **CAPACITY TO:** – EVALUATE CRITICALLY THE LITERARY WORKS' THEME, WRITING STYLE; – OPERATE WITH NEW KNOWLEDGE AND TO ACQUIRE NEW KNOWLEDGE OF AMERICAN LITERATURE; – EXPRESS THEIR OWN VIEWS IN ENGLISH FREELY TO OTHERS. **SUBJECT SPECIFIC SKILLS:** • ABILITY TO ASSOCIATE THE SPECIFIC HISTORICAL AND POLITICAL BACKGROUND WITH A PIECE OF WRITING; • ABILITY TO INTERPRET AND EVALUATE THE TARGET AMERICAN WRITER AND HIS WORKS; • ABILITY TO MAKE USE OF SOME SPECIFIC LITERARY THEORY FOR THE INTERPRETATION AND EVALUATION OF LITERARY WORKS. **ATTITUDES:** • OPENNESS; • TOLERANCE; • RESPECT TOWARDS OTHERNESS.

PART D. SPECIFIC INFORMATION OF THE INTERESTING PRACTICE	
TOPICS OF THE LESSONS	Uncle Tom's Cabin
DURATION:	90 MIN (a series of 2 consecutive 45 min. lessons)
AIMS OF THE LESSONS	• students are to gain insight into the historical background(the agrarian south and the industrial north, slavery and freedom), the authoress Harriet Beecher Stowe's life and literary career; • students are to critically interpret uncle tom's cabin : the themes; • to develop students' skills for critical reading of the selected excerpts and for interpreting and appreciating the language used in them.

OBJECTIVES (OUTCOMES)	**BY THE END OF THE MODULE STUDENTS WILL BE ABLE TO:** • recognise how literature reflects social reality and the other way round; • recognize in what way the author's own life experience influences her writing and characterization; • read critically texts and analyse the language used in them as a means for enhancing language proficiency.
KEY SKILLS	• critical reading of texts; • critical thinking; • analytical skills; • skills for working in a team; • self-directed learning skills; • self-assessment and assessment of the work of peers.
LEARNER-CENTRED METHODS ADDRESSED:	Problem based learning ❑ Discovery learning ❑ Task based learning ☒ Small group, self-instructional and project-based learning ❑ Experiential and reflective learning ❑ Peer evaluation and learning contracts ❑
MATERIALS / AIDS / EQUIPMENT	• Wu Weiren (2013). *History And Anthology Of American Literature*. Harriet Beecher Stowe: Uncle Tom's Cabin, pp. 20–39.
CROSS- CURRICULAR LINKS	Methods of Teaching English
PREPARATION	• To organize the teaching procedures. • To prepare the topics for discussion.
POSSIBLE PROBLEMS AND SOLUTIONS	• **Students might forget to preview** – Give them 3–5 minutes in class to read and exchange ideas in groups to gain preliminary information needed for further understanding.

INTERESTING PRACTICE LESSON IMPLEMENTATION PLAN

No	Stage / Time	Procedure	Purpose(s)	Interaction Patterns
		Pre-Task Stage		
1.	**Warm-up** ~ 10 min	The T. asks Ss to read the text information and discuss in groups of 4 about the historical background information and Harriet Beecher Stowe's prolific information Ss are to share with the whole class what they learn about the time and the author.	• to introduce the new topic; • to raise Ss' interest in the new lesson; • to prepare Ss for further understanding and discussion.	T – Ss S – Ss
		Task Stage		
2.	**Discussion (1)** ~ 20 min	The T. asks Ss to work out the plot of *Uncle Tom's Cabin*; Ss are supposed to discuss in English and try to come up with the whole story and be able to report the complete plot.	• to keep Ss interested in the lesson; • to develop Ss' skills for expressing ideas in English.	T – Ss S – S
3.	**Show time** ~ 10 min	Each week, Ss in group of 6 is to give a performance in class.(a pre-assigned task. The very first time of a new semester, the T assigns the Ss to choose an American literary story not included in the text book, and act the story out).	• to develop SS' speaking skills in English; • to expand Ss' horizon by knowing more American Works; • to develop SS' drama-acting skills.	S – Ss
4.	**Story appreciation** ~ 15 min	The T asks Ss to read closely the excerpts in the textbook and figure out the part they appreciate the most and they are to justify their choice	• to develop Ss' skills for critical analysis of texts; • to develop Ss' English reading skills .	T – Ss S – Ss

5.	**Theme discussion** ~ 15 min	Ss switch group members and exchange with each other their idea about the theme of the story.	• to develop Ss' skills for critical analysis of texts; • to develop Ss' skills for critical analysis of texts.	T – Ss S – S
Post Task Stage				
6.	**Writing style analysis** ~ 10 min	Ss are required to focus on the language of the text and come up with the writing style of the authoress'.	• to develop Ss' skills for analysis and interpretation of language used in texts; • to develop Ss' English reading skills.	T – Ss S – Ss
7.	**Follow-up** ~ 10 min	The T. rounds up the discussion and summarises the main learning points. The T. sets the HW for the next lesson.	• to summarize the key learning points; • to comment on learners' performance; • to give the homework for the next lesson; • to explain what is not clear.	T – Ss

DESCRIPTION OF THE LESSONS STEPS

Pre-Task Stage

1. WARM-UP

The T. starts the lesson by previewing the topic discussed last week and introducing to Ss the new topic. During this process, Ss are to share what they learned in the last session. With regards to the new topic, in case some students don't pre-read, they will be given some time to refer to the textbook and then discuss in groups of 4 what they know about the time and author.

Note: The Warm-up stage corresponds to the Pre-task stage in the *Task-Based Approach* where the teacher introduces the topic and gives instructions to students about the things they will have to do in order to complete the tasks in the Tasks stage.

Task Stage

2. DISCUSSION

The target story is Uncle Tom's Cabin, so in this discussion process, Ss are to work in groups of 4 the plot of the novel. Detailed information is essential, for after discussion, some of them are supposed to tell the whole class what happens in the novel.

3. SHOW TIME

Each week, a group of 6 is to perform to the class an acting. The performance should be based on an American story and the story should not be included in the textbook. Hopefully, by doing so will Ss' horizon be broadened. This procedure can enliven the class atmosphere.

4. STORY APPRECIATION

In this part, the T asks the Ss to focus on the original text in the textbook to read closely the words, sentences and ideas. While reading, they are supposed to find out the part they appreciate the most. Afterwards, some of the Ss are to share with the whole class the part they are fond of and justify their choice.

5. THEME DISCUSSION

The T. leads the Ss into this discussion by stating that Uncle Tom's Cabin is an anti-slavery novel. Apart from this theme, what are the other thematic matters dealt with in it.

6. WRITING STYLE DISCUSSION

After the previous tasks, Ss have already had a fuller and more thorough understanding of the story. So this time, they are to work on the writing style of the novel. Examples are supposed to be cited from the text to support their view.

Note: The tasks described above contribute to the development of the Task Stage where the teacher's role is mainly of a facilitator, a guide to the students who work independently to complete the tasks set.

7. LESSON SUMMARY AND REVIEW

At the end of the session, the T asks Ss to sum up what they gained from the discussions and appreciations. To obtain more specific information, the T can ask questions like: "As far as the major character Eliza is concerned, what is the best quality in her you

appreciate the most? ""For Uncle Tom, it's no doubt a tragic story, and what do you think caused his death?"

Materials used in the lessons

Beecher-Stowe, H.(1852). *Uncle Tom's Cabin*. [online] – Chapter VII. The Mother's Struggle – https://www.saylor.org/site/wp-content/uploads/2011/11/SAYLOR-ENGL405-7.3-UNCLETOM.pdf [Retrieved 12-06-2018]

7.4.3. Interesting practice example in discovery learning

Submitted by:	Dana Zamecnikova, Ivana Marova
Project partner university:	Masaryk University (the Czech Republic)

INTERESTING PRACTICE EXAMPLE ON DISCOVERY LEARNING No 1

PART A. General information about the interesting practice	
Title of the interesting practice	**Inquiry-based Science Education** (IBSE)
implemented in the course / programme	Master degree
Type of Course	Face-to-face
University	Masaryk University, Brno
Pedagogical Team involved in it	RNDr. Eva Trnová, PhD.

PART B. TARGET GROUP	
TARGET GROUP	**AGE GROUP OF STUDENTS:** ☒ 18–24 ☒ 25–34 □ 35–44 □ 45–54 □ 55–64 □ 65+ ☒ Mathematical competence and competences in science and technology **LEVEL OF EDUCATION:** □ ISCED 5 (Short cycle tertiary education) □ ISCED 6 (Bachelor degree) ☒ ISCED 7 (Master degree) □ ISCED 8 (Doctoral degree)

PART C. KEY SKILLS REQUIRED FOR PARTICIPATION / ENTRY IN THE COURSE	
TRANSVERSAL SKILLS AND COMPETENCES	☒ Communication in the mother tongue □ Communication in foreign languages ☒ Digital competences □ Learning to learn □ Social and civic competences □ Entrepreneurial competences □ Cultural awareness and intercultural communication competence

PART D. SPECIFIC INFORMATION OF THE INTERESTING PRACTICE	
TOPIC OF THE MODULE	**IBSE MODULE – INNOVATIVE TEACHING/LEARNING STRATEGY IN SCIENCE EDUCATION**
DURATION:	360 MIN (THREE 45 MINUTE LESSONS)
AIMS OF THE MODULE	1) To increase: • students' interest in science linking the curriculum with everyday life; experimental skills of student; • student-centred emphasis on scientific problem solving and decision making.

AIMS OF THE MODULE	2) To develop students skills to determine the research question. 3) To develop students' analytical skills in determination of research question. 4) To facilitate the development of professional skills in innovative methods.
OBJECTIVES (OUTCOMES)	**BY THE END OF THE MODULE STUDENTS WILL BE ABLE TO:** • formulate research questions; • solve problem connected with everyday life; • design and perform experiment; • implement IBSE attitude in their teaching practice;
KEY SKILLS	Experimental skills, skills connected with decision making, skills to perform inquiry, professional teaching/learning skills
LEARNER-CENTRED METHODS ADDRESSED:	Problem based learning ❑ Discovery learning ☒ Task based learning ❑ Small group, self-instructional and project-based learning ☒ Experiential and reflective learning ❑ Peer evaluation and learning contracts ❑
MATERIALS / AIDS / EQUIPMENT	Glass bottle, Special equipment for simulation of the vacuum, Printed materials.
CROSS- CURRICULAR LINKS	IBSE modules links physics, chemistry and biology.
PREPARATION	Printing materials and glass and made special equipment.
POSSIBLE PROBLEMS AND SOLUTIONS	Inability to prepare materials, special equipment, misunderstanding of the IBSE principles.

INTERESTING PRACTICE MODULE IMPLEMENTATION PLAN

No	Stage / Time	Procedure	Purpose(s)	Interaction Patterns
A	**Theoretical part**	Theory of IBSE will be presented to students.	Acquirement of IBSE principles.	T – Ss S – Ss
B	**Exercise Part**	Students carry out IBSE module step by step (1–6) and try different levels of IBSE.	Acquirement of IBSE principle and procedure how to prepare IBSE module.	S – Ss
1	**Warm-up**	Students read story or discuss about problem.	Motivation to solve problem.	T – Ss (whole class work)
2	**Question making**	Students form research questions related to the problem being investigated.	To increase inquiry skills – to formulate research question.	S S – Ss
3	**Experimental work**	Students design and perform experiments and deduce conclusion of them, they try to find answer to research questions.	To develop experimental skills, argumentation skills and decision making.	S – Ss S – S
4	**Presentation and defense of results**	Students present their results and defense them.	To develop presentation skills and argumentation.	T – Ss
5	**Discussion**	Student have to do decision making, argument their procedure and results.	To formulate answer to research question.	T – Ss
6	**Evaluation**	Students carry out self-evaluation and peer-evaluation.	To evaluate own work and classmates work.	T – Ss S – S
C	**Creation of students´ IBSE module**	Students create own new IBSE module.	To apply IBSE theory in practice.	S

D	**Implementation of IBSE module in practice**	Students implement their IBSE module in teaching/learning in partner schools.	To apply and verify IBSE module in practice.	S S – S

Materials used in the module

SAFETY IN SWIMMING AND DIVING

(Module)

Module Teachers: Josef Trna, Eva Trnova (University of Masaryk, the Czech Republic)

TEACHER GUIDE:

1) Scenario:

- **Read the stories and think about them:**

Scenario (story) is used to motivate students and stimulate of problem situations, when students ask questions that they want to solve. A student should read a story in peace.

The first story concerns with the problem of vasoconstriction which is caused by sharp cooling down of the body. Vasoconstriction of the surface vessels increases the blood pressure in the central artery. This sudden increase in blood pressure can cause the collapse of the body or even death.

Who is right?

Peter went cycling with his parents. At noon they came to a river. It was really hot and Peter was very sweaty and looked forward to cool down. He wanted to jump into the cold water immediately. His mother stopped him and told him he had to wait to cool down, because otherwise he could even get drowned. Peter laughed, thinking it was a superstition that parents tell their children, because they are afraid that they might catch a cold. But he is hardy and is not afraid of cold water.

The second story introduces problems concerning endangering health and even life while diving.

Death during diving

News from a TV broadcast: Yesterday famous singer D.N. tragically died during a scuba-diving in the seaside resort of H. Local police spokesman said that the exact cause of death will be clarified by means of autopsy ordered by the court. Senior instructor diving L.T. answered our query what can cause tragedy during diving - it may be a small injury, which is e.g. ruptured eardrum. Details will be included in subsequent news.

2) Problems and questions:

- **Carefully re-read the stories and write down the questions that occur to you:**

All students have again carefully read the text of stories with a challenge to subsequently write their questions which occur to them during reading stories.

1.....
2.....
3.....
4.....
5.....

Students write down their questions into the table.

- **If you have just no ideas, select some of the following questions:**

Less able students, who cannot create their questions about the story they can choose from a compiled questions that are directed to the core problem of both stories.

(a) What properties of water can cause health risks or even death of a man?
(b) Which organs of the human body and why can be damaged during swimming and diving?
(c) What kinds of swimming and diving in the water are risky?
(d) Which rules of safe swimming and diving we follow?

These overviewed questions will be together answered at the end of module in the whole class and linked to students' questions.

- **The following experiments help to answer questions:**

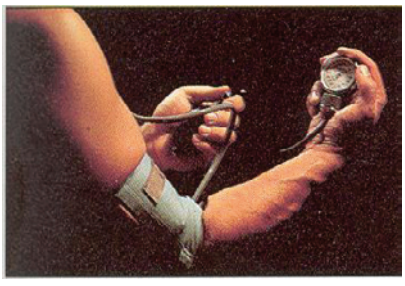
In this place series of experiments are presented, using those students discover necessary phenomena and laws.

Experiments are selected and arranged so that their results help to answer students' questions. These are the model experiments, when the students have to use e.g. analogies between phenomena concerning to air and water (experiment 2–4). It is the application of the second and third level IBSE, where student using exploration (experimentation) is looking for answers to the assigned questions or own questions.

3) Tasks and experimenting:

Experiment 1: Cold test of blood pressure

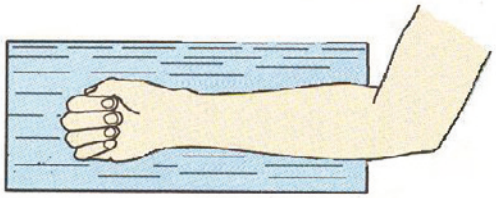
Measure and write down temperature of air in the classroom.



Measure the normal blood pressure in the left arm using s***phygmomanometer. Write this result down.***
Let the cuff on the arm - you will repeat the measurement again.

Measure the temperature of cold water ready to cool the right hand classmates.

Put the right arm into the bucket of cold water. Measure the pressure in left arm again. Once again write down the result.



Compare the results and evaluate the condition of your vessels.
The experiment allows the student to discover blood pressure dependence on cooling of the human body - in this case the arm. We use barometer - (preferably a digital one) and container with cold water as tools. Experiment is safe, it can be carried out without the risk of students. We also use a thermometer to determine the temperature in the room and a thermometer to determine the temperature of cold water.

Results and implications of experiment:

- *The cold phenomenon is caused by the vasoconstriction of vessels and decreased blood flow in the organs - primarily the skin and muscle capillaries are affected. If we are in a cold environment, the vessels in less important tissues, especially surface tissues such as skin and muscle, contract so the blood doesn't cool down and doesn't cool the body core temperature.*
- *Vasoconstriction of the surface vessels increases the blood pressure in the central artery. The amount of change depends on the condition of the vessels, on their reactivity. If the temperature change is rapid and in addition on the large surface of the body, can cause a rapid rise in blood pressure and the collapse of the body, which can cause death.*

Worksheet	***Cold test of blood pressure***			
1.	*Room air temperature:*		*Left arm blood pressure:*	
2.	*Cold water temperature:*		*Left arm blood pressure after cooling of right arm in water:*	

3.	*Difference of temperatures of air and water:*		*Difference of blood pressures:*	
4.	*Results of measuring and observing:*			

Students compare the results of their inquiry (observation and experimentation) with the correct scientific interpretation.

Experiment 2: Modelling of ear-drum rupture under high water pressure of ear-drum rupture under water

The basic experiment aid is a plastic bottle with a wide neck.

The bottle cap is drilled and valve of tire is screwed into it.

Overpressure in the plastics bottles in all experiments is made out by hand-pressing or by a small velocipede tire-pump.

Experimental kit is easy to be built. For time reasons, it is advisable to prepare it before experimentation. From a security point of view it is necessary to use protective goggles or face shield. Plastic bottle is designed to withstand high pressure, yet we permit students to pump only a few times. It must be checked proper and secure closure of the bottle.

We put individual experimental instruments, which are further described, into plastic bottles.

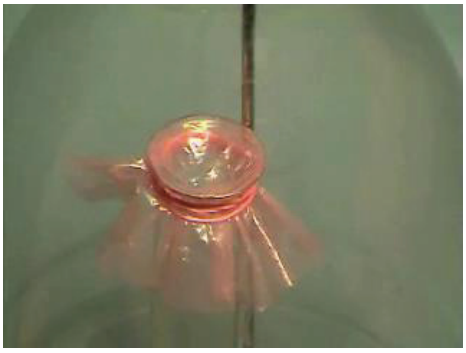
- Cover the mouth of the test tube by the rubber membrane (of an inflatable balloon) and secure with a rubber band.
- Connect the velocipede tire-pump to the valve and pump - you produce overpressure of air in the bottle.

- The membrane under the influence of pressure is bent into the test tube.

- The deflection of the membrane increases with increasing overpressure.

- Replace the rubber membrane with a thin plastic membrane.
- Under the influence of pressure it is also bent into a test tube.

- If overpressure in the bottle is sufficiently great, the plastic membrane ruptures.



The rubber and plastic membranes simulate behaviour of ear-drum during swimming, bathing and diving. Water in ear (ear canal) pushes on ear-drum similarly as air on membranes in the case of our experiment. The result of this pressure is deformation of the eardrum and in the case of high pressure (overpressure) rupture of the ear-drum.

Results and implications of experiment:

- Deformational effect of overpressure force is demonstrated by the rupture of covering membrane on the test tube made out of a piece of plastics bag.
- The plastics membrane simulates the terminal behaviour of ear-drum during swimming, bathing and diving. Water in ear canal pushes on ear-drum by heavy force. The result is the rupture of ear-drum. The implication of this rupture is cutting pain and the loss of space-finding. This is the danger of death for the diver.

Students compare the results of their inquiry (observation and experimentation) with the correct scientific interpretation.

Experiment 3: Compression of lung

- Inflate the rubber balloon inside a plastic bottle.

- The over pressure in the bottle, caused by velocipede tire-pump, causes reduction in volume of the balloon.

- After opening the bottle balloon expands again.

Results and implications of experiment:

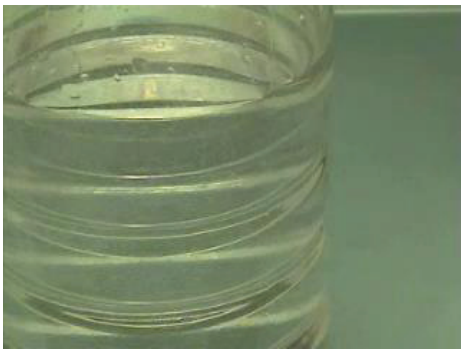
- Deformational effect of overpressure force is demonstrated by changing volume of an inflated small rubber balloon.
- The overpressure under water during diving reduces the lung volume. We are able to breathe spontaneously only about one metre under the water surface. Air must be pumped into our lung by overpressure during diving. At a depth of ten metres the lung volume is reduced to half. If diver emerges too quickly, his lung can be fatally damaged.

Students compare the results of their inquiry (observation and experimentation) with the correct scientific interpretation.

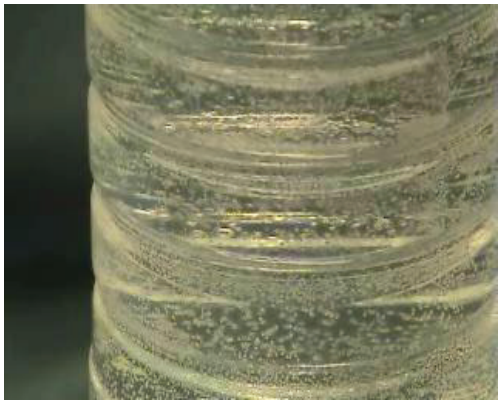
Experiment 4: Dissolving of an air in blood

- The water in a pressurized bottle more air (gas) dissolve than under the normal atmospheric pressure.

- After opening a bottle air bubbles from water will begin to release.



- After the moment it is released large amounts of bubbles.



Results and implications of experiment:

- Air is dissolved into the water in the over pressured plastics bottle. The air (nitrogen) is dissolved into blood during diving. Air embolism is the frequent reason of death after fast emergence.
- During diving the greatest danger is barotrauma which can cause varying degrees of damage of organs or even death. Barotrauma is caused by pressure change within body which has been exposed to a certain period of overpressure and fast emergence on the surface leads to a sudden reduction in pressure. Due to the blood vessels dilate, pressure is changing and blood gases are released and blood starts to froth.

Students compare the results of their inquiry (observation and experimentation) with the correct scientific interpretation.

4) Decision making:

Answer the questions:

- Briefly answer the questions that you are expressed at the beginning of your inquiry.

1.....
Answer:
2.....
Answer:
3.....
Answer:
4.....
Answer:
5.....
Answer:
(a) What properties of water can cause health risks or even death of a man?
Answer:
(b) Which organs of the human body and why can be damaged during swimming and diving?
Answer:
(c) What kinds of swimming and diving in the water are risky?
Answer:
(d) Which rules of safe swimming and diving we follow?
Answer:

Students individually write down answers to the questions before starting the inquiry.

Conclusions and recommendations to the stories:

- **In the left column of the table write down your suggestions and recommendations that in your opinion belongs to these stories. Discuss with classmates and teachers about your opinions. Corrections and additions write down in the right column.**

Worksheet: Who is right?		
	My opinion:	**Correction and supplement after the discussion:**
1.		
2.		
3.		
4.		
5.		

Worksheet: Death during diving		
	My opinion:	**Correction and supplement after the discussion:**
1.		
2.		
3.		
4.		
5.		

Based on own inquiry, the student the earliest fills himself/herself worksheets (tables) in the left part. Then during the discussion student conclusions are clarified and repaired.

COMMENTS AND RECOMMENDATIONS:

Before the implementation of the module teacher should get as much information about diving. Diving is becoming very popular. There are manuals for divers where they are given e.g. tables showing the time required for safe emergence, the principles of safe diving or first aid, etc. Teachers (and students) can find a lot of important information in these manuals. In case of interest it is possible to arrange a discussion with a diving instructor

INTERESTING PRACTICE EXAMPLE ON DISCOVERY LEARNING NO 2

PART A. GENERAL INFORMATION ABOUT THE INTERESTING PRACTICE	
TITLE OF THE INTERESTING PRACTICE	**DISCOVERY LEARNING**
IMPLEMENTED IN THE COURSE / PROGRAMME	Master degree
TYPE OF COURSE	Face-to-face
UNIVERSITY	Masaryk University, Brno
PEDAGOGICAL TEAM INVOLVED IN IT	RNDr. Eva Trnová, PhD.

PART B. TARGET GROUP	
TARGET GROUP	**AGE GROUP OF STUDENTS:** ☒ 18–24 ☒ 25–34 □ 35–44 □ 45–54 □ 55–64 □ 65+ **LEVEL OF EDUCATION:** □ ISCED 5 (Short cycle tertiary education) □ ISCED 6 (Bachelor degree) ☒ ISCED 7 (Master degree) □ ISCED 8 (Doctoral degree) □ Other (Please, specify):

PART C. KEY SKILLS REQUIRED FOR PARTICIPATION / ENTRY IN THE COURSE	
TRANSVERSAL SKILLS AND COMPETENCES	☒ COMMUNICATION IN THE MOTHER TONGUE □ COMMUNICATION IN FOREIGN LANGUAGES ☒ MATHEMATICAL COMPETENCE AND COMPETENCES IN SCIENCE AND TECHNOLOGY ☒ DIGITAL COMPETENCES □ LEARNING TO LEARN □ SOCIAL AND CIVIC COMPETENCES □ ENTREPRENEURIAL COMPETENCES □ CULTURAL AWARENESS AND INTERCULTURAL COMMUNICATION COMPETENCE

PART D. SPECIFIC INFORMATION OF THE INTERESTING PRACTICE	
TOPIC OF THE MODULE	**SCIENCE DISCOVERY LEARNING – INNOVATIVE TEACHING/LEARNING STRATEGY IN SCIENCE EDUCATION**
DURATION:	360 MIN (THREE 45 MINUTE LESSONS)

AIMS OF THE MODULE	To increase: • students' interest in science linking the curriculum with everyday life; • experimental skills of student; • student-centred emphasis on scientific problem solving and decision making; • determine the research question; • students' analytical skills in determination of research question; • students' skills in sing innovative methods.
OBJECTIVES (OUTCOMES)	**BY THE END OF THE MODULE STUDENTS WILL BE ABLE TO:** • formulate research questions; • solve problem connected with everyday life; • design and perform experiment; • implement IBSE attitude in their teaching practice.
KEY SKILLS	Experimental skills, skills connected with decision making, skills to perform inquiry, professional teaching/learning skills.
LEARNER-CENTRED METHODS ADDRESSED:	Problem based learning ❑ Discovery learning ☒ Task based learning ❑ Small group, self-instructional and project-based learning ❑ Experiential and reflective learning ❑ Peer evaluation and learning contracts ❑
MATERIALS / AIDS / EQUIPMENT	Chemical laboratory, materials according to instructions, minerals.
CROSS- CURRICULAR LINKS	Science Discovery Learning links physics, chemistry and biology.
PREPARATION	Printing materials and materials for experiments according to instruction.
POSSIBLE PROBLEMS AND SOLUTIONS	Inability to prepare materials, misunderstanding of Discovery learning principles.

INTERESTING PRACTICE MODULE IMPLEMENTATION PLAN

No	Stage / Time	Procedure	Purpose(s)	Interaction Patterns
A	**Theoretical part**	Theory of Science Discovery Learning will be presented to students.	Acquirement of Science Discovery Learning principles.	T – Ss S – Ss
B	**Exercise Part**	Students carry out Science Discovery Learning step by step (1–6).	Acquirement of Discovery learning principle and procedure how to prepare example of Science Discovery Learning.	S – Ss
1	**Warm-up**	Students read story or discuss about problem.	Motivation to solve problem.	T – SS
2	**Question making**	Students form research questions related to the problem being investigated.	To increase inquiry skills – to formulate research question.	S S – Ss
3	**Experimental work**	Students design and perform experiments and deduce conclusion of them, they try to find answer to research questions.	To develop experimental skills, argumentation skills and decision making.	S – Ss S – S
4	**Presentation and defense of results**	Students present their results and defense them.	To develop presentation skills and argumentation.	T – Ss
5	**Discussion**	Student have to do decision making, argument their procedure and results.	To formulate answer to research question.	T – Ss)
6	**Evaluation**	Students carry out self-evaluation and peer-evaluation.	To evaluate own work and classmates work.	T – Ss S – S

Materials used in the module

CARBON – NATURE OF LIFE

Instruction: **Science** (especially **Chemistry and Biology**)
Grades: **5th to 9th**

Abstract

The essence of this module is to show students that carbon is the fundamental building block of living organisms. Students verify the presence of carbon in organic materials using simple experiments. Students become familiar with the composition of organic compounds. They look for a link between carbon, coal, and wood and burned dish in a pan. They draw conclusions about the importance of carbon. It is possible using simple experiments to present not only carbon but also hydrogen and oxygen in organic matter.

TEACHER GUIDE:

1) Scenario:

Scenario (story) is used to motivate students and stimulate of problem situations, when students ask questions that they want to solve. A student should read a story in peace.

- **Read the stories and think about them:**

1 350 million years ago

It's warm, maybe hot and the air smells damp. Why not? We are in marshes and wetlands and there are huge Equisetaceae and Lycopodiophyta around us. The trees are not small at all. They have grown to 20 m, and some are probably 10 m more. The tree trunk has a diameter of more than 1 m. Giant dragonflies fly among the trees. If there was a man, he would be scared of a plane hurtling at him. This Meganeura has the wingspan of about 75 cm and the body length of about 250 cm. But it is no time to look at Meganeura. Suddenly, the wind rises and brings storm clouds. It starts thundering and becomes overcast. It starts pouring with rain. The water falls from the sky and the wind blows. It looks like a hurricane. Suddenly, trees start falling down. They fall into the swamp and start slowly sinking. Suddenly, the storm fades as quickly as it came.

Some 20 years ago in the coal region near the city of Ostrava

Coal miners work in a deep mine. They break off smaller and larger pieces. Suddenly they break off a piece with a nicely visible leaf. Where did it come from? Is this the magic of dwarves?

http://cs.wikipedia.org/wiki/Soubor:Neuropteris.JPG

Yesterday in our kitchen

I feel like eating something nice. What will I prepare? Maybe I like to have cocoa. I pour a little milk into a saucepan and heat it on an electric stove. Ring, ring. Who is calling? Well, Eva. "How are you?" We keep talking. Suddenly I smell burnt milk. I hang up and hurry to the kitchen. What a mess! When my mother comes home, she will tell

2) Problems and question:

- **Carefully re-read the stories and write down the questions that occur to you:**

All students have again carefully read the text of stories with a challenge to subsequently write their questions which occur to them during reading stories.

1.....
2.....
3.....
4.....
5.....

Students write down their questions into the table.

- **If you have just no ideas, select one of the following questions:**

Less able students, who cannot create their questions about the story they can choose from a compiled questions that are directed to the core problem of both stories.

(a) Is it possible to find the piece of coal with a visible leaf? Which natural process is responsible for the things on the picture number one?
(b) What was the appearance of the saucepan from the short story „Yesterday...”? To what colour has the milk changed? What was the reason for this change?
(c) Is it possible to consider described experiments as an evidence of the presence of carbon in organic materials?
(d) Is it possible to consider described experiments as an evidence of the presence of carbon in organic materials?
(e) How is possible to prove the presence of oxygen in organic substances? What simple compound containing oxygen can help to prove it?

These overviewed questions will be together answered at the end of module in the whole class and linked to students' questions.

3) Tasks and experimenting:

The following experiments help to answer questions:

In this place series of experiments are presented, using those students discover necessary phenomena and laws. Experiments are selected and arranged so that their results help to answer students' questions. These are the model experiments, which support linking theory and everyday life. It is the application of Science Discovery Learning , where student using exploration (experimentation) is looking for answers to the assigned questions or own questions.

❖ Experiment 1: A Evidence of Carbon, Oxygen, Hydrogen in Paraffin

***Equipment and chemicals*:** beaker, petri dish, lime water, paraffin wax candle, pliers

***Procedure*:**

- Place a burning candle in a beaker.
- After a moment, cover this beaker using Petri dish.
- After the extinction of the candle, observe the sides of the beaker.
- Then remove the candle, pour lime water in a beaker, cover it and shake it.
- Write down observed changes, and explain them, if it is possible take the photos.

Worksheet	**Evidence of Carbon, Oxygen, Hydrogen in Paraffin**
Chemicals:	
Chemical equipment:	
Observations: *1. Describe what happened in the beaker when you cover it using Petri dish.* *2. Describe the appearance of the lime water before pouring into a beaker and after pouring into beaker with products of burning.* *3. Which substance was proved by this reaction?*	
Conclusion: *This reaction is able to demonstrate the presence of certain elements in paraffin. What elements are they?*	

❖ Experiment 2: Evidence of carbon in wood

Equipment and chemicals: 2 test tubes, plug with the hole, glass tube , wood shavings or sawdust , lime water , burner , laboratory stand , $CuSO_4$ * 0.5 H_2O , swab

Procedure:

- *Pour sawdust into about two thirds the height of the test tube and the close it using stopper with a glass tube.*
- *According to the scheme assemble the apparatus and carefully pour lime water into a second test tube.*
- *Heat the mixture of solids and observe changes in both test tubes.*
- *Drops of liquid have formed on the walls of the tube with shavings. Gently wipe off them with a cotton swab, which is covered with anhydrous $CuSO_4$.*
- *Write down observed changes, and explain them, if it is possible take the*

Worksheet	**Evidence of carbon in wood**
Chemicals:	
Chemical equipment:	
Observation: *1. Describe the appearance of the solid which will heat.* *2. Describe the changes in the second test tube with lime water. Which substances this reactions is able to demonstrate?* *3. Describe the appearance of anhydrous CuSO4 before reaction and after reaction with liquid.* *4. Which substance was proved by this reaction?*	
Conclusion: *This experiment is able to demonstrate the presence of certain elements in dry wood. What elements are these?*	

❖ Experiment 3: Evidence of carbon in organic materials

Equipment and chemicals: candle, sugar, flour, piece of plastic (cup), chemical pliers, porcelain shard (porcelain bowl), matches, 3 test tubes, burner, test tube holder

Procedure:

- Using the pliers grab the porcelain and insert it into the flame of candles.
- After removing the porcelain from the flame observe changes on its surface.
- Pour sugar, flour and a piece of plastic (only when the hood is available!) into individual test tubes.
- Hold gradually the test tubes into the holder and strongly heat in the flame of the burner.
- Observe changes in individual test tubes.

Worksheet	**Evidence of carbon in organic materials**
Chemicals:	
Chemical equipment:	
Observation: *1. What was the difference between porcelain before and after this experiment? For which element is this colour typical?* *2. Explain what has proved by this reaction?* *3. Describe appearance of substances in the test tubes before heating and after heating.* *4. Which element was proved by this change?*	
Conclusion: *This reaction is able to demonstrate the presence of one element in organic substances. Which element is it?*	

4) Decision making:

Students individually write down answers to the questions before starting the inquiry.

Answers to questions:

- **Briefly answer the questions that you are expressed at the beginning of your inquiry.**

1..... Answer:
2..... Answer:
3..... Answer:
4..... Answer:
5..... Answer:

(a) Is it possible to find the piece of coal with a visible leaf? Which natural process is responsible for the things on the picture number one?

Answer:

(b) What was the appearance of the saucepan from the short story „Yesterday...”? To what colour has the milk changed? What was the reason for this change?

Answer:

(c) Is it possible to consider described experiments as an evidence of the presence of carbon in organic materials?

Answer:

(d) Is it possible to consider described experiments as an evidence of the presence of carbon in organic materials?

Answer:

(e) How is possible to prove the presence of oxygen in organic substances? What simple compound containing oxygen can help to prove it?

Answer:

Conclusions and recommendations to the stories:

- **In the left column of the table write down your suggestions and recommendations that in your opinion belongs to these stories. Discuss with classmates and teachers about your opinions. Corrections and additions write down in the right column.**

Worksheet: 1 350 million years ago		
	My opinion:	**Correction and supplement after the discussion**
1.		
2.		
3.		
4.		
5		

Worksheet: Some 20 years ago in the coal region near the city of Ostrava		
	My opinion:	**Correction and supplement after the discussion**
1.		
2.		
3.		
4.		
5		

Worksheet: Yesterday in our kitchen		
	My opinion:	**Correction and supplement after the discussion**
1.		
2.		
3.		
4.		
5		

Based on own inquiry, the student the earliest fills himself/herself worksheets (tables) in the left part. Then during the discussion student conclusions are clarified and repaired.

5) Comments and recommendations:

Description of tasks

Students work in groups. First, students revise their knowledge of photosynthesis. This task can be entered as homework. Students compare their findings each other in groups, then create a simple presentation, poster. Under the guidance of teachers divide the substances involved in photosynthesis depending on the organic and inorganic. They understand basic features of elements and compounds occur in the organic substances. Brainstorming about the properties of these elements and their simple compounds under the guidance of a teacher (with his assistance) can help to devise a simple experiment for proof of elements in the organic compounds. Then, students work in the laboratory to perform the selected experiments and discuss findings.

Step 1: Photosynthesis

Students work in groups of three-to five-member groups. They discuss about the substances involved in photosynthesis - reactants and products. It is at the discretion of the teacher whether the students will have available the literature or computer connected to the Internet. According to the school equipment, students' abilities and teachers choices each group creates outputs (posters, computer presentations). Work can be entered as homework.

The output includes:

- Writing of the equation.
- Naming of substances.
- Subdivision of the organic and inorganic substances.
- An overview of the elements that make up the individual molecules and their basic physical and chemical properties.

Step 2: Students present their previous work before the whole class.

Step 3: Brainstorming

Students still work in the same groups. Under the guidance of teacher students compile reports about all properties of the elements which they have in their outputs. They study features of simple compounds CO_2 and H_2O. Students suggest a simple reaction for proving the presence of both elements and compounds.

Step 4 – Evidence

Students perform designed simple experiments which identify the presence of selected elements in common organic materials - wood, paraffin, etc.

Precautions!

Students keep to laboratory rules and all safety precautions described in the descriptions of experiments.

Recommendations:

❖ **EXPERIMENT 1**

- Sometimes students do not leave the candle to burn long enough and lime water is not cloudy.
- To prepare fresh lime water.

❖ **EXPERIMENT 2**

- Perform exactly assembly of the apparatus.
- Amount of sawdust in test tube is only about two thirds the height of the tube.
- To explain to the students that experiment ends when the lime water turbid and on the walls of the tube timber appears sufficiently large drops of water.
- $CuSO_4$ * 5 H_2O must be well dried.

❖ **EXPERIMENT 3**

- Explain that the experiment ends at the first observable change in the test tube, otherwise it releases an unpleasant odour.
- Experiment with plast is necessary to carry out only in the hood.

Step 5 – Evaluation of experiments, interpretation of observations

- When drawing up protocols should be noted rules for elaboration.
- It is necessary to be "guide" for students during their independent work - to help and to correct them.
- It is necessary to discuss and then to correct students´ conclusions. Sometimes it is necessary to explain content again.
- It is necessary to explain what is more and less important. Sometimes students have a tendency to pay attention to secondary things, because they are not able to recognize the importance of individual information.

Questions

Questions designed as the final summary lead students to a "scientific conclusions" and hypotheses about what they are able to discuss on an adequate level.

Based on the experiments students express their conclusion about evidence of the elements using selected experiments. The students carry out self-evaluation.

The following table presented possible answers to questions which are intended to verify the inquiry skills of students and whether they understand the nature of performed experiments.

1.	*Is it possible to find the piece of coal with a visible leaf? Which natural process is responsible for the things on the picture number one?*	*Yes, it is the result of natural process – carbonisation.*
2.	*What was the appearance of the saucepan from the short story „Yesterday...”? To what colour has the milk changed? What was the reason for this change?*	*Saucepan was change into brown to black. This change was caused scorching of milk. Carbon in the milk was reduced to its elemental form.*
3.	*Is it possible to consider described experiments as an evidence of the presence of carbon in organic materials?*	*Yes, it is possible; carbon had to be a part of compounds from which it has been separated.*
4.	*Is it possible to consider described experiments as an evidence of the presence of carbon in organic materials?*	*Yes, it is possible; carbon had to be a part of compounds from which it has been separated.*
5.	*How is possible to prove the presence of oxygen in organic substances? What simple compound containing oxygen can help to prove it?*	*The appearance of the water is an evidence of presence of oxygen.*

Final summary

- Which elements were able to demonstrate in the presented materials?
- Which of confirmed elements is probably the most important?
- Which branch of chemistry examines substance such as wood flour, wax, plastic, but other materials in which carbon is the most important element?

Possible areas for discussion:

- Importance of photosynthesis for producing organic compounds.
- General characteristics of organic compounds.
- The differences between organic and inorganic substances, etc.

7.4.4. Interesting practice example in project-based learning

Submitted by:	Jinghui Yang
Project partner university:	Shanghai Polytechnic University (China)

PART A. General information about the interesting practice	
Title of the interesting practice	**Design and Realization of a Student Database**
implemented in the course / programme	Hands-on activity
Type of Course	Face-to-face
University	Shanghai Polytechnic University
Pedagogical Team involved in it	Yang Jinhui, Ji Min, Chen Zhumin, Li Yan, Du Wanhe

PART B. Target group	
Target group	**Age group of students:** ☒ 18–24 □ 25–34 □ 35–44 □ 45–54 □ 55–64 □ 65+ **Level of Education:** □ ISCED 5 (Short cycle tertiary education) ☒ ISCED 6 (Bachelor degree) □ ISCED 7 (Master degree) □ ISCED 8 (Doctoral degree) □ Other (Please, specify):

PART C. KEY SKILLS REQUIRED FOR PARTICIPATION / ENTRY IN THE COURSE	
TRANSVERSAL SKILLS AND COMPETENCES	☒ COMMUNICATION IN THE MOTHER TONGUE ☐ COMMUNICATION IN FOREIGN LANGUAGES ☒ MATHEMATICAL COMPETENCE AND COMPETENCES IN SCIENCE AND TECHNOLOGY ☒ DIGITAL COMPETENCES ☒ LEARNING TO LEARN ☐ SOCIAL AND CIVIC COMPETENCES ☐ ENTREPRENEURIAL COMPETENCES ☐ CULTURAL AWARENESS AND INTERCULTURAL COMMUNICATION COMPETENCE
SUBJECT SPECIFIC COMPETENCES AND SKILLS	☒ ABILITIES TO IDENTIFY AND SOLVE PROBLEMS ☒ COOPERATIVE SPIRIT AND TEAM WORK ABILITY

PART D. SPECIFIC INFORMATION OF THE INTERESTING PRACTICE	
TOPIC OF THE MODULE	**DESIGN AND REALIZATION OF A STUDENT DATABASE**
DURATION:	135 MIN
AIMS OF THE MODULE	• To learn about the basic theory of relational database. • To develop students' skills to create, operate, and maintain a database. • To familiarize students with at least one DBMS.
OBJECTIVES (OUTCOMES)	**BY THE END OF THE MODULE STUDENTS WILL BE ABLE TO:** • design the database according to the requirements; • use SQL Server 2008 to create database; • manipulate data by using SQL language.
KEY SKILLS	• logical thinking mode; • teamwork capability; • identify and solve problems; • practical application ability.
LEARNER-CENTRED METHODS ADDRESSED:	Problem based learning ❑ Discovery learning ❑ Task based learning ❑ Small group, self-instructional and project-based learning ❑ Project-based learning ☒ Experiential and reflective learning ❑ Peer evaluation and learning contracts ❑

MATERIALS / AIDS / EQUIPMENT	• Multimedia assistance; • Hand-out materials; • Computer installed with SQL Server2008.
CROSS- CURRICULAR LINKS	Programming skills and management information system courses.
PREPARATION	Prepare the project requirements and deliverables on paper, group the students before course, design the class procedure, and take some precautions.
POSSIBLE PROBLEMS AND SOLUTIONS	1) Need guidance of the teacher to specify some detailed and confusing issues; 2) The team conflict caused by the personal characteristics or different opinions.

INTERESTING PRACTICE MODULE IMPLEMENTATION PLAN

No	Stage / Time	Procedure	Purpose(s)	Interaction Patterns
1	Warm-up	Introduce the project requirements.	To arouse the interests.	T – Ss
2	Lead-in	Review the knowledge related to the project.	To get ready to the project.	T – Ss
3	Brainstorming	Brainstorm the project.	To make students express their opinions in the group.	S – Ss
4	Group-work	Design and realize the student database.	To use theory knowledge in practice.	S – Ss
5	Interaction	Presentation by group.	To make students learn from each other, correct, evaluate.	S – Ss
6	Follow-up	After class tasks.	To Review and self-reflection.	S

DESCRIPTION OF THE MODULE STEPS

Three-Point Pedagogical Method puts more focus on the three aspects:
First, the pin-point & refined lectures;
Second, more practical experience among the learners in the class;
Third, more fruitful interactions between learners and teachers.

Accordingly, teachers are required to think ,read &prepare more before the class , and try to take the true needs of the learners which are always varying and keeping the pace with the time into the consideration, then , in the class , all the procedures are set to meet the need and complete the teaching goals of the unit.

Teachers, therefore, should have a comprehensive master and general opinion in the class , and in the beginning stage of the lesson, all the materials , printed or APPs on the mobile phones , are given to the groups(usually 3–7 learners) formed according to the understanding of the teachers towards their learning capabilities. Those materials can give assistance for the learners to clarify the goals of the unit. During the group-work, teachers are the observers who assess the efficiency and validity among each group, subsequently , the teachers will modify the pace of the unit. Before the class ends, the task is assigned to each group , which is designed to reflect the contents and think more by oneself and among the peers.

Design and realization of a student database
Goals:

1. Design the database according to the requirements.
2. Use SQL Server 2008 to create database.
3. Manipulate data by using SQL language.
4. Teamwork.
5. Self-evaluation and group-evaluation in the learning process.

Procedure:

1. Review theory knowledge.
2. Brainstorm.
3. Teamwork-design and realize the database.
4. Presentation.
5. Self-reflection.

Teaching method
direct＋brainstorm＋group work

Teaching assistance

multimedia＋computers

Project requirements:

1. Each group designs a relational database for student information management system.
2. The project includes: requirements analysis, conceptual design, logic design, and database implementation.
3. Requirements analysis includes functional design description, data dictionary design, data flow chart design, organization chart.
4. Conceptual design includes local and global ER diagram.
5. Logical design contains relational schema conversion based on ER diagram.
6. Realize the designed database in SQL Server 2008 and put some test data.
7. Write 15 SQL queries to manipulate data.
8. Submit a report which describes the whole design and realization phrases.
9. Make a presentation by group before the class.

Discussion after project:

1. What are the most difficult and the easiest parts in the project?
2. What is your role in the team? What's your contribution?
3. In some cases, is data redundancy necessary?
4. Which part in the report can be improved?

Supplement reading materials:

SQL Server:

Microsoft SQL Server is a relational database management system, or RDBMS, that supports a wide variety of transaction processing, business intelligence and analytics applications in corporate IT environments. It's one of the three market-leading database technologies, along with Oracle Database and IBM's DB2.

The original SQL Server code was developed in the 1980s by the former Sybase Inc., which is now owned by SAP. Sybase initially built the software to run on Unix systems and minicomputer platforms. It, Microsoft and Ashton-Tate Corp., then the leading vendor of PC databases, teamed up to produce the first version of what became Microsoft SQL Server, designed for the OS/2 operating system and released in 1989.

Ashton-Tate stepped away after that, but Microsoft and Sybase continued their partnership until 1994, when Microsoft took over all development and marketing of SQL Server for its own operating systems. The year before, with the Sybase relationship starting to unravel, Microsoft had also made the software available on the newly released Windows NT after modifying the 16-bit OS/2 code base to create a 32-bit implementation with added features; it focused on the Windows code going forward. In

1996, Sybase renamed its version Adaptive Server Enterprise, leaving the SQL Server name to Microsoft.

Like other RDBMS technologies, SQL Server is primarily built around a row-based table structure that connects related data elements in different tables to one another, avoiding the need to redundantly store data in multiple places within a database. The relational model also provides referential integrity and other integrity constraints to maintain data accuracy; those checks are part of a broader adherence to the principles of atomicity, consistency, isolation and durability -- collectively known as the ACID properties and designed to guarantee that database transactions are processed reliably.
The core component of Microsoft SQL Server is the SQL Server Database Engine, which controls data storage, processing and security. It includes a relational engine that processes commands and queries, and a storage engine that manages database files, tables, pages, indexes, data buffers and transactions. Stored procedures, triggers, views and other database objects are also created and executed by the Database Engine.
Sitting beneath the Database Engine is the SQL Server Operating System, or SQLOS; it handles lower-level functions, such as memory and I/O management, job scheduling and locking of data to avoid conflicting updates. A network interface layer sits above the Database Engine and uses Microsoft's Tabular Data Stream protocol to facilitate request and response interactions with database servers. And at the user level, SQL Server DBAs and developers write T-SQL statements to build and modify database structures, manipulate data, implement security protections and back up databases, among other tasks.

Microsoft also bundles a variety of data management, business intelligence (BI) and analytics tools with SQL Server. In addition to the R Services and now Machine Learning Services technology that first appeared in SQL Server 2016, the data analysis offerings include SQL Server Analysis Services, an analytical engine that processes data for use in BI and data visualization applications, and SQL Server Reporting Services, which supports the creation and delivery of BI reports.

On the data management side, Microsoft SQL Server includes SQL Server Integration Services, SQL Server Data Quality Services and SQL Server Master Data Services. Also bundled with the DBMS are two sets of tools for DBAs and developers: SQL Server Data Tools, for use in developing databases, and SQL Server Management Studio, for use in deploying, monitoring and managing databases.

Microsoft offers SQL Server in four primary editions that provide different levels of the bundled services. Two are available free of charge: a full-featured Developer edition for use in database development and testing, and an Express edition that can be used to run small databases with up to 10 GB of disk storage capacity. For larger applications,

Microsoft sells an Enterprise edition that includes all of SQL Server's features, as well as a Standard one with a partial feature set and limits on the number of processor cores and memory sizes that users can configure in their database servers.

However, when SQL Server 2016 Service Pack 1 (SP1) was released in late 2016, Microsoft made some of the features previously limited to the Enterprise edition available as part of the Standard and Express ones. That included In-Memory OLTP, PolyBase, columnstore indexes, and partitioning, data compression and change data capture capabilities for data warehouses, as well as several security features. In addition, the company implemented a consistent programming model across the different editions with SQL Server 2016 SP1, making it easier to scale up applications from one edition to another.

SQL:

SQL is the abbreviation of Structured Query Language and it is for relational databases, as the title indicates this is only for fresher who has just started the carrier or who is waiting to open up the carrier in the application programming side. But that does not mean this article is a tutorial for a fresher who does not know anything about SQL. This article is meant for who already have a little knowledge in SQL and want to improve it.

First, SQL is the premier tool for viewing information from a relational database. It doesn't just give you a data dump. SQL gives you sophisticated tools to summarize, consolidate, and calculate from the data. Using table relationships, data can be combined from multiple tables in a number of ways. With a properly designed database, SQL can answer practically any question about the data. Second, SQL provides commands to manipulate the data in a relational database. Records can be updated and added to or deleted from a table. Here is SQL as a database language really shines. Procedural programming languages, such as BASIC, might require several lines of code to update a record in a database table. In addition, procedural programming languages would have to use some sort of looping structure to repeat this process on every record. SQL operates on an entire set of records all at the same time. SQL is like haiku for programmers; often a dozen words or fewer can delete or change thousands of records. Finally, SQL is a complete data definition language (DDL). The database itself can be created along with all tables, fields, primary keys, and relationships. Add to that the record insert commands, and you can have a complete database and all its data expressed in programming code. This greatly enhances a database programmer's ability to work remotely or to port data enhancements among various installations. The prerequisite for learning SQL is knowledge in Discrete Mathematics (Set Theory, Relations and Functions). Although it is not necessary to learn all the theorems and proof for the theorems in the Discrete Mathematics, you should have learned the basic concepts of the Sets, Relations and Functions. This will help you to learn SQL queries and

fundamentals easily. If you want to explore a RDBMS more deeply you should learn Graph Theory too. Although I tried to avoid SQL Server specific topics in this article, I am sure that some topics are pure to SQL server such as SQL Enterprise manager

7.4.5. Interesting practice example in learning contracts

Submitted by:	Dana Zamecnikova, Ivana Marova
Project partner university:	University of Masaryk (the Czech Republic)

PART A. GENERAL INFORMATION ABOUT THE INTERESTING PRACTICE	
TITLE OF THE INTERESTING PRACTICE	**LEARNING AGREEMENTS**
IMPLEMENTED IN THE COURSE	Disability Studies
TYPE OF COURSE	Face-to-face / Distance learning
UNIVERSITY	University of Masaryk
PEDAGOGICAL TEAM INVOLVED IN IT	Ivana Marova, Ph.D. Helena Vadurova, Ph.D.

PART B. TARGET GROUP	
TARGET GROUP	**AGE GROUP OF STUDENTS:** ☒ 18–24 ☒ 25–34 □ 35–44 □ 45–54 □ 55–64 □ 65+ **LEVEL OF EDUCATION:** □ ISCED 5 (Short cycle tertiary education) ☒ ISCED 6 (Bachelor degree) ☒ ISCED 7 (Master degree) □ ISCED 8 (Doctoral degree) □ Other (Please, specify):

PART C. KEY SKILLS REQUIRED FOR PARTICIPATION / ENTRY IN THE COURSE	
TRANSVERSAL SKILLS AND COMPETENCES	☒ COMMUNICATION IN THE MOTHER TONGUE ☒ COMMUNICATION IN FOREIGN LANGUAGES ☐ MATHEMATICAL COMPETENCE AND COMPETENCES IN SCIENCE AND TECHNOLOGY ☐ DIGITAL COMPETENCES ☐ LEARNING TO LEARN ☒ SOCIAL AND CIVIC COMPETENCES ☐ ENTREPRENEURIAL COMPETENCES ☒ CULTURAL AWARENESS AND INTERCULTURAL COMMUNICATION COMPETENCE

PART D. SPECIFIC INFORMATION OF THE INTERESTING PRACTICE	
TOPIC OF THE MODULE	**INTRODUCTION TO DISABILITY STUDIES**
DURATION:	180 MIN
AIMS OF THE MODULE	Introduction to Disability Studies is a course for bachelor and follow-up master students providing introduction into the theory of Disability Studies and the development of the Society approach to disabled person.
	The overall aim of the course is to increase students´ knowledge in the field of the Disability Studies; increase students communication skills in mother tongue and foreign language and ability in problem-solving. Furthermore, to allow students reflect on their own and others´ opinions and support the development of their social skills such as respect, tolerance and empathy. The aim of the Unit is to familiarized students with fundamentals of the Disability Studies and allow them to experience feelings which might be individual with disability has. Measured requirements of this unit defined in LA are own definition of the disability/ group definition of disability; analysis of given articles; group mind map on the disability.

OBJECTIVES (OUTCOMES)	**BY THE END OF THE MODULE STUDENTS WILL BE ABLE TO:** • specify the fundamentals of the Disability Studies and selected terms connected with social inclusion; • get an insight on selected limitations caused by simulated disability; • understand general aspects of Disability and Society Approach towards it; • reflect their own opinion on the topic.
KEY SKILLS	• Communication skills; • Skills connected with decision making; • Social skills; • Professional teaching/learning skills.
LEARNER-CENTRED METHODS ADDRESSED:	Problem based learning ❑ Discovery learning ❑ Task based learning ❑ Small group, self-instructional and project-based learning ❑ Project-based learning ❑ Experiential and reflective learning ❑ Peer evaluation and learning contracts ☒
MATERIALS / AIDS / EQUIPMENT	• Readers consisted of theoretical background for the topic. • Flash cards consisted of the description of selected difficulties. • Exit cards containing selected term to be define. • Poster papers, colour pins.
CROSS- CURRICULAR LINKS	Social Sciences.
PREPARATION	• Primarily, the objectives and measurable indicators for the Learning Agreement need to be set. • Evaluation rules needs to be set. For the lesson: • Send a link of assigned reading for lesson to students. • Flash cards consisted of examples of difficulties need to be prepared. • Selected research articles for independent student work.

POSSIBLE PROBLEMS AND SOLUTIONS	Concerns about the Learning Agreement (LA) requirements: • LA is based on the collaboration and agreement in between teacher and the students. Given tasks are provided with comprehensive resources.

INTERESTING PRACTICE MODULE IMPLEMENTATION PLAN

No	Stage / Time	Procedure	Purpose(s)	Interaction Patterns
0	**Prior the class**	Development of the LA.	Prior to the course, students are given the course requirements and the evaluation conditions. Students are asked to reflect on the LA and get a feedback if needed.	Student with teacher
1	**Warm-up** / 10 min	Disability – what does it mean?	Encounter students with the topic of whole lesson and elaborate on own opinion. Students are asked to create their own definition and reflect it in pair.	Starts as S, continue as S – S
2	**Classroom discussion** / 15 min	Definition of the Disability.	Students are asked to present/defend their definition In the whole group.	T-Ss (whole class work)
3	**Simulation** / 5 min	Simulation of the Disability .	Students are divided into group of 5 in which each pick one flash card consisted of the description of selected difficulties	S (Individual Work)

			which needs to be pretend.	
4	**Problem solving** / 20 min	Problem solving connected with pretended disability.	Students are afterwards knit with their hands and try to disassemble their hands with respect to their disability so that a circle is created. Students reflects their feeling then.	S – ss (group activity)
5	**Theoretical Part** / 20 min	Disability in studies.	In pairs students are given readers concerning theoretical background of the Disability concept.	S – S (pair work)
6	**Comparison of the theory** / 20 min	Disability in international studies.	Students are asked to compare read article with the second one, assigned as a homework for the lesson.	S – S (pair work)
7	**Practical Part** / 30 min	Disability – Mind Map.	Development of the Mind Map with the central topic Disability and its presentation. Three pairs are connected into group and develop the Mind Map based on their analysis.	S – ss (group activity)
8	**Discussion** / 30 min	Presentation of the Main-Map in groups.	Presentation of the Mind map by the group for the whole-class.	T – Ss (whole class work)

9	**Evaluation** 30 min	Students carry out self-evaluation and peer-evaluation.	To evaluate own work and classmates work.	T – Ss (whole class work) S – S (pair work)
10	**Closing Activity /** 15 min	Exit Cards.	Students pick a card with selected term which they define.	T – Ss (whole class work

Materials used in the module

LEARNING CONTRACT

Student: Alex Sand **Guarantor: Mila Street**
Area: Special Education **Supervisor: Elisa Moor**
Focus: Disability Studies **Timeline: Spring 2015**

Course description

The aim of the course Introduction to Disability Studies is to look at their attitudes towards people with disabilities and disadvantages and to place them in a wider historical and social context. Who is actually a person with a disability / disadvantage? How do stereotypes and prejudices apply to our thinking? What influences the involvement of people with disabilities in society? What are the attitudes of majority society and what shapes them?

Learning outcomes

After completing the course the student will be able to;

- Define and, on specific examples, describe basic concepts related to disability as category, normality, diversity, identity and stereotypes;
- Reflect on own attitude towards diversity in civic and professional life;
- Characterize the development of the attitude of the society towards people with disabilities, including contemporary concepts;
- Define how current national and international legislation shapes society's attitude towards people with disabilities;
- Reflect the impact of the media image of people with disabilities on their social inclusion and the attitude of the majority society.

Syllaby

The course offers basic terminological anchorages (norm and normality, stereotypes, diversity), and a preview of changes in the attitude of society to disability and related paradigmatic models (social and individual model). It focuses on the history of the development of the relationship of

society to people with disabilities and international conventions and standards related to the promotion of the rights of people with disabilities /disadvantages. It reflects the development of the identity of individual with disabilities and the possibilities of social inclusion in the context of the current political and social situation. Last but not least, the course will provide insight into the development of the media image of individuals with disabilities/disadvantages, which strongly shapes the attitudes of society.

Schedule

Course Description	Assignments
Lesson 1 *1st February (180 minutes)* • *Disability Studies Introduction.* • *Stereotypes – Pity, Abelism, Normality vs. Abnormality.* • *International perspectiv.* ***Lesson 2*** *15th March (120 minutes)* • *Disability Models.* • *Social and Medical Model of Disability.* ***Lesson 3*** *3rd April (120 minutes)* • *Disability history and Policy.* • *International conventions and legislation.*	*First reading prior to the lesson 1.* *Second reading prior to the lesson 2.* *Third reading prior to the lesson 4.*

Lesson 4 *24th April (120 min)* • *Attitudes towards disability.* • *Society Approach.* ***Lesson 5*** *5th June : (180 min)* • *Media presentation of Disability .* • *Storytelling and Media.* • *Art Brut.*	*Fourth reading prior to the lesson 5.*

Course Assignments

Below the course assignments are specified:

	Topic	**Format**
Lesson 1	Titchkosky, T. (2002). *Disability Studies: The Old and the New*.	Article review
Lesson 2	Rees, K. (2017). *Models of disability and the categorisation of children with severe and profound learning difficulties: Informing educational approaches based on an understanding of individual needs.*	Article Review
Lesson 4	Wolfe, K. (1996). *Ordinary people - Why the Disabled aren´t so different.*	Article Review
Lesson 5	Cunha, M. J. & Pinto, P. (2014). *Media presentation of Disability: A longitudinal Study in print media.*	Article Review

Course evaluation

The overall grade will be based on following:

	Requirements	Percentage
1.	Articles reviews	40%
2.	Attendance	40%
3.	Active Participation during lessons	20%

Learning Contract

STUDENT'S NAME
TUTOR'S NAME

I confirm that the document which follows provides an appropriate learning contract for the course.

Signed …… (STUDENT)

Date……..

Signed …… (TUTOR)

Date……

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9. Glossary of Terms

Term	Definition	Source
Active learning	A classroom approach which acknowledges that learners are active in the learning process by building knowledge and understanding in response to learning opportunities provided by their teacher.	http://www.cambridgeinternational.org/images/271174-active-learning.pdf
Collaborative learning	A group of individuals working together for a common result such as project teams, problem based learning, group case analysis, simulations or games, peer mentoring, collaborative scientific research, and collaborative discussion groups.	https://www.igi-global.com/chapter/creating-collaboration-in-global-online-learning/111826
Constructivism	A broad orientation to learning in which individuals understand their experiences by constructing their own meaning rather than relying on authority or searching for an objective truth that exists separately and independently from the experience; learners are active rather than passive—learning occurs through discussion, collaboration, experiential activities, and engagement with ideas and events.	https://www.igi-global.com/chapter/creating-collaboration-in-global-online-learning/111826
Digital communication	Also *Communication using digital technology*. Various modes of communication exist, e.g. synchronous communication (real time communication, e.g. using skype or video chat or Bluetooth) and asynchronous ones (not concurrent communication, e.g. email, forum to send a message, SMS) using for example, one to one, one to many, or many to many modes.	https://ec.europa.eu/jrc/en/digcomp/digital-competence-framework
Digital content	any type of content that exists in the form of digital data that are encoded in a machine-readable format, and can be created, viewed, distributed, modified and stored using computers and digital technologies, e.g. the internet. The content can be either free or pay content. Examples of digital content include: web pages and websites, social media, data and databases, digital audio, such as mp3s, and e-books, digital imagery, digital video, video games, computer programmes and software.	https://ec.europa.eu/jrc/en/digcomp/digital-competence-framework

Discovery learning	A method of inquiry-based instruction, discovery learning believes that it is best for learners to discover facts and relationships for themselves.	https://www.learning-theories.com/discovery-learning-bruner.html
Learner-centred approach	An approach to teaching that focuses on the learners and their development rather than on the transmission of content; it addresses the balance of power in teaching and learning, moves toward learners actively constructing their own knowledge, and puts the responsibility for learning on the learners.	https://www.igi-global.com/chapter/creating-collaboration-in-global-online-learning/111826
Problem solving	An individual's capacity to engage in cognitive processing to understand and resolve problem situations where a method of solution is not immediately obvious. It includes the willingness to engage with such situations in order to achieve one's potential as a constructive and reflective citizen.	(OECD, 2014)
Project-based learning	A teaching method in which students gain knowledge and skills by working for an extended period of time to investigate and respond to an authentic, engaging and complex question, problem, or challenge.	https://www.bie.org/about/what_pbl
Student-centred learning	The process of qualitative transformation for students and other learners in a learning environment, aimed at enhancing their autonomy and critical ability through an outcome-based approach.	Bologna Follow-Up Group, 2014, p. 6
Task-based learning	The completion of a central task and the language studied is determined by what happens as the students complete it. The lesson follows certain stages – Pre-task, Task (planning->report->analysis), Practice.	https://www.teachingenglish.org.uk/article/a-task-based-approach

Learner-centred Teaching Manual
A Training Pack for University Teaching Staff

Edited by: Tsvetelina Harakchiyska

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This publication presents the outcomes of **the Sustainable Learner-Centred Teaching – Advanced Recourse for Georgia and China** (*STAR*) **Project** which brought together academic staff from several EU member states (the *Czech Republic, Bulgaria, Denmark* and *Portugal*) and from two Partner Countries – *Georgia* and *the Republic of China* who focused on **active learning and teaching** and its implementation in *higher education*.

The primary target group of the materials included in this publication is academic staff at higher educational institutions willing **to implement a more learner-centred approach** in their classrooms and thus **facilitate the development of young people** who possess the *necessary knowledge, skills and competences* to function successfully on the labour market and in the present-day heterogeneous societies.

The final product is the Learner-Centred Teaching Manual which contains:

- *a theoretical part* on learner-centred teaching
- *a set of three training modules* which combine theoretical insights on active learning, hands-on experience with selected learner-centred teaching approaches and assessment procedures in a learner-centred classroom
- *a collection of interesting practices* illustrating the use of a selected set of learner-centred approaches in the educational contexts of the *STAR* project consortium institutions

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