

# Reflect Lab

## Supporting Lecturers in Applying Inquiry-Based Learning



### Intellectual Output 2: Manual for Lectures

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This project has been funded with support from the European Commission. This communication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein. Submission Number: 2016-1-DE01-KA203-022891

*Dear Reflect Lab Participant, Dear Lecturer!*

*This manual will support you to familiarise yourself with the ReflectLab methodology and guide your students through the experience of inquiry-based learning.*

*The Reflect Lab method aims at supporting your students to develop the skills to investigate topics that are discussed in a confrontational way. This manual will help you to create a learning environment that empowers your students to undertake this journey, which will broaden their investigative and analytical skills. An inquiry-based learning approach will always allow new questions to arise, and as such, this manual cannot be a complete guide or answer all your questions. It will, however, give you advice on how to proceed and where to turn when you have questions about your next steps – or alternatively, where you should begin.*

*On the subsequent pages you will find information on the Reflect Lab method and its specific demands on teachers. Please be aware that this short manual can only give you an introduction into the approach, and for further information, please consult our website at <https://www.reflect-lab.eu/>*

*We wish you and your students many interesting and engaging ResearchLabs and we would be interested to hear or read about your experience! We wish you all the best with this teaching method and hope that this manual will be of use to you.*

*The Reflect Lab team*

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## 1. Introduction

The needs-analysis IO1 which precedes this document has shown that people are interested in inquiry-based learning (IBL)<sup>1</sup> and problem-based learning (PBL), even though they do not know much about the two approaches on the one hand, and feel restricted, as a result of time required and the daunting range of possibilities on the other. During the inquiries realized in the course of the needs-analysis, the interviewees mainly mentioned reasons like “We are afraid to fail and lose time that we could better use for working on content”. Or: “We do not have time for projects like these because our students should acquire other competences in thematically different courses.” Lecturers also mentioned that they did not have the infrastructure for realizing these projects. Moreover, it has to be considered that a change of methods entails a transformation of known roles and responsibilities<sup>2</sup>. Introducing new methods therefore implicates that a new culture of learning and teaching has to be developed.

This manual aims to provide a guideline for interested lecturers on how to implement IBL and PBL. It also tries to solve the above-mentioned problems, as it aims to empower lecturers in realizing projects with the approaches of PBL and IBL. The need for such approaches is very high. We therefore collated the knowledge and experience acquired in PBL and IBL teaching, with the aim to spread this knowledge further.

A good example of IBL and PBL is the Politik-Labor<sup>3</sup> at the University of Hannover. It started at the chair of Professor Dr Dirk Lange in Oldenburg and then moved to Hannover. The Politik-Labor offers schools the possibility to work on projects outside their usual academic environment. When undertaking a project in the Politik-Labor, students and their teachers can use the university's infrastructure. This provides them with access to current research in social sciences and humanities as well as to university staff, in particular to lecturers. The projects are divided into three different parts: the first part takes place for a whole day at the university, the second part consists of the preparation and discussion of the results at school. In the final part, the participants present the results of their enquiries. The overall aim is to

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<sup>1</sup> The needs-analysis explains both terms and offers further information on the approaches:

[https://www.reflect-lab.eu/fileadmin/reflect-lab/pdf/IO1\\_english\\_full.pdf](https://www.reflect-lab.eu/fileadmin/reflect-lab/pdf/IO1_english_full.pdf)

<sup>2</sup> McREL 1992: “Eight Barriers to Changing Traditional Behaviour”

<sup>3</sup> Lange, Dirk 2012: Das Politik-Labor: forschendes Lernen in der Politischen Bildung. Baltmannsweiler: Schneider Verlag Hohengehren.

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introduce methods of research-based learning to high-school students. The first task for students is to decide upon a problem they would like to investigate. As soon as they identify one, they discuss the arising questions with their lecturers at the university, as well as with their teachers. After the teachers have approved the question and discussed the problems that can occur in the process, the participants are free to use the university infrastructure for a second appointment. They need to have access to printers, libraries and the expertise of professors as well as of other students. A Politik Labor takes place as an extracurricular activity and therefore no grades are given. This allows students to feel safe to make mistakes and to give honest feedback. Students tend to enjoy such a working atmosphere and consider extremely motivating and learner-friendly.

This manual for lecturers mainly deals with the introduction of IBL and PBL within the university and can be implemented independently from the specific subject. It therefore addresses lecturers and university teaching staff from all backgrounds. However, this is not a comprehensive manual in which all the different steps are described in detail. It does however deal with the crucial issues gathered through the experience of the lecturers participating in this ERASMUS+ project, who have applied the methods of IBL and PBL. The manual summarises our answers to frequently asked questions as well as other issues crucial for the implementation of the IBL and PBL methods. Overall, this manual aims to contribute to the professional development of lecturers, as it understands teaching as a constant process of learning.

This manual will support you in creating a stimulating learning environment and how to make it as pleasant and as welcoming as possible. It will then elaborate on the tension between the necessary regulations of the learning process versus the autonomy of the learners. The manual proceeds with suggestions for lecturers to self-reflect, as lecturers also need to be permanent learners. In the next step, we bring together the different aspects of the implementation of the methods along with the didactic theory with regard to IBL and PBL. Finally, but importantly, the difficult issue of grading an inquiry-based learning process will be analysed.

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## 2. How to create a stimulating learning environment

Several aspects have to be considered in order to make inquiry-based learning as effective as possible for the students. Some of the concerns include the infrastructure of the university as well as the motivation for the course. Both students and lecturers need to engage with the methodology and the topic in order to make the most out of it. In the following section, these issues will be elaborated further, and crucial aspects of reflective and motivating teaching will be discussed.

The infrastructure of the university is crucial for the quality of teaching. Unfortunately, university structures tend to be very inflexible, and lecturers might wish to improve several aspects of the infrastructure. Rooms, capacity, and size are all very urgent issues. Many seminar rooms are overcrowded, especially if the course offered attracts the interest of many students or if it takes place during a popular time slot. During the courses space is often restricted, and the number of desks and seats might be insufficient for the number of students who may need to take these classes. Moreover, the available equipment may not meet the demands of new teaching methods. It might be useful, or even necessary, to provide the classrooms with easily adjustable sets of chairs and tables that can be used for group work. Changing the arrangements of the chairs and tables to the needs of group work takes much time and effort, and this time could and should better be used for learning and research. Experience shows that 15 to 25 students are an ideal number for a classroom or learning group. All learners should have the opportunity and facility to be able to sit and write things down. Therefore, an equivalent number of chairs and tables must be available.

Furthermore, the use of the internet and other digital resources gain more importance. Within the classroom it is necessary to have access to a functioning computer, to the internet, as well as to the required software. It is important that students and lecturers have access to a functioning projector in order to show their presentations. It is advisable to use different learning and presentation methods such as web-applications and PowerPoint presentations to uphold students' motivation.

Lecturers can influence the motivation of students. Technically, the lecturer needs to maintain a good learning atmosphere by directly involving students and facilitating their learning. One

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way of doing this is to give students more space for elaborating on problems independently, as suggested in the method of IBL. At the beginning, the lecturer has to present the method in the right way, but later the method offers many opportunities for students to work on their own. Maintaining the focus, concentration and the wellbeing of the students does not only depend on the teaching method and the presentation style, but also on the size of the room and the number of students. A group size of 15 to 25 students is ideal as it allows everyone to participate in the discussions and to contribute equally to the working process.

The lecturer has a very specific role in IBL teaching; he or she needs to give students as much freedom as possible during their learning process, but at the same time reassure them of their guaranteed success in learning. In most cases, they do not participate actively in the research process but are responsible to determine the frame of reference for the students. Therefore, they have to be available for the students when questions, doubts or critique arise concerning the method or related issues. The lecturer has to communicate openly and remain available for an open exchange of dialogue with the students. Their role of supporting students, in order that they remain focussed also includes listening to the concerns and problems of the students and providing them with space to evolve their own interpretation on specific issues.

In the context of a formal university course, assessment of the students is often required; this aspect will be dealt with in chapter 6. While IBL does not require the assessment of students, the evaluation of the method itself is necessary. The evaluation must be conducted by both the lecturer and the students throughout the learning process and thereafter. For the evaluation, transparency is a very important issue. Students have to know how the lecturer takes decisions, i.e., what the significant factors are and what happens with proposals submitted by the students. The lecturer has to explain these issues when the evaluation actually takes place. When a lecturer handles the evaluation transparently, they will not have to explain many open issues afterwards. Overall, all participants must be included in the process of an evaluation and the ethics of evaluations should be observed. The lecturer bears the responsibility of the procedure.

Many proposals by students can be very useful for the further development of the course and IBL itself. It is therefore in the interest of the lecturer to discuss questions or suggestions as they arise. Additionally, changes to the structure of the seminar can be discussed with the

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students. The lecturer must recognise the relevance of the students' participation by valuing their proposals and their work within the seminar. This is also a method to uphold their motivation. When students present reasonable arguments for changing aspects of the seminar, the lecturer also benefits from it.

As the students' motivation is crucial to the learning atmosphere and their success, it is also useful to reflect with them on their will and motivation.

When starting with a ReflectLab experience, a lecturer has to take into consideration all these factors in order to provide a good atmosphere for both students and lecturers.

### 3. How to balance self-regulated learning and when to intervene in students' work

Classes tend to be divided: some students feel very capable and tend to gain attention, but in fact do not enrich the discussions significantly. Others are not aware of their capacities or do not feel motivated to antagonise the notorious speakers, and they keep silent. It is the task of the lecturer to balance such situations in order to create a good learning environment. They have to actively include students who are quieter and support shyer students, encouraging them to participate. Students with less knowledge and ability will need to be supported in order to achieve the learning goals.

During this process, it is very important that students are encouraged to work on their own in a way that makes them gain security, and experience success, during the process. For this purpose, it is important to create a working atmosphere that allows them to make errors and mistakes, as it is through mistakes and not only success that learning takes place. The lecturer should be a facilitator who is in reach, who supports the students as questions arise, and also motivates and praises the work of the students. Critique should be provided in a constructive way, and also students should be encouraged to develop this capacity.

At the beginning of the PBL and IBL experience, the role of the lecturer is crucial, and the literature on the topic expands significantly on this topic. According to our experience, there are many interesting methods a lecturer can apply to different groups of learners, but they

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always need to be adjusted to this specific group and their needs. Each course is different, and students have different needs and fulfil different prerequisites.

First of all, the lecturer has to consider the experience and the knowledge of the specific group of learners. The better a lecturer knows the students of a course, the better they can identify suitable topics and expect the possible results of their research. Similarly, the discussion of the topics, in addition to how to give constructive feedback, relies on the relationship a lecturer has with their students and the corresponding dynamics in a class. These dynamics depend on the students and their earlier relationships with each other, as well as the size of the classes. Whenever possible a lecturer should aim to know their students and to create a trusting working relationship.

In addition to acquiring basic knowledge about their students, lecturers need to prepare the texts and materials for the ReflectLab. A rigorous preparation of these materials is vital. These texts and materials have to be selected in accordance with the purpose of the class and the success criteria the lecturer wishes to achieve. Lecturers can stimulate the learning process by asking students to prepare answers to the materials in advance of a course session. This also helps to secure that students actually read the texts they are requested to study.

It is especially important that as a lecturer you are very clear and transparent about the aims of your class: what is a student supposed to learn and which capacities is he or she supposed to develop? How will you measure his or her success? – The clearer your answers to these questions are, the more secure your students will feel to work independently. The working agenda of your course has to correspond to the aims of your class, and similar as a research question guides research, the aims of your class have to guide you in the elaboration of your course, the topics you choose, and the selection of the texts students have to read. IBL and PBL demand you to be transparent to your students about the aims of the teaching and learning process.

Support your students to choose their research questions autonomously. This is not an easy task, as finding a question that is clear and precise and one that can be answered within a certain time is not easy. Students tend to develop questions which are too broad, reflect general prejudice more than analytic approaches, and which are not precise enough. A precise

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and clear research question guides a student like a compass through the research process. Obviously, students have a higher interest and motivation in researching questions of their own interest than predetermined queries. It is therefore important that you reserve enough time for discussing possible research questions with your students and encourage them to develop their personal research project independently. Students have to feel safe to come back to you when they consider it necessary to adapt or change their research question.

Make sure to create a working climate where students feel free to evaluate their own work and that of their colleagues in a cooperative and constructive form. Students should learn to both give and receive constructive criticism and be open towards the option to improve their research.

In order to create a positive learning environment, it is important to generate trust. Your students have to know and feel secure that they are allowed to make mistakes, as this is how learning takes place. They also have to know that when they need guidance, you are available for them and will support them, but that you will not intervene unnecessarily.

#### 4. Motivations and ways for lecturers to reflect on their work

A lecturer in the process of IBL or PBL tries to intervene as little as possible, and as much (or as little) as necessary. It is the lecturer's responsibility to help students with the development of their research questions and to support them in solving problems that they cannot resolve independently. Moreover, the lecturer is responsible for supporting students in reflecting about their work, for suggesting a variety of solutions or prevent them from making unethical choices or other significant mistakes. This implies the need for sincere and professional self-reflection.

The capacity to self-reflect has to be developed corresponding to your position, i.e., it depends on your role and differs whether you act as a student towards your professor, as a lecturer towards your students, or as a peer. It is important that you adopt these different positions into account and consider them in your interaction. The IBL and PBL logic requires you to support your students in acting as independently as possible. It is therefore necessary that you are very clear at the beginning of your course about its aims, and your expectations. During the

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research process, you should only intervene when necessary. You have to be very self-reflective when preparing the introduction to your course: do I give all the necessary information? How do I generate trust so that students feel free to reflect with me about their problems and the mistakes they make during the research process? How do I also show them the limits of their freedom? Am I transparent with my requests?

It can be useful for you to develop a short student guide for your seminar, which you can elaborate upon as you move through the process. It is important to specify what you expect from them before, during and after they undertake their research project. You might wish to elaborate this in a catalogue of activities or syllabus which allows your students to be aware of what they need to do, so that they do not lose track during their research activity. You should incorporate guidelines on ethics in research into such a guide.

Do make notes during the semester and ask yourself critically whether your own knowledge of the content you are teaching is sufficient and whether you as a lecturer are also open to criticism. Have your expectations been realistic? Have you prepared yourself well enough? Have you been able to transmit trust to your students and give them the necessary security as well as enough freedom to undertake their own research? What worked out well and what should you improve?

Be aware of the training programs your university offers for lecturers and make use of them – these programs often offer a variety of seminars about the planning of your courses, interaction with students, dealing with difficult situations in the classroom, and they can include the auditing of your performance during a course that you are teaching on. Such a program will help you reflect on your performance as a lecturer and support your ability to self-reflect positively. As a result, it will enable you to improve your teaching expertise – and the learning process of your students. If you do not have such programs at your university, discuss this with your colleagues and present your suggestions to your human resource department.

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## 5. How to interconnect these aspects and what else you have to consider

As a lecturer, you have to consider many different aspects in order to deliver a good seminar, and it is not easy to combine all of them.

Before you start with IBL or PBL, training in self-reflection might be very useful for you so that you are empowered to make the best out of this teaching experience for you and your students. During the Reflect Lab, communication is the key element of the teaching and learning experience. Your messages need to be clear and guide the students where necessary. Make sure that you plan enough time to discuss with each student their research questions and the doubts they may have about the research process, the search for adequate literature and the methods of research. Ensure you are able to provide your students with new perspectives. Depending on the specific academic tradition, students might not be used to a broad intellectual freedom or working independently outside the class, so they might wish to discuss the arising doubts and problems with you. When you do so, it is your duty to make sure the students stick to the key issues and questions, that they fulfil their research tasks within the frame of the course and understand how their tasks are embedded in a broader learning experience. It is your role to support students to stay focused and concentrate on what they need to finish their work successfully.

With any class you need to explain the syllabus or a written plan of what you would like them to undertake and at which stage of the course. This is also true for a Reflect Lab. You need to include the specific methods like IBL or PBL at each stage, and make sure you know which didactic concept you wish to apply and why. Be sure your didactical methods are appropriate for the content you wish to teach. Make sure you spend enough time explaining the didactical concepts to your students, i.e., plan enough time to explain the Reflect lab, the IBL and PBL as you realize them.

You should elaborate your written plan in a way that it helps you to structure your lessons and allows you to evaluate whether your students are on track. Make sure you are informed about the progress they make either through evaluating their group work or with face-to-face conversations. Inform your students about the structure of the course, as this helps them to stay focused. You might wish to structure the course plan according to milestones students

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have to reach, and you should help them to both develop their own milestones and to evaluate their success.

Provide time in your class for the evaluation of the Reflect Lab methodology. Both lecturers and students participating in the process need time and space to reflect about the work they have done and share their thoughts and opinions about the methods. This will also allow you to further develop your teaching skills with regard to IBL and PBL. Depending on the circumstances in your university, you might wish to share the experience you acquire with your colleagues and invite them to use the Reflect Lab methodology.

As with any teaching experience, and also for the IBL or PBL process, the most important ingredients are the lecturers and the students. The role of the lecturer is to act in a responsible and self-reflective way in a complex learning system, and to find the balance between intervening and allowing the students work by themselves. In order to assess the students appropriately in such a context, this aspect has to be considered and planned from the very beginning.

## 6. How to grade students

The assessment of the accomplishments of students is never an easy task, and this is even truer when students work independently and in a way that expects them to learn from their mistakes – which means that they have to feel free to make mistakes. Both IBL and PBL learning processes aim not at evaluating students, but at motivating them to work independently and experiment with different research methods. The motivation of students is often higher when they can experiment outside the curriculum and it is necessary that they can choose a topic of their interest. At the same time, the learning process at a university depends on a curriculum and on grading. These contradictory demands have to be balanced wisely.

The “Politik-Labor” project at the Leibniz University of Hannover is a good example of using IBL as a method, and it offers arguments why grading is not a good option for improving the learning success. On the contrary, the success of the project lies in the absence of the grading of pupils, who are told explicitly that they will not be graded. Many pupils provided feedback that they enjoyed a learning environment with little or low levels of anxiety. Especially those pupils who

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were known for not performing as well, showed high levels of progress during the project and even performed better than others.

Similarly, such motivation can be observed in the context of the university. Originally, universities were considered a place for a general education and lifelong learning. Students were expected to acquire a broad spectrum of knowledge from very different fields. This idea conflicts with the current system where students are expected to specialise early, pass standardised tests and be trained for a job. This also means that curricula and university teaching follow strict working plans, that these plans are credible within different university systems, and that the curricula follow the specifications of the Bologna rules, i.e., a Bachelor is conceptualised to take three years. Lecturers have to adapt to these circumstances, but they also do have the possibility to offer courses on a wide range of different topics. These courses can be very specific (e.g. exclusively on one theorist or method), or they can be broader, aiming to cover a wider field. While one topic might guide the course, groups within the class can work on very different aspects of the topic.

It is the lecturer who has to decide how they want to deal with a specific topic, and which teaching methods to apply. It is also the lecturer who decides whether he or she curtails the freedom of the students to choose between different aspects of a topic, or whether they encourage students to select research questions according to their own interests. Ideally, universities offer a variety of courses which serve the different needs and capacities students have to develop. Some courses might only require an assessment which indicates whether a student passed or failed; this makes the evaluation of the students' works easier.

It is well known that grading can be highly subjective. When lecturers need to grade students, they should be as transparent as possible about the criteria they are applying. These criteria have to be made clear at the beginning of the course.

The grading of a student should take several aspects into account:

- The process of elaborating a research question. Was the student active in searching for a question, was he or she willing to reflect about the concepts used in the question, about the necessary methods needed to answer it, and the time constraints of the course? Was the student open and willing to reflect about biases underlying the question, about ethical implications and about the feasibility?

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- The arguments for selecting a specific method. Is the student able to show both the benefits and the limitations of the methods chosen?
- The implementation of the method. Did the student invest time and effort to make themselves familiar with the chosen method(s)? Were the methods applied carefully? How about ethical questions and data security? Was the student willing to reflect on the methods used during the research process? Were necessary adjustments made? Are they well argued?
- The actual results. What is the output of the research effort? In fact, in a Reflect Lab experience, there are two different sorts of results: one refers to the content of the research, the other one to the personal improvement and increase of capacities of the student. While the result in terms of the content is important, the capacity of a student to reflect upon his or her own progress and limitations is equally important. In inquiry-based learning contexts, you might wish to switch the focus of the grading: a student can achieve a very positive grading because they present a very elaborated and professional portfolio demonstrating their research skills. But a student should also be able to achieve a very positive grading if their research did not turn out to be so successful, but they are able to reflect about the experience, elaborate on these insights, and demonstrate a significant increase of awareness of how to improve a similar piece of research in the future. Such an approach increases the freedom to make mistakes and the capacity of self-reflection; it therefore can be very motivating for students.

## 7. Summary

To sum up, the infrastructure of the university is important for the successful implementation of a Reflect Lab. Make sure you have access to the internet and libraries, as well as enough space and moveable chairs and tables. A projector as well as printers are useful. Make sure the environment is supportive and motivating.

The lecturer has to develop the capacity to create a stimulating learning atmosphere and to balance between guaranteeing the maximum freedom for the students when engaging in their own research, with the necessary (minimal) control of their learning process. In order to achieve this balance, it is important that lecturers know their students well. The aims of the class as well as the topic(s), the methodology and questions of ethics in research have to be communicated as

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clearly as possible. It is helpful for students to understand the context of the course as well as the criteria for their later assessment.

While as a lecturer you are supposed not to intervene unnecessarily, your role is significant: you have to realise when your intervention is necessary, and how manage this intervention effectively. This implies that you have to develop your capacity of self-reflection as a prerequisite to fulfilling your role during an IBL or PBL experience. You have to be self-reflective when explaining the structure of your course, its content as well as the application of the Reflect Lab methodology. Consider whether the course is well enough organised and plan enough time for supporting students to identify their research questions. Create your syllabus and write down the content you wish to transmit as well as the methods you wish to apply. How are you guiding students to consider different aspects and perspectives of the topic of the course? – You need to reflect about your capacity to motivate students and you need to plan a process of evaluation of your own performance. Reflect about your role as a lecturer and when you will need to intervene into the research process of your students.

In order to develop their own projects, students have to feel safe about the criteria of assessment and grading. You have to make your criteria transparent at the beginning of the course and stick to them. Projects without assessment prove to be successful, so if that option is available for you, you might wish to opt for it. If grading is obligatory, focus on the learning process and success rather than the result of the research.

Methodologies like IBL and PBL are the fundamentals of a Reflect Lab and very attractive for both lecturers and students. However, they are not so often applied. It is understandable that lecturers hesitate to experiment with new methods, and especially at the beginning, this requires a higher investment of time for preparation. However, you will enjoy the outcome and over time find it easier and much more productive than standard “chalk-and-talk” teaching methods.

## 8. Glossary

**Inquiry-based learning (IBL)** - requires students to work on a topic independently, guided by lecturers who function as facilitators. Students work on a specific topic including the development of a research question, its theorization and an empirical study. In the framework of a Reflect Lab,

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all these different steps take place in the context of a university seminar and with the help of lecturers.

According to Detjen<sup>4</sup>, IBL is characterised by

- constituting an open learning process (of beliefs, issues, problems),
- depending on methodology, communication within the group and election of subject,
- leading to the exploration and expansion of knowledge,
- experimental, self-directed learning.

**Problem-based learning (PBL)** – is part of IBL. It takes place when teachers present specific problems and students need to find solutions on their own.

According to Goll<sup>5</sup>, PBL happens,

- when a “problem” or topic is at the centre of a learning process,
- when learning happens through the experience of solving problems,
- when a selection of the topic takes place by the facilitator or lecturer
- when competences like the ability to judge, to communicate, critical thinking and self-directed learning are developed.

**Student** – Students are defined as people who study at universities. When implementing IBL and PBL, students learn how to work independently. They have to develop a central topic and a related question. Moreover, students must structure their work and establish a plan for their research. As a result, they do not only practice how to work autonomously, but also how to realize a scientific project.

**Lecturer** – Lecturers are defined as people who teach at universities. In a Reflect Lab experience, and different to usual university courses, lecturers take on a guiding and advisory role. They are responsible for the structure of the course, the infrastructure, and the learning environment. Furthermore, they assume the responsibility for reflecting on their own role and work as well as for the communication with the students. Ideally, lecturers are giving the impulses for the students’ work, without interfering unnecessarily into their progress.

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<sup>4</sup> Detjen, Joachim (2014): Forschend lernen. In: Wolfgang Sander (Hrsg.): Handbuch politische Bildung. Bundeszentrale für politische Bildung. Bonn, S. 565 – 576.

<sup>5</sup> Goll, Thomas (2014): Problemorientierung, In: Wolfgang Sander (Hrsg.): Handbuch politische Bildung, Schwalbach/Ts.: Wochenschau Verlag, S.258-265.

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**Learning environment** – the learning environment directly affects the learning progress of the students and their motivation. Therefore, it is important that the lecturer focuses on creating a productive learning environment. Essentially this includes the provided infrastructure and good communication structures. The fact that students are allowed to choose their projects freely has a positive impact on their motivation. Usually, the no-grading feature influences students' motivation as well.

**Learning resources** – a productive learning environment requires an intact infrastructure within the university. This includes seminar rooms, chairs, tables, projectors and so forth. Moreover, internet access, special software and any electronic devices that the students might need, should be available. It is advantageous if the setting of the seminar room can be adjusted easily to different situations. Students must have access to a library and, if necessary, to online literature.



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## Project partner



Leibniz  
Universität  
Hannover

The coordinating partner is The Institute of Civic Education, which is part of the Leibniz University Hannover, Germany. The overall aim of the Institute is to enable both young people and adults to acquire key skills and competences necessary for active citizenship and participation at all levels of social and political life. IDD develops, tests and implements a wide range of training programs, all of which aim to improve the skills of trainee teachers and other education professionals. <https://www.uni-hannover.de/> <http://www.demokratiedidaktik.de/>



UNIWERSYTET  
MIKOŁAJA KOPERNIKA  
W TORUNIU  
Wydział Politologii  
i Studiów Międzynarodowych

Nicolaus Copernicus University is the biggest comprehensive, state-owned university in Northern Poland. Its Faculty of Political Sciences and International Studies combines various disciplines. It is an important centre of education, science, and research, and it's ranked amongst the top 5 political science schools of higher education in Poland. The Faculty is also internationally oriented. The broad scope of research activities and broad participation in many international projects enable to attract students and teachers from all over Europe. <https://www.umk.pl/> <https://www.wpism.umk.pl/>



Manchester  
Metropolitan  
University

The Faculty of Education at Manchester Metropolitan University has experience in training teachers and education professionals. 3,000 undergraduate and postgraduate students study full time on over 60 courses each year. Another 1,000 study part time on professional development courses and research to PhD. The Faculty work in close partnership with over 1,500 regional schools, colleges and a wide range of other settings, providing students with diverse placement and learning opportunities. <https://www2.mmu.ac.uk/education/>



ALEXANDRU IOAN CUZA  
UNIVERSITY OF IAȘI

Alexandru Ioan Cuza University of Iași is the oldest higher education institution in Romania. Since 1860, it has been carrying on a tradition of excellence and innovation in education and research. With over 25,000 students and 800 academic staff, the university enjoys high prestige and cooperates with over 250 universities worldwide. It became the first student-centred university in Romania, even offering the opportunity to choose two fields of study, in a combination that best suits students' future career goals. Our team is a part of teaching and research staff of the Faculty of Psychology and Education Sciences and the Teachers Training Department.

<https://www.psih.uaic.ro/> - Faculty of Psychology and Education Sciences  
<http://www.uaic.ro/en/> - Alexandru Ioan Cuza University of Iași



Universidad  
de La Laguna

The Universidad de La Laguna (ULL) is the oldest institution of higher education learning in the Canary Islands, and it is possible to trace its history back more than 200 years. The Faculty of Education and the Department of "Didáctica e Investigación Educativa" brings together an interdisciplinary scientific community from different areas: curriculum design, advice to teachers, school leadership, school-based development, the process of teaching and learning of core competencies: learning to learn, civic competence, entrepreneurship. <https://www.ull.es/>  
<https://www.ull.es/la-universidad/facultades-centros-departamentos/facultad-de-educacion/>

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