# Phenomenon-Based Learning

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## Type of method

Teaching-learning methods

## Type of teaching-learning method

Student centered

## Short summary

PhBL is a holistic, learner-centred approach in which we study phenomena as a whole, in a real context.

## Description

This new method stems from students' curiosity, motivation, autonomy, and individual observations to ask questions and understand what seems onedimensional first, but in fact quite complex, multidimensional phenomena around them. It goes beyond subject learning but does not replace it. Rather, it places learning in a broader, multidisciplinary perspective. The aim is to improve cooperation between school and society, to blur the boundaries between subjects and to spread diverse learning methods among teachers.



Labs and makerspaces in schools are the best places for exploratory learning based on constructivist pedagogy. The use of this method requires a broad time frame, which requires rethinking the traditional timetable. The method starts with a teacher posing a problem. Afterwards, groups of students engage in design work. The planning of the project work is as important as the subsequent professional solution of the problem, because it produces a high pedagogical added value; it helps students to take responsibility and to become more organised. The teacher then acts as a coach, listening to the students' progress reports (presentations) from time to time. Finally, the teacher is responsible for organising and feeding back the knowledge acquired through independent learning into the mainstream of learning.

## The challenges, pitfalls of the method and ways to deal with them

The benefits of using the method can only be achieved if it is preceded by thorough and professional teaching.

It is a huge job to prepare, plan the application of the method, so the biggest "obstacle" is the time spent on accurate planning.

The biggest challenge, according to Finnish teachers who have used the method in many places, is that traditional teaching is forbidden for teachers. The essence of the method is not to distribute ready-made (textbook) knowledge to students, but to let them discover and create (construct) knowledge. This greatly enhances the importance of teachers' pedagogical awareness of (a) knowing exactly what this method is good for and for how long, and (b) how it fits into the teachinglearning mainstream as defined by textbooks and curricula.

## **Practical application tips**

Teaching consists of three major stages: **cognition**, **research**, **decision making**. The students get acquainted with the topic first, then draw conclusions from a small research project and make a decision.

Being practical is very important in the first stage. The concrete topic is associated with an everyday problem, a moment in a student's life, or a current social problem. The main goal at this stage is to motivate students and arouse their interest. If students feel they own the topic in some way, they will be much more willing to deal with it and will be able to learn more effectively. The topicality of the issue is also important, and teachers try to include local and regional aspects in the discussion of the issue.

In the next phase, students do a mini-research, facing various problems that they need to solve together. The problems raised in the first phase are then addressed by using a combination of methods from different disciplines. During researchal, exploratory learning, it is very important that the members of the group can work together in a coordinated way and draw conclusions.. In the third stage, students apply the information and skills they've acquired during the second stage of research. They need to find a solution to the problems that arose in the first stage, or at least take a stand on the issue. The goal here too is to be able to make decisions in their own lives or on something broader social issues, and to be able to apply what they have learned through play and research..

## Feedback from teachers and students

"For the second time this school year, the week of phenomenon-based learning has been included in the school's work plan. With regard to teaching and learning, the intention has led us to incorporate into such a seven-day work plan that students, through the phenomena of the environment around them, discover that the information they receive at school is connected to everyday life, and that the knowledge gained can be put into practice.

In connection with transport as a phenomenon, they were able to develop their own reflections and learn about scientific concepts through activities, differently from subject to subject. Transport-related knowledge materials, whether real or human, have been published in all subjects.... The aim is that, in the longer term, during these weeks, learning will be organized around a complex study of a given phenomenon, and the students' research work will be decisive along the phenomena studied. "

(From the WEB page of Zsigmond Móricz Reformed Grammar School, Vocational High School and College, Hungary)

## Advantages of the method

By linking different areas of learning, not only does the curriculum become more lifelike and exciting, but the context of the world is easier to recognize.

Different approaches to the phenomenon take place through group work, joint dialogue, or even outdoor discoveries (it always depends on the topic). The goal is to encourage students to become more curious, to ask questions, to understand the big picture and gain deeper knowledge. Stimulating motivation is also important, and phenomenon-based learning also provides an opportunity for all learners to return home with personalized homework.