

Project Approach to Teaching and Learning Economics

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Abstract

The article analyses project teaching/method from theoretical as well as practical point of view. We compare its definitions by various authors with the views of secondary school teachers of economic subjects. Based upon the results of the analyses and comparisons, we generalise the basic features of this concept of teaching and learning and suggest its possible combinations with other methods and concepts of teaching suitable for the process of economics education.

Keywords:

Project-based learning
 Project method of teaching
 Economics education

Schlüsselwörter:

Projektbasiertes Lernen
 Projekt-Unterrichtsmethode
 Wirtschaftliche Bildung

1 Introduction

Projects have been popular with many teachers and students of economics for several decades. Still, even with more than a century-long history of project method of teaching, in the theory of didactics and in pedagogical practice there is not a clear and distinct understanding of this term and what it should include.

The article analyses various definitions of project method according to different authors and compares them with how secondary school teachers of economic subjects in Slovakia view this method of instruction. Based upon the results of the analysis, we try to generalise the main features of this concept and conclude the article with a description of possible combinations of project approach to teaching and learning economics with selected other methods of instruction and educational concepts.

2 Project-Based Learning or Project Method of Instruction?

2.1 A Brief History of the Project Method

The origins of the so-called project method are usually connected with W. H. Kilpatrick of Columbia's Teachers College, who published a famous article in which he described this method in 1918. However, according to the results of the research by M. Knoll (2014, p. 665 – 666), the project method emerged several centuries earlier in 1577 in Italy in order to bridge the gap between theory and practice, science and reality in the educational process designed for architects at the Accademia di San Lucca in Rome. It later transferred to France and almost three centuries later it finally arrived in the U. S. A., where it was gradually developed into three basic models: the linear model, the holistic model and finally the universal model propagated by W. H. Kilpatrick in the article mentioned above.

However, W. H. Kilpatrick did not originally describe the project as a method of teaching, but he defined it as a philosophy of education based upon wholehearted purposeful activity, which meant it was absolutely child-centred by definition. The project was much more about what the pupils themselves chose to learn than about what the teacher had decided to teach them in accordance with the pre-set educational goals. Thus, W. H. Kilpatrick was the originator of the idea of the so-called project-based learning, which is still popular with many teachers and pupils nowadays.

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This broad definition of the term was different from what it had been used for by educationalists before. That caused disputes about the nature and the essential characteristic features of the project method. Is it a teaching method or rather an approach based simply on independent pupil learning through projects assigned by the teacher or even chosen by the pupils themselves to suit their own interests? Does it have to be about a construction type of practical tasks to connect theory with practice? Or can it focus on anything that is of interest for pupils?

Almost a whole century has passed since then and many of these questions remain unanswered in the theory of didactics. This causes a lot of contradictions in the relevant terminology as well. Some authors still prefer to speak of a project method (Malach, 2003, p. 118; Petlák, 2004, p. 148 – 149; Harausová, 2011, p. 28 etc.), others consider projects in education to be suitable only for child-centred project-based learning. There are a lot of authors who prefer to use the term project teaching, implying that it is not a sole method of instruction, but in fact a bunch of methods and teaching aids combined together in order to reach the set educational objectives with a project assignment as the key element to link them in a purposeful way. Some authors even consider project teaching as an organisational form of education (e. g. Zormanová, 2014, p. 116; Skalková, 2007, p. 234).

2.2 The Theoretical Background of Project Approach to Teaching and Learning

For the beginning, we start with a definition of the project method in a way that Columbia's Teachers College still refers to it in connection with J. Dewey and W. H. Kilpatrick. On their actual website, they describe the project method introduced by Kilpatrick as a practical approach to implementing John Dewey's educational philosophy that allows students to solve problems with minimal guidance from a teacher (Teachers College, 2015).

Using the project method, Kilpatrick wanted to overcome the atomisation of the educational contents into traditional school subjects by integrating them into logical units that should be in accordance with common practical life situations. He called those units “projects” and claimed that their aim was not for the pupils to acquire new knowledge through the projects, but to develop their skills and competencies necessary to live successfully in a democratic society. It was therefore very important that the pupils should be active and work independently (i.e. without continuous teacher's guidance) during the whole course of the project – from setting the project goals and planning tasks implementation schedule, through the implementation itself, to the critical evaluation of the achieved results (Spevák, 2014, p. 98 – 99).

The authors who describe the project approach in that way usually speak of project-based learning rather than project method of instruction. J. Larmer and J. R. Mergendoller (2010) claim that a good project has to fulfil two basic criteria. First, pupils must perceive the work as personally meaningful, as a task that matters to them and that they want to do well. Second, a meaningful project used in the educational process should fulfil an educational purpose. From these basic requirements they derive seven essentials for *project-based learning*:

1. *A Need to Know* – many students do not perceive a need to know what they are being taught, which results in lack of motivation to learn. It is therefore vital that the teacher should first activate pupils' need to know, e.g. by launching the project with an “entry event” that engages interest and initiates questioning;
2. *A Driving Question* – without a driving question, pupils may not understand why they are undertaking the project. On the contrary, a good driving question at the beginning captures the heart of the project and gives pupils a sense of purpose and challenge. It should be provocative, open-ended, complex, and linked to the core of what pupils should learn thanks to the project;
3. *Student Voice and Choice* – it is important that pupils have the right to influence as many elements of the project work as possible. At least, they should be allowed to select what topic to study within a general driving question or to choose how to design, create and present products. However, teachers should design projects with such an extent of pupil choice that fits both their own style and pupils. If it is possible, pupils can even decide what products they will create, what resources they will use and how they will structure their time;
4. *21st Century Skills* – the project should give pupils opportunities to build such skills as collaboration, communication, critical thinking etc.;
5. *Inquiry and Innovation* – in a good project, pupils should begin their inquiry with their own questions, which should lead to a search for resources and the discovery of answers, testing ideas, and finally, making their own conclusions;

6. *Feedback and Revision* – formalising a process for feedback and revision during a project makes learning more meaningful because it emphasises the importance of high-quality products and performance;
7. *A Publicly Presented Product* – when pupils present their work to a real audience, they are forced to care more about its quality.

Some of the aspects described above are considered to be important even by those authors who prefer to speak of a project method of instruction rather than project-based learning (for example, compare with Petlák, 2004, p. 148 – 150). However, not all of them are thought to be inevitable features of project work by all authors. 21st century skills are important in contemporary society, but they can be developed by several other teaching methods, so why should they always be an inevitable feature of project teaching or project-based learning? It may focus on different educational objectives as well. Communication and presentation skills are some of the most important 21st century skills, but why should every project have to end with a public presentation of its product? Why shouldn't it sometimes be enough for a teacher to evaluate the pupils' products?

If we accept all the other essentials of project-based learning described above as its inevitable features, this educational concept does not seem to be the result of a sole teaching method implementation. If pupils have the right and are even encouraged to influence the whole course of the project implementation (beginning in the early stages of planning the project, its objectives and products, and continuing in the phase of its implementation by a free choice of the ways how they want to reach them), then we can say that when we use projects of this type in the educational process, it requires a change in its traditional organisation. What is more, if the pupils are free to choose the methods they use in the process of project implementation, it implies that a mixture of teaching methods are used (chosen by pupils) to solve the project, so the meaning of the term project method must be much wider than what we usually understand by a method of instruction.

There are two main arguments against the use of the term project method. First, if it is considered as a project-based *learning* approach, then it is not really a *teaching method*, but a concept of education which is child-centred and basically lets pupils educate themselves in a way that they like and prefer. Of course, this is an extreme view, which degrades the role of the teacher to a mere assistant and observer. We believe that the teacher should always be the managing subject of the educational process, who is responsible for both setting its objectives and their achievement by the pupils.

With the teacher being the managing subject of the educational process, using projects in education should always be his or her choice based upon the educational objectives that the teacher has set (taking into account the pupils' educational needs). But the work on the project usually involves a mixture of methods that the pupils can at least partly choose. Therefore, even if project work is assigned by the teacher, the second argument why it is not convenient to call it the project method is the variety of methods (i.e. the ways in which the teacher and the pupils work during the educational process) that are used to fulfil the educational objectives of the project and to create the project outputs. That is why we prefer to speak of *project teaching* or project approach to teaching and learning to emphasise that project work in education is a complex concept of teaching that involves a whole bunch of methods and teaching aids.

Many authors stress that the tasks assigned to the pupils within project teaching should be of a problem type. Problem-based learning is a different educational concept which can be implemented in many ways – project teaching being just one of them. The problem tasks suitable for project teaching should be more complex. To solve them, pupils should need knowledge from several different areas, i.e. several traditional school subjects. Smaller projects can be assigned within one school subject, but the knowledge necessary to solve them should still cross the borders of its educational contents. Some authors, however, do not agree with the necessity of problem-oriented tasks in project teaching. For example, Turek (2008, p. 381) divides projects into several categories: problem-oriented projects, design projects, evaluation projects and even drill projects.

Traditionally, one of the essential features of project teaching was practical orientation of the tasks. However, according to Petrašková (2007, p. 8), the world of knowledge is not only a world of action (practice), but also a world of concepts and methodology of thinking. This is in contradiction with the prerequisite that project teaching must be purely practical. That idea is also supported by Skalková (2007, p. 234), who claims that project teaching is based on the solution of complex theoretical or practical problems.

2.3 Secondary School Teachers' Opinions about Project Teaching

In order to compare the theoretical basis of project teaching with its perception in current pedagogical practice at secondary schools in the Slovak republic, we conducted a survey of secondary school teachers' views. The

aim was to find out how they understand the concept of project teaching and which characteristics they attribute to it. The survey was conducted in October 2016 with 135 secondary school teachers from all over Slovakia, of which 118 were women and 17 were men. We used a questionnaire distributed via the Internet. Teachers had to claim which characteristics they definitely associate with project teaching according to their own experience in their teaching work (for more detailed information, see Novák – Pasiar, 2017).

The results of the survey showed that teachers perceive project teaching concept predominantly (62.20%) as pupils learning to solve practical work tasks. Almost the same number of the respondents consider project teaching as a concept which involves a systematic use of multiple teaching methods. 60.70% of the respondents think that the emphasis should be put on solving complex problems and gaining experience through practical activity and experiments. It is clear that according to the teachers, project teaching should focus on the acquisition of practical skills, which, however, is not a necessary condition according to the modern theory of didactics.

The assumption that teachers often perceive projects inaccurately as any type of exercises to practice the curriculum was also partially confirmed. At the same time, we can conclude that solving complex tasks, which go beyond one school subject, is also automatically perceived as project teaching by many teachers, which is not always true.

Nearly a quarter of the respondents (23.70%) answered that any type of planned and independent activity of pupils aimed to solve a task assigned by the teacher can be considered as project teaching. This cannot be accepted, because for example finding some information on the web and writing a short paper on a given topic for homework should not be considered as project work. Still, many teachers call it a project, which causes misunderstanding between theory and practice of project teaching.

Around 20% of the teachers argued that it is inevitable to use group work of pupils in project teaching, but this is not confirmed by the theory of didactics. There are individual projects as well as group projects or even whole-class projects. The choice should depend on the educational objectives that the teacher wants the pupils to achieve.

2.4 The Basic Characteristic Features of Project Teaching

To summarize the findings from the previous pages, we can conclude that every project used for educational purposes should have the following characteristic features:

- it should be a problem by nature because project teaching is mostly a certain form of problem-based learning, though very specific (nowadays it is very rare to talk about projects in education if they do not include problem tasks),
- it should always have clear and achievable goals which must clearly correspond to the objectives of the educational process,
- the whole process of achieving the goals should be naturally motivating, i.e. meaningful from the pupils' point of view – the teacher should activate their educational needs and then leave most of the initiative to the pupils,
- project teaching should be continuously guided by pupils themselves with some help from the teacher only when necessary – however, the teacher must remain in the position of the managing subject of the educational process, especially with a view to making sure that the educational objectives are achieved,
- it is vital that (already in the planning phase) the teacher and/or the pupils define a specific output of each project as well as the criteria according to which the results of the project will be finally evaluated.

Having studied the cited and many other theoretical resources as well as the results of the survey, we believe that the key feature of project teaching is the activity of the learners – whether they are individual learners, groups of pupils, whole classes or even whole schools. The teacher's role is mainly to motivate the pupils in the beginning and to give them support when necessary during the project implementation. The tasks given should be mostly of problematic nature, and they should be consistent with the set educational objectives of the project. Every project should have a certain output, but it does not necessarily have to be a direct reflection of the fulfilment of the educational objectives. They should be fulfilled in the activities carried out in the process of project solving (the activities help to develop certain skills etc.). Although the project may not exceed one school subject in terms of organisational form, it should combine knowledge from different areas with a focus on the core of the project (the topic or the problem that should be solved). In this sense, it should have a complex nature, as opposed to simple tasks for regular repetition and curriculum practice.

3 Possible Combinations of Project Teaching and Other Teaching Methods in Economics Education

One of the teacher's tasks in project teaching is to activate the pupils' educational needs so that they can work on the assigned tasks on their own. For this purpose, he can use a *case study* to stimulate discussion in class in the initial phase of the project and to encourage the pupils to think about the problems related to its topic. If it is properly designed, it should be interesting for pupils and provoke a clear conflict that should guarantee their motivation to participate actively in the course of the project. Solving a case study is a very good starting point for most projects in economics education because it is one of the best tools to bridge the gap between theory and practice.

Discussion methods and an *interview with pupils* can be used not only in connection with a case study in the initial phase, but also separately later in the course of the project. They are appropriate to be used during the project solution (e.g. to discuss the next step) or at the end of the project activities to evaluate the outputs achieved.

To present the outputs of certain projects, it may sometimes be a good idea to use *role play* as one of the final methods in project teaching. This way the outputs might be presented to the other pupils in an illustrative and attractive way, which would help to explain the conclusions reached by each group of pupils.

To illustrate a possible combination of project teaching with another teaching method in economics education, we chose its combination with case studies. Economic reality offers a large number of everyday problems which economists and politicians are trying to solve. Describing an actual problem in economic practice in the form of a good case study helps to raise a good driving question by the pupils themselves.

When we were looking for possible topics where a combination of project teaching and case studies might be beneficial, we analyzed the results of the questionnaire survey of secondary school teachers' opinions which we mentioned in chapter 2.3. One of the areas we examined in the survey were also the topics in economics education which the respondents thought to be the most suitable for project teaching. After critical evaluation of their suggestions with regard to possible combination of project teaching with case studies, we have come up with several suggestions of topics that are taught in a number of professional economic subjects (Novák, 2017):

- creation of a business plan, establishment of a business,
- market research and marketing planning,
- SWOT analysis,
- marketing communication,
- pricing in accounting,
- procurement and decommissioning of long-term assets,
- property wear and tear and its depreciation,
- financial analysis,
- tax system of a country,
- cost and price calculations, budgeting,
- creation of banking or insurance products,
- tourism, presentation of touristic destinations,
- planning and budgeting ceremonies and events,
- consumer protection and quality control of goods and services,
- organizational structure of a company,
- leadership styles and motivation of employees,
- job analysis, human resources planning,
- recruitment and selection of employees,
- remuneration of employees,
- e-commerce and banking,
- state budget etc.

It is clear that the topics suggested above are not the only possible areas where the use of case studies to initiate project teaching in economics education is appropriate. However, they were derived from experienced secondary school teachers' suggestions, so we consider this list to be illustrative enough and a good indicator of what all such topics should have in common:

- they should be broad enough to require knowledge from several different areas,
- they should offer the possibility to formulate a story with an interesting plot and some conflicts,

- there should be a possibility to identify problems and tasks for the given area with not always a clear solution,
- they should be suitable for linking theoretical knowledge in economics with economic practice,
- the related problems should be adequate, taking into account the pupils' knowledge and skills,
- they should include interesting issues from secondary school pupils' point of view etc.

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