# Innovative in schools

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*Abstract:* The quality of education is one of the indicators that speak very strongly about the maturity of the country. In Slovakia, the topic of education has long been the focus of interest from the professional public. Since the establishment of the independent Slovak Republic, several reforms have been implemented in the field of education. In the V4 countries, we rank last and our students do not even reach the average level within the OECD. In the past few years, nothing fundamental has happened in the Slovak education system, which could lead to the development of various forms of literacy of our pupils. Based on the above, we discussed in our contribution the possibilities of innovation in contemporary education.

*Key words:* school, teaching, teaching process, innovation, modernization, humanization.

Slovak education is criticized from all sides. Not only the educational public but also parents and pupils are criticized. Especially the uniform character of education, overestimating intellectual education, is criticized. Many times the individual approach of the teacher is absent, memorizing is preferred, communication between pupil, teacher and parent is impaired. It often happens that knowledge is overestimated without the ability to apply it in practical life. These problems were initiated by changes in the educational process in order to humanize education. A new reform of the education system is under preparation, which is addressed in the document "Learning Slovakia". The authors of this document state that teachers fail to realize an individualized approach to children and pupils. The organization, content and forms of education in schools are not adapted to expose the unique potential of children and reflect their needs. Teachers are not sufficiently prepared to motivate pupils to be more active, discovering, exploring phenomena, searching for information or context. The humanisation of education should not be seen as a fashion wave in our education system (Petlák, 1997). After all, the school should not be a place of negative emotions for pupils. Pupils should look forward to education. Today's society, not only in Slovakia, but also in Europe, faces many problems and changes. Changes in the economy, labor market, globalization, new types of communication, modern technologies and many other social and economic phenomena raise many questions that we have to face. The aforementioned changes do not avoid the field of pedagogy. They inherently concern children, young people and educators at different levels of education.

At present, the development of ICT is so intense that passing on information that is aging quickly seems unnecessary. From our own experience we know that more than learning facts and new knowledge, it is necessary to learn for life. The personal possibilities of pupils and their social competences are at the forefront. It is interesting to note that today the teaching process is often conducted in such a way that the pupil and not just the teacher are active. The issue of improving education in Slovakia in education is extremely important due to the above-mentioned changes. The professional pedagogical community is much more intent on modernizing and reforming education. Modernization as a didactic problem is nothing new in pedagogy. In fact, modernization is as old as pedagogy or didactics itself. The correct understanding of modernization is that it combines the modernization of the material-technical basis, the content, the aims of education and the procedural aspect, as well as the modernization of methods and forms of educational work (Maňák, Švec, 2003).

The National Program for the Development of Education - Learning Slovakia, which tries to respond to the above-mentioned problems of today's society, works with the concept of reform. The strategic objectives of the national program for regional education have been defined as follows: A truly functioning and effective reform of education is, in our opinion, essential. However, we would like to note that every teacher can modernize the educational process. The teacher decides what method or form and for what reasons he / she will apply it, he / she decides what concepts of teaching he will use in practice. He decides whether to use

pupils' creative abilities, apply a differentiated approach to pupils or group-problem-based teaching. Thus, every teacher can implement education reform immediately.

At present, significant political, economic and social changes are taking place in our society. These necessarily accelerated the need for change - the transformation of education. Therefore, it is necessary to ask whether our education system is ready to educate and educate pupils on a new social reality. In our opinion, the Slovak education system is not sufficiently prepared for the task (Pasternáková, Tkáč, 2019).

There are several negative phenomena that could be criticized and their removal would form the basis of humanization and education (Oberuč, Zapletal, 2017):

- Encyclopedia of knowledge - over-dimensioning of the curriculum - scientific knowledge without the possibility of interconnection of individual fields.
- Transmission of knowledge - handing over the teacher's knowledge to the pupil - overestimating the cognitive aspect in the classroom and focusing on the pupil's performance, where there is room for fear, tension, loss of child's self-esteem.
- Deformation of the teacher-pupil-teacher relationship has a dominant position and becomes directive, the pupil fulfills the role of the passive object of the teacher's work.
- School education system - the normative and uniform character of the school does not respect the individuality of the child, his or her needs, etc. At the same time the internal motivation of the teacher goes out.

In addition to classical teaching (dogmatic type, interpretative-illustrative type), other teaching concepts are used in teaching practice. The conception is understood as the harmonization of the procedural and formal aspects of teaching (Petlák, 1997).

The teacher and the style of working with pupils play a decisive role in their practical application. In our view, there are several reasons why they are not used more often in classes: they are very demanding for teacher training; require a thorough understanding of the scheme of the concept;

the optimal functioning of the concept can only be achieved after some experience; they require multiple hours of time, which makes it difficult to organize lessons (classroom layouts, etc.); the current organization of teaching in schools does not facilitate the use of modern concepts; the need to rotate several concepts during the school year so as not to lose interest on the part of pupils; not all pupils, respectively. classes are able to actively work and participate in the activities within the concept.

We use some of the modern concepts mentioned in this chapter quite often during the lessons (cooperative teaching, differentiated teaching, project teaching). We see a number of benefits in these concepts that are attractive to both pupils and teachers. Together with pupils we discuss the use of modern teaching methods and concepts and reflect their advantages and disadvantages.

Cooperative teaching is a modern type of teaching. It is not a new concept; its beginnings date back to the first half of the twentieth century. At present, it is the most modern innovation trend in the USA and other OECD countries, in our country it is rather known as group teaching, which can be considered a subset of cooperative teaching (Turek 2014).

The main features of cooperative teaching are: structuring group work (giving clear instructions and tasks), group composition, positive interdependence (joint work on tasks), direct interaction (close pupil contact), individual responsibility (each pupil is responsible for himself, but the formation of social skills (mutual respect, common decisions of pupils), reflection of group work (continuous and final reflection and feedback for the pupil). Another reason for cooperative teaching is the fact that the work of the group tends to be larger than the sum of the work of the group members if they work alone.

According to Turek (2014), the effectiveness of cooperative teaching depends on the following factors:

- Positive interdependence of members - interdependence is created if pupils receive a common reward for achieving the goal (adopted by all members) together.
- Group members to contact each other - group members should see each other face when working together, the arrangement of the furniture should be appropriate.
- Personal responsibility of group members - each group member should be involved equally in the work. It is not enough if the task is solved only by some members. In order to receive a reward, they must explain the solution to the other members.
- Improving interpersonal and communicative skills - acquiring this competence by pupils involves adapting to a common pace of work, adopting forms of verbal and non-verbal communication that do not interfere with one another, the ability to lead classmates and be guided by classmates.
- Guiding the work of groups - work in a group should aim to achieve the goal. Time should not be wasted, pupils behave correctly.

The number of members of the group can range from 2 to 6 pupils. The optimum number of groups in a classroom is considered to be 6 to 8. Pupils are divided into groups spontaneously (choosing themselves), randomly (the teacher randomly identifies the group members), guided (the teacher selects the pupils in the group according to certain criteria).

Homogeneous groupings may arise in a group if pupils are equally efficient in the group. If a group is formed from above-average, average and below-average pupils, this creates a heterogeneous grouping. We consider the systematic division of pupils into groups when the teacher selects pupils into groups according to certain criteria. Random selection by the teacher may give rise to initial dissatisfaction, which complicates the identification of a group member with some of the group members. If pupils divide spontaneously, there was often the problem that some pupils did not choose any of the groups for any reason.

According to Petlák (1997), and (Geršicová, Barnová, 2018) problem teaching is the activity of a teacher, which is reflected in the provision of conditions for problem learning of pupils by establishing a system of problem situations and managing the problem solving process by pupils. Problem learning is the activity of pupils healing to acquire knowledge and ways of action by analyzing problem situations, formulating problems and solving the hypotheses set out and verifying them. In the consciousness of some pupils, however, there is no contradiction between the known and the unknown, either because of his talent, everything is known to him, or because of non-systematic teaching, everything is unknown to him. It is therefore necessary to treat pupils differently. The essence of problem teaching is the creation of a gradual series of problem situations and management of pupils' activities while solving problem tasks more or less independently. Creating an atmosphere of trust, safety and security, sincerity in the teacher-pupil, pupil-pupil relationship, recognition and respect of feelings and attitudes is essential in realizing problem teaching (Turek, 2014).

In the literature, project teaching is differently defined. Some authors identify project teaching with the project method. Others see project teaching as an organizational form composed of different phases and using different methods and forms of work. Others focus on the project as a result, the outcome of project teaching. The project method is a teaching method in which pupils are encouraged to work independently on certain projects that create complex tasks or problems related to the reality of life. The hallmark of project teaching is the goal, which is represented by a specific output, ie a product, a practical solution to a problem, etc. Projects take the form of integrated topics, using cross-curricular relationships. Depending on the number of researchers, projects can be individual and group, short or long term, depending on the place of implementation, school, home and combined.

The project principles are based on the following principles: The theme of the project should take into account the needs and interests of the pupils. The project should be a bridge between school and life. The prerequisite is pupils' interest and motivation. Projects should allow an interdisciplinary approach. Projects should be solved by pupils in cooperative teaching. Project results should lead to concrete results and pupils should acquire specific knowledge, skills, attitudes, qualifications based on them (Turek, 2014).

Differentiated teaching is not new in didactics. In our opinion, differentiated teaching is still up to date because pupils do not have the same pace of learning, interests, abilities, etc. Thus, universally directed teaching does not always suit everyone. Therefore, when we talk about differentiated teaching, we mean teaching in which we adapt the management of the educational process, the content of education, the methods and forms of work to different groups of pupils or individuals. The purpose of differentiation is to manage teaching to match each pupil. Capable and gifted pupils make full use of their abilities. It enables average and weaker pupils to master the curriculum. Properly applied differentiation supports pupil activity and contributes to the effectiveness of teaching.

## 1.1    Conclusion

From the point of view of managing the educational process, ie directly in the classroom, we are interested in internal differentiation. The point is that within the lesson, the content of the curriculum, the methods and forms of the teacher 's work are adapted to the pupil' s level. Methods of internal differentiation include:

- differentiated teaching in certain stages of the teaching process - most often applied in the final part of the lesson (different assignment of questions, tasks, homework),
- work on a new curriculum with a group of gifted pupils,
- dual interpretation method - the teacher has two variations of mediation of the curriculum,
- method of prolonging the interpretation - the teacher will employ the practical tasks of pupils who have previously understood the subject matter,

- working with departments - the class is divided into three groups (best, middle, weakest pupils), allowing the teacher to address almost all pupils individually (Petlák, 1997).

In differentiated teaching, we see a huge positive fact that, when properly applied, this type of teaching has an incentive effect for pupils. Pupils can be convinced that they are able to master the curriculum. The disadvantage of this method is the difficulty of working as a teacher. It is necessary to pay great attention to the correct application of differentiation, so that pupils do not feel inferior, respectively. some pupils feel superior. In general, in our opinion, differentiation should be used by teachers as often as possible. In the paper we introduced key innovative methods that can make the educational method more effective. Innovative methods are much more than we characterized in our text, but in our opinion, those we have paid attention to are, in our experience, the most effective.

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