

Selected Strategies for Problem Solving in Secondary Schools

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Abstract

Problematic situations in the educational process pose a significant challenge, affecting not only the effectiveness of teaching but also the quality of the educational environment. This paper explores key problematic situations that secondary school teachers frequently encounter, including disciplinary issues, student demotivation, and difficulties in understanding the curriculum. The authors aim to analyse these situations in terms of their potential causes, their impact on the educational process, and possible intervention strategies. The paper provides an overview of proven strategies for effectively addressing these problems, with an emphasis on developing pedagogical skills and building positive relationships between teachers and students. Research findings show that a proactive approach to problem situations can significantly improve the quality of teaching and contribute to a healthy school climate. The paper offers insights for teachers and school leaders on how to better manage the challenges of everyday teaching practice.

Keywords: Problem Situations; Educational Process; Vocational Education; Prevention; Solution; Communication

1 Introduction

Schools are currently challenged with the important task of implementing learning technologies that are centred around human needs. Today teachers are expected not only to impart information and develop students' practical skills, but also to teach them how to independently seek and obtain information and conduct independent research. Thus, the

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effectiveness of the educational process is highly dependent on the teaching methods that teachers use. Although the introduction of innovative teaching methods may pose some problems and reduce the effectiveness of learning, it is up to teachers to select the methods that best suit the needs of the class and the learning objectives. While the core knowledge framework is still key, modern methods can develop students' key competencies that result in creativity and social skills (Turek, 2010). Teaching techniques that foster active student engagement include dramatisation, scene enactment, and staging methods. These approaches serve as effective complements to traditional lecture-based instruction, enhancing students' understanding of the concepts being discussed. The selection of an appropriate teaching method is crucial not only in school education but also in broader pedagogical contexts. Future teachers should be exposed to a diverse range of teaching methods during their studies, enabling them to select the most suitable approaches based on specific educational requirements. An essential part of pedagogical competence and therefore part of the preparation of a future teacher is also resolving problem situations. We will further focus on staging methods for the proper development of a teacher's pedagogical competences.

2 The Basics of Staging Methods

The staging method capitalises on individuals' natural need to communicate, engage, and express themselves while learning. In this approach, students actively participate in the teaching process, taking on an interactive role in their own education (Průcha, 2017), (Kotrba & Lacina, 2011), (Lucas et al., 2012). The basis of the staging method lies in fulfilling the goals of teaching through the students' own activity, in stimulating their productive activity associated with creative thinking, emotional experience, while solving problem situations within the pedagogical practice (in a group, class, plenary). This approach fosters experiential learning. Experiential learning begins when our direct contact with the world or with ourselves causes a change in behaviour, interpretation of phenomena, degree of independence or creativity (Kotrba & Lacina, 2011), (Lucas et al., 2012). Two key elements of the method are the direct involvement of the student in the problem, unguided by an external agent – the teacher, and the change that occurs in the student in terms of understanding or self-understanding. Experiential learning involves the exploration of personal feelings, attitudes and values through which cognitive skills can be applied either directly during the activity or as a later response to it.

The staging method can be understood as a didactic method, the basis of which is a problem from a real social environment in the context of group work. The actors of the educational process thus participate in the problem solving and teaching itself. In general, participatory methods have a contribution to educate active creative work of conceptual workers, problem solvers, organisers and managers. There are teaching methods that innovate professional education not only for managers (making it more effective, more interesting, combining

teaching with training, theory with practice) but also for students and teachers. Teaching and learning can only take place effectively if the style and methods of work in school are brought closer to situations in everyday life (Lucas et al., 2012), (Tesařová, 2016). Participatory methods go beyond the narrow framework of the school environment by simulating the relations of social reality (Válek & Šmejkalová, 2024). They are highly motivating for students, force them to actively participate in problem solving, develop independence and creativity in their thinking, are not infrequently associated with a strong emotional experience for students and additionally allow them to defend their point of view in a sophisticated way in the learning collective. All these aspects are pedagogically extremely effective as well as extremely sensitive, as they create and deepen students' intellectual skills and social competences immediately applicable in their future professional and personal lives.

According to Šmejkalová (2001), the use of participatory methods presents certain challenges in school practice, which define the limitations of their applicability:

- Students usually need to have some knowledge about the topic.
- The teacher must overcome/relinquish directive control and dominance in the classroom.
- The method requires more teaching time and organizational preparation.
- Lack of appropriate study materials and aids needs to be considered.

The staging method, as one of the participatory methods, places increased knowledge demands mainly on the teacher. The difficulty lies in the preparation of the staging, the realisation and the evaluation. The staging method is of irreplaceable importance due to its activating potential, dynamizing charge and complex influence on the student's personality.

A special role in the implementation of the staging method can be played by video recordings, which provide not only records of the situations solved, but also of the attempts to solve them. However, the most important moment is the audiovisual experience of the performance itself, acting as the most effective and often personally surprising feedback (Průcha, 2017), (Nováková, 2014).

In accordance with (Olimov & Mamurova, 2022), we find that it is necessary for the above method for the teacher to adjust his/her approach to the student and to science. Specifically, then, according to (Olimov & Mamurova, 2022), we are talking about, for example:

- a) Determining the role of the student in the process of learning and personal development (the student actively participates and self-evaluates as a disseminator of subjective experience and at the same time).
- b) Normative requirements for the student's professional development.
- c) The creative abilities and skills of the teacher, which are of great importance in the organization of the educational process.

The current relevance of the topic is indicated by current research in this field of education. Mostly it is focused on health care education where doctors, nurses or other health care personnel are trained, for instance (Zulissetiana et al., 2024), (Johnson et al., 2021), (Halpin & Gopalan, 2021) and the method is also used in primary schools (Papageorgiou, 2022), (Behak & Bsharat, 2021), (Şengül & Tükenmez, 2009) and in secondary schools there are (Kucharčíková & Tokarčíková, 2016), (Puri, 2022), (Olimov & Mamurova, 2022) and (Leupin, 2016).

For instance, Papageorgiou (2022) investigated Greek primary school teachers' attitudes towards the inclusion of dramatisation in the educational process and its benefits. Special attention is paid to the analysis of differences in views based on gender, age, length of experience and experience of working with immigrant pupils. The analysis uses statistical methods to process the data. The inclusion of information on the number of immigrants who have come to Greece in recent years helps to better understand teachers' willingness to work with these pupils and to explore how demographic factors influence their attitudes towards dramatisation.

The analysis (Papageorgiou, 2022) looks in more detail at the comparison of attitudes by demographic characteristics, where all the groups studied show very positive values, often exceeding the average of 4. For example, statements about the effectiveness of dramatisation as a teaching method or its benefits for foreign language learning and the release of emotional charge are rated very positively. Similarly, statements about stimulating imagination, creativity and socialisation through dramatisation score high regardless of the teachers' length of experience.

In gender-based comparisons Papageorgiou (2022), the differences are minimal, and likewise for the group with 7-12 years of teaching experience, where statistically significant differences are limited. For groups with longer teaching experience (13-18 years and 19+ years), positive attitudes towards dramatisation are even more pronounced. An examination by age shows that older teachers (41+) have more positive attitudes towards dramatisation, suggesting that recognition of the benefits of dramatisation to the educational process increases with age and experience.

3 Choosing the Appropriate Social Reality for the Staging Method

The family plays a crucial role in shaping students' behaviour at school. The educational environment that parents create has a direct influence on how children/ students behave and what values they acquire.

Students who grow up in an environment where they are supported, praised and where the emphasis is on education tend to be more active, confident and engaged in school. Conversely, students who experience a lack of support or are exposed to stress and conflict may have problems with behaviour, concentration and motivation.

Parents' uncritical defence of children's/students' risky behaviour, such as making excuses for misbehaviour or ignoring problems, can have long-term negative consequences. Such behaviour can lead to an individual being unable to recognise the limits and consequences of their behaviour, which can negatively affect their relationships with others and their ability to function in the school environment.

The staging method, if it works, can enhance the effectiveness of the educational process. However, like any other teaching method, it works differently in specific times, places and conditions. The absence or inappropriate modification of certain factors can reduce or eliminate the educational effect of a model situation. (Šmejkalová, 2001), (Milmeister et al., 2022), (Olimov & Mamurova, 2022).

The implementation of the model situation method requires a well-thought-out methodological and organisational preparation, including specific teacher skills. It is necessary to build on students' previous knowledge and skills acquired in the frontal teaching method, in discussions and in group problem solving. This allows students, in addition to the repetition of theoretical postulates, also feedback on the degree of success of choosing the optimal approach to the development of teacher preparation for the lesson and its subsequent application in the classroom. (Šmejkalová, 2001), (Milmeister et al., 2022), (Olimov & Mamurova, 2022)

Students often have the idea that preparing a teacher for a unit of instruction is only a matter of their professional training, i.e., they prepare only in terms of content. Therefore, the course *Education of Pedagogical Competencies of Teachers* at the Faculty of Education, Masaryk University, was taught using the staging method.

The challenges faced not only by novice teachers but also within our primary (ISCED-2011 Level 2) and secondary school system (ISCED-2011 Level 3) include student discipline issues, truancy, bullying, and student aggression. Selected risk behaviours in Czech schools are shown in Table 1 and in Table 2. Students often come from teaching practice with questions about communication with parents of students. Parents' actions may not always be conforming as they may not acknowledge that their child has educational or parenting problems. The authors prepared a static case study for students and then a production with the theme of the troubled parent.

Table 2 provides a more detailed look at the frequency of risky behaviour among students in the secondary school system (ISCED-2011 level 3) for the school year 2022/2023.

To put the values from Table 1 and Table 2 into proper context, it is necessary to present the numbers of primary schools (ISCED-2011 level 2) and secondary schools (ISCED-2011 level 3) in the Czech Republic in each school year, as shown in Table 3.

	2015/ 2016	2016/ 2017	2017/ 2018	2018/ 2019
Cyberbullying	23.0	20.5	24.5	29.9
Verbal aggression against teachers	32.9	33.1	32.0	33.3
Physical aggression against teachers	3.4	6.2	3.4	4.4
Aggression. violence. bodily harm	33.7	32.9	34.2	30.7
Substance abuse	8.2	10.8	8.4	9.2
Smoking	22.6	25.0	26.1	26.8
Damage to property. vandalism	33.2	30.9	31.3	32.4
Theft	26.3	24.6	24.2	23.5
Truancy	45.7	43.5	44.8	43.8
Other	7.6	10.4	10.9	19.7

Table 1: Percentage of schools with cases of risky behaviour for given periods, source (CSI, 2016) and (Spitzerová et al., 2023).

	Very often	Frequently	Occasionally	Does not occur
Cyberbullying (intimidation or verbal abuse outside school)	1.4	1.5	10.6	86.5
Physical violence between pupils	1.4	1.3	12.1	85.2
Truancy	4.9	10.6	37.8	46.7
Destruction of other people's belongings or school premises (vandalism)	2.4	3.0	22.6	72.0
Intimidation or verbal abuse between students	3.2	5.9	23.5	67.4
Cheating	15.4	24.7	44.8	15.1
Foul language, swearing	21.2	28.2	37.6	13.0
Disruption in the classroom	20.7	36.8	37.4	5.1

Table 2: Prevalence of risky behaviour in the classroom from the students' perspective (in %), source (Spitzerová et al., 2023).

		2015/ 2016	2016/ 2017	2017/ 2018	2018/ 2019	2022/ 2023	2023/ 2024
Primary schools	Schools	4 115	4 140	4 155	4 172	4 261	4 276
	Classes	44 091	45 116	46 023	46 774	51 190	51 541
	Students	880 251	906 188	926 108	940 928	1 007 778	1 000 346
Secondary schools	Schools	1 304	1 307	1 308	1 290	1 294	1 304
	Classes	19 546	19 380	19 266	19 225	20 378	20 938
	Students	427 107	424 849	421 535	420 814	463 200	484 758

Table 3: Number of schools, classes, children, pupils and students in the education system of the Czech Republic by type of school, source (Czech Statistical Office, 2024).

Unpleasant interactions with the parents of underperforming students can exacerbate the situation. If teachers and school staff approach parents with criticism rather than attempting a constructive dialogue, it can lead to tensions and misunderstandings. Parents may feel attacked and, as a result, may be less willing to collaborate in finding solutions, which can negatively impact the support the child receives at home. Therefore, future teachers are introduced through the staging method to an often-dreaded situation, i.e. dealing with the student's parents.

Overall, family environment and educational practices have a major impact on students' school behaviour and success. Thus, it is essential for the teacher to communicate effectively and respectfully with parents so that together they can support student success.

3.1 Description of the scenario and evaluation of the implemented method by students

During the seminar, students compared the teaching method Case Study Solution and the Staging Method. The same problem situation was deliberately chosen, namely, 'teacher's negotiation with parents'. In the first case, it was a case study, where students were provided with a story, which they each studied and thought about possible solutions. The solutions were then presented to each other by the students in a jointly guided discussion.

In the second part of the lesson, students solved the same problem through the staging method. The teacher gave out the roles of the parent, the teacher and the other students watched the staging. To illustrate, the scenario was as below.

SITUATION 8: Discipline in the classroom
The role of the parents
<p>Christopher had just started secondary school and from the beginning he was accompanied by behavioural problems. At first impression he seems quiet, but he managed to win over his classmates who then "served" him. He often had conflicts with classmates who did not want to submit to him. He ignored his teachers and behaved in a purely purposeful manner. He was very quick to comment and put down teachers in front of the whole class. Christopher was above average intelligence. As parents, you are in frequent contact with the school. They would come in to complain about various teachers, their attitudes and practices. Father included the school with various suggestions as to what the school should change to help Christopher thrive better. Teachers agreed that Christopher was smart and handled the curriculum with ease. However, they also must consider his totally inappropriate behaviour, which lowers his grades by at least one grade. Thanks to a lot of pressure from his parents, Christopher has so far managed to get through to Year 2 'only' with a reprimand from his class teacher.</p> <p>A week ago, the situation in the classroom escalated. There was an incident in which Christopher grabbed a classmate's hand and cruelly broke a bone in the wrist of her left hand. Resistance arose not only from their parents, which culminated in a request to transfer Christopher to another class, and better yet – to another school.</p>

You're Christopher's parents, you've been invited to the school by the class teacher. You are fundamentally opposed to any solution proposed by the teacher: reassignment, discipline, ... you show no regret.

You argue: the field of education, which is in another school 50 km away, the intellect of Christopher, the girl certainly caused her own injuries, the school is to blame.

The role of the teacher

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What are you going to do? You invited Christopher's parents to school, you don't feel good about it, but you have to address the situation.

After the scenario/situation was played out, there was a discussion first on the role of the teacher. The student in the role of the teacher specifically stated, *"I was surprised at what the parents came up with. I thought that I would tell them how it is and what the options are for moving forward and we would reach a common solution. And I didn't expect what they came up with and how they would react. As a few things came up, I reacted badly. And it was complicated. If I had dealt with this situation in real school, I would have invited the teachers who were present at the incident."*

The students who played parents said, *"Our role was designed to be aggressive and to defend our child at all costs. We were ready to argue towards the end." ... "The teacher reacted well. And he tried to convince the parents of his truth, but by the end he was clueless and probably would have resorted to an argument."*

The other students in the role of spectators evaluated the situation negatively. According to them, the teacher was at a disadvantage because he was not present at the incident with the student: *"... As a result of the teacher not being present in the particular situation, it was all the worse for him."* The students agreed that the teacher should have taken a colleague *"...who was present at the situation to discuss with the parents and preferably to discuss together what situations may arise and what specifically I want to address with the parents. Maybe even the school psychologist should have been present."*

During the discussion, students were offered solutions by the teacher, such as:

- Assess criminal responsibility (Youth Responsibility Act).
- Consultation with the Police of the Czech Republic.
- Talk individually with Christopher about how he would handle the situation now.
- Talk to Christopher's parents. (Getting from a position of 'the school is fighting with you' to a position of 'the school wants to work with you to find a solution to this situation').
- Open a discussion with the pupils in the classroom about rights, violations and aggression.
- Recommend family therapy to parents.
- Recommend expulsion from school to the principal.
- Set up, support long-term cooperation with a school counsellor or an external psychologist.
- Create an agreement between a teacher, parents, school, or other stakeholders.

4 Discussion

We employed two different participatory methods: the case study and the staging method, as outlined in the previous article (Válek & Šmejkalová, 2024). In our case, the content was comparable. We know the opinions of the experts, so we asked the students themselves. We agreed with their opinion that each of these methods is activating, and we cannot say clearly which one is better. The first method, i.e. the case study, is described and students discuss the story given by the text. The second method, the staging or role-playing method, depends on the scenario played out and the actors themselves getting into the role. We agreed that the staging method provides more opportunities for discussion, is more attractive and more comparable to reality.

5 Conclusion

A staging situation simulating a lesson determines the level of learning, skills and social competences through their practical application to a concrete example. In this sense, it verifies:

- The level of theoretical knowledge necessary to deal with the relevant social reality
- The student's ability to integrate the theoretical knowledge acquired in the different study disciplines into a functional whole.
- The ability to apply knowledge from pedagogical and psychological disciplines.
- The level of the student's decision-making skills.

- The student's ability to search for optimal solutions within the framework of pedagogy, didactics.
- The student's ability to establish, maintain and terminate social contact with pupils, with parents.
- The student's ability to obtain relevant answers from pupils during the teaching to the control questions from the discussed material.
- The student's ability to maintain consistency in verbal and non-verbal communication.
- The student's ability to control himself/herself even in emotionally stressful situations, to implement assertive behaviour.
- The student's ability to anticipate the consequences of his/her decisions.
- The student's socially and legally acceptable attitudes towards health and environmental protection.

Participatory methods extend beyond the narrow confines of the school environment due to their relative fidelity in simulating the dynamics of social reality. In doing so, they also eliminate the encyclopaedic and subject-specific barriers to learning, fostering the development of the necessary skills and competencies. On the other hand, however, it is precisely this characteristic aspect that places increased demands on the professional competence of teachers, which usually exceeds their existing teaching qualifications. This is also the reason why the use of didactic tools is rejected by many teachers and why in many cases they continue to use the pedagogical methods that were current during their studies.

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