

## **Solving Educational Situations by Modelling as a Means of Pedagogical Skills Development**

### **Abstract:**

The article deals with a need to introduce complex preparation for solving educational situations at university faculties educating future teachers, social educationalists and educators. It defines the terminology of an educational situation and shows possibilities of how to solve educational situations in theory as well as in practice under university conditions both from the point of view of practical realisation and research into given problems.

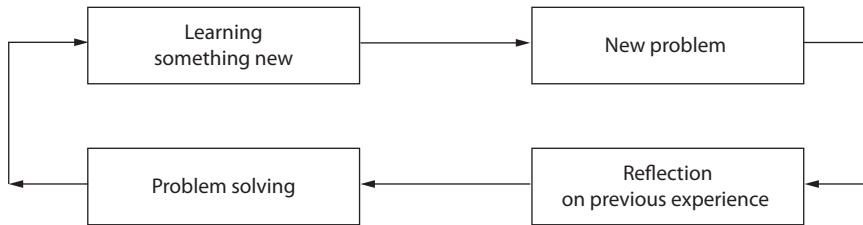
**Key words:** *educational situation, teachers' preparation, pedagogical competences, educational situations modelling, taxonomy, action research*

### **Introduction**

The profession of a teacher, a social educationalist or an educator ranks among the most sophisticated professions. A teacher thinking about his or her competence level, necessary for his/her profession, asks himself or herself the following questions as a rule: Am I ready to cope with all sorts of demanding, pedagogic, educational situations? And in general what is the educational situation? Have I built a "basis" of knowledge and skills for this? Am I in an optimum condition for revealing, understanding and solving such situations? (Fig. 1)

The teacher profession is a permanent process (Hope, 2002, Chudý, 2003) of solving still new and new educational problems, as well as a process of obtaining and maintaining pedagogical skills (Švec, 2000, 2002) and maintaining the teacher's pedagogical condition (Vyskočilová, 2000). Our study is based on social, psychological and pedagogical aspects.

Figure 1. Problem – solving and learning cycle (adapted from Hope, 2002)

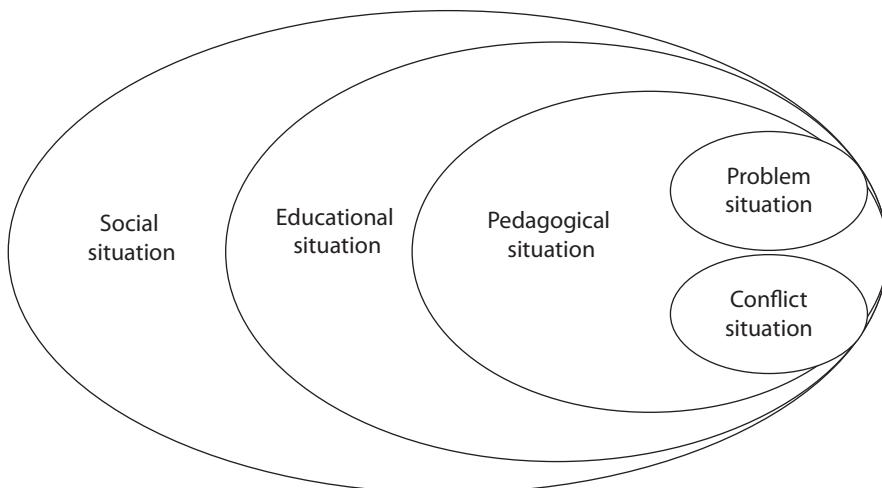


### **Educational Situation – Basic Terminology**

Realisation of a purposeful and systematic process of education and learning, with a stress upon progressive methods resulting in the social context in progress of the people being educated calls for a change in preparation of teachers, social pedagogues and educators. Owing to the fact that education is considered as a “mix” of different situations (Fig. 2) – social (Řezáč, 1997), pedagogical (Langová, 1982, Slavík, 1995), problem situations (Chalupa, 1973), and conflict situations (Křivohlavý, 1977), it can be said that problems of education from the situational point of view are the topic researched both from the pedagogical and psychological point of view.

An educational situation has all the attributes of a social situation, as well as the relation between the object and the subject of the situation, dynamics of the situation and interaction in the social area.

Figure 2. System of classification of different situations

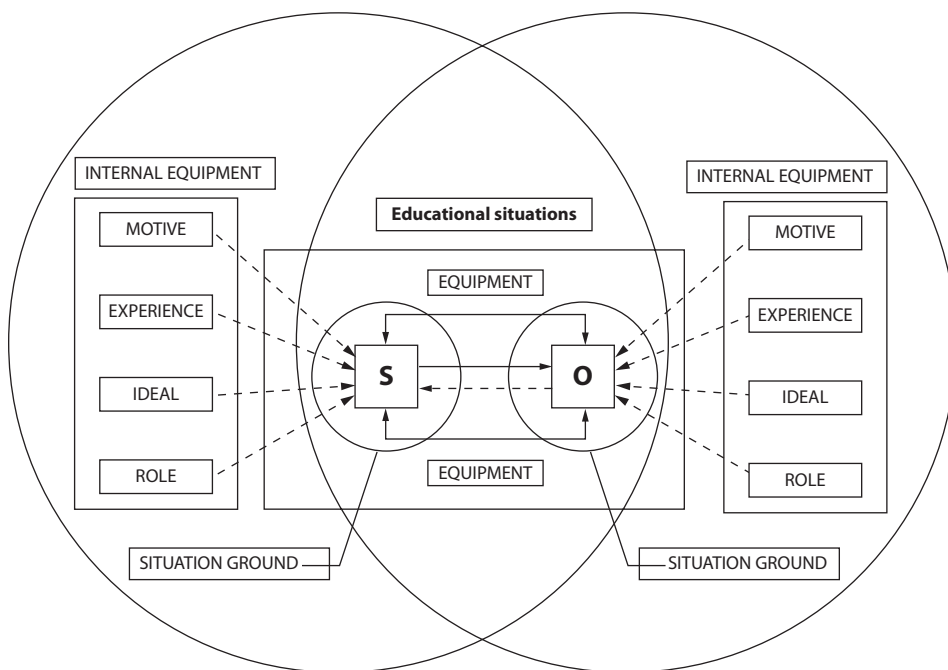


Under the term educational situation J. Řezáč (1998) means penetration of all environment conditions which motivate a student to an activity and supports changes both in the external and internal environment.

A situation as such has both the time and space relation. J. Maňák (1994) defines the educational (pedagogical) situation as a coincidence of external situations, time-limited, during which the student is exposed to concrete influences, upon which he or she reacts in a certain way. And just this fact that the student and the teacher are pulled into the situation results in an internal change. Thus, the external situation is internalised and the problem becomes an internal, lived-over relation to the surroundings.

In this case the **educational situation** means a complex of micro-social environment conditions, which motivate students to active participation (self-realisation) in compliance with educational aims (Fig. 3), supporting changes of the internal and external environment (Chudý, 2004).

**Figure 3. Structure of educational situation**



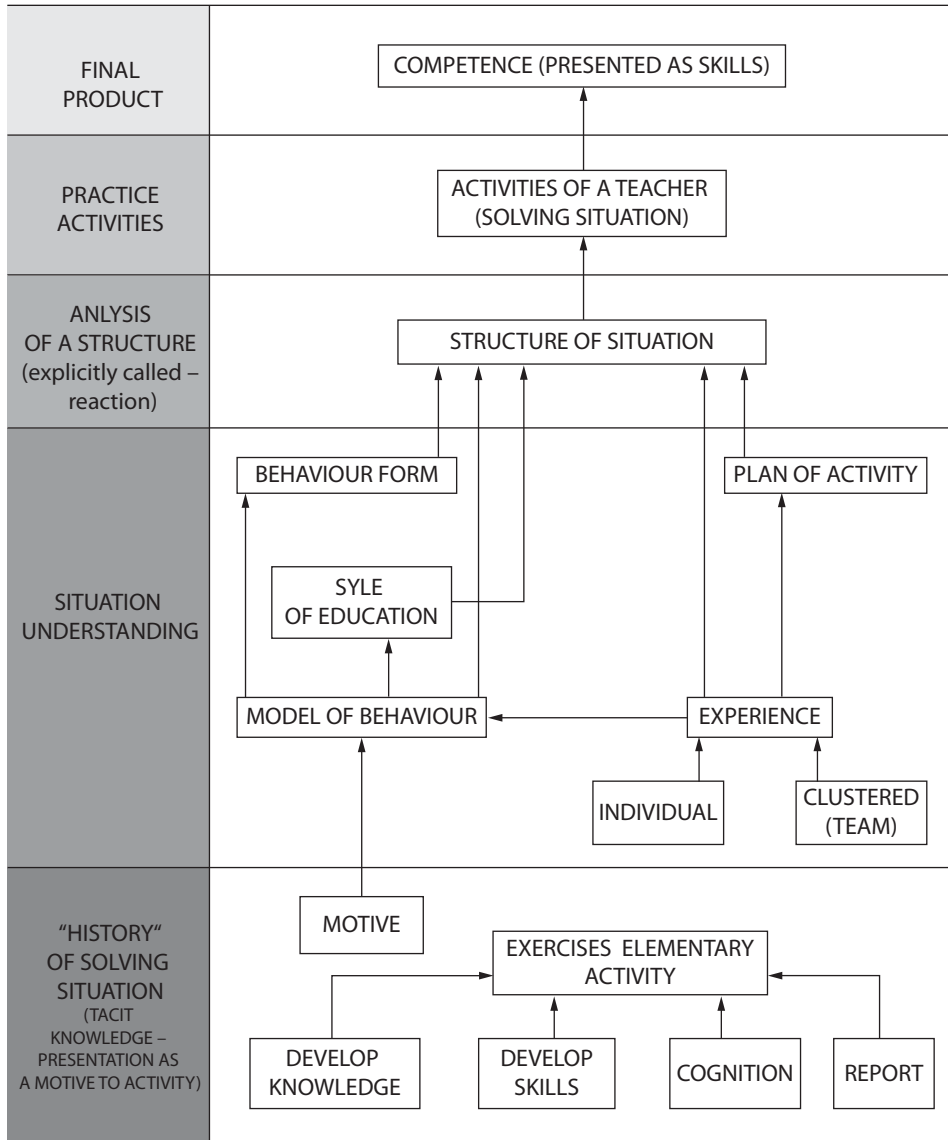
## **Teacher in Educational Situation and Pedagogical Condition**

Solving educational situations calls for the teacher's activity, good behaviour, tact and knowledge of his or her students. As B. Rotterová (1972) says, each problem has to be solved only after a proper analysis of the student's personality, the context in which the standard was broken and presumptions of a possible punishment and its expected results. V. Kačáni (1976) presents knowledge of the theory of thinking and problem solving as a basis for solving an arisen problem. Recognizing these bases has a positive influence upon the correct solution and internalization of the problem situation model. Good theoretical principles eliminate the danger of practicism.

The teacher's role in an educational situation comes out from the dominant position of educational aims. The teacher's whole activity is directed to fulfilling educational aims. The procedure of solving educational situations follows from the teacher's readiness level, both personal and educational one, to manage the educational process, to solve problems and not to do with a "conventional" solution, but on the contrary, to look for still new solutions which develop his or her personality and at the same time the student's personality. A certain possibility of how to eliminate a problem occurrence in an educational situation is to create a positive atmosphere which stimulates the student. Here an important role is played by the education style, which also influences interest and possibility of solving a situation. In connection with this we remind of, e.g., concepts of an inductive and sensitive style, aggressive, intentional, authoritative and democratic styles.

An important part of the teacher's, social pedagogue's or educator's outfit is also pedagogical condition development. Pedagogical condition means awakening and strengthening of the weaker part of the personal psychosomatics and preparation for a certain activity. Thus, the teacher does not solve a well-known situation, but he or she solves an unknown situation. For this reason we recommend that pedagogy students should look for the condition first, e.g. persistence in perception, insight into the situation and an attempt to solve the situation. At this stage the result is not important but it is the effort to solve the situation that is important. The condition development understood like this then changes the students' view of education. They do not consider education as a product or an aim, but as a way of reaching other higher aims and ideals. In their understanding education will be an open game of running a dialogue with themselves and others and recognizing the situation (Fig. 4) in which they are. This is the starting point in communicational skills development and solution of situations, preparation of situations, activity reflection, which are called decisive and psycho-didactic competences (Chudý, 2005).

**Figure 4. Solving educational situations as a method to development pedagogical skills**



When solving educational situations several methods can be used. Modelling, video-training of interaction in the class (Rašticová, 2004), micro-presentations and their analysis (Řezáč, Horká, Řehulka, 2000), role playing, creative dramatization (Karaffa, 2002), action research, a case study analysis and an analysis of pedagogical diaries of students' teaching lessons.

The next part of the article deals with solving educational situations by modelling as a method of educational work and method or pedagogical skills development.

**Educational situation modelling** is a way of pedagogy students' theoretical and practical preparation as well as teachers' further education. This means creating knowledge, practical skills and abilities to solve an educational situation, which has to reflect reality, i.e. it has happened and is visualised (Chudý, 2005, p. 57). Visualisation is based on looking for and discovering the reality structure. The final product is a model and only this has a form of schemes, figures, and case studies. A common feature has to be its functionality – i.e. it facilitates deeper recognition of reality, its structure and system links and rules. Thus, modelling is a method of solving tasks of a certain type, in our case educational situations, where the subject (situation) is modelled. The corresponding methodical plan, made by us, is prepared on the basis of an analogy with the original (situation that has happened, etc.) and it enables students to get a deeper insight into the structures of the original recognition and then students can understand it better, they can use it for their activity and obtain new information and skills.

Preparation of such a model situation has the following attributes:

1. *selection of a suitable situation taking reality into account*
2. *situation as a whole – obtaining and arrangement of information*
3. *defining the problem – for participants*
4. *building opinions in sub-groups*
5. *specification of teaching aims*

During the stage of preparation different criteria have to be taken into consideration. The criteria have been summed up in items:

- aims definition
- importance of suitable information
- work with information
- searching for suitable variants
- increasing participants' understanding
- defining the target group

- what is the target group – simple sociometry, group climate
- group, individual decision-making
- number of stages of the model situation
- is an observer necessary?
- time structure – what time is devoted to preparation, realisation and evaluation

After careful preparation and meeting the required criteria the realisation follows, consisting of several stages.

Stages of model educational situation

**a) task specification and the first decision**

- the task can be specified in different forms: telephone call, a newspaper report, a dialogue with a colleague, part of a book, etc.
- it is important to prepare questions (e.g.: what do you say on the phone when ...)
- decisions are taken down on paper and are handed over to the lecturer
- summing up of the decision in a form of a motto

The purpose of this stage is to familiarize with the situation and to give roles to persons.

**b) information collection**

Due to the fact that information has not been presented in a sufficiently specified time period necessary for qualified decision-making, the participants have time for questions. The optimum time limit is 15 minutes.

**c) the second decision**

When the specified time limit is over, the lecturer stops giving information and asks the participants to present the second decision. In this decision, contrary to the first one, participants suggest concrete decisions to the whole case. E.g.: what suggestion, recommendation as a class teacher do you present to the headmaster (parents). The lecturer's procedure is identical with that of the first decision-making process. The answers are summed up in a form of mottos.

**d) evaluation of information collection and analysis of decisions**

this stage includes the following tasks:

- observers' reporting (if appointed), answers to questions which they got at the beginning. The reality of the participants' results is evaluated together with the overall presentation, quality and quantity of information and its influence upon decision-making and results

- discussion on the observers' report – must be opened immediately after the report and all participants must have a possibility to express themselves: the lecturer, participants, observers. The discussion has to be concentrated especially on information collection and its interpretation
- analysis of the first decision-making process – the lecturer and the participants analyse the positives and negatives and make a short analysis. E.g.: as a class teacher you had more possibilities of how to solve the situation. Give advantages and disadvantages of the possibilities
- analysis of the second decision-making process – what was the reason why you chose this specific solution and what result do you expect? This should be the opening question to the analysis of the second decision-making process.
- the incident case – most participants will find out that the suggested solutions cannot solve the whole problem, and that also the so-called partial solutions exist and that they would suggest completely different solutions.

In the end we recommend that the task should be presented to the participants once again, but this time in its full version. The result can be that no one suggests a solution that has been made in reality, everybody suggests the made solution, new solutions are found.

#### e) pedagogical conclusions

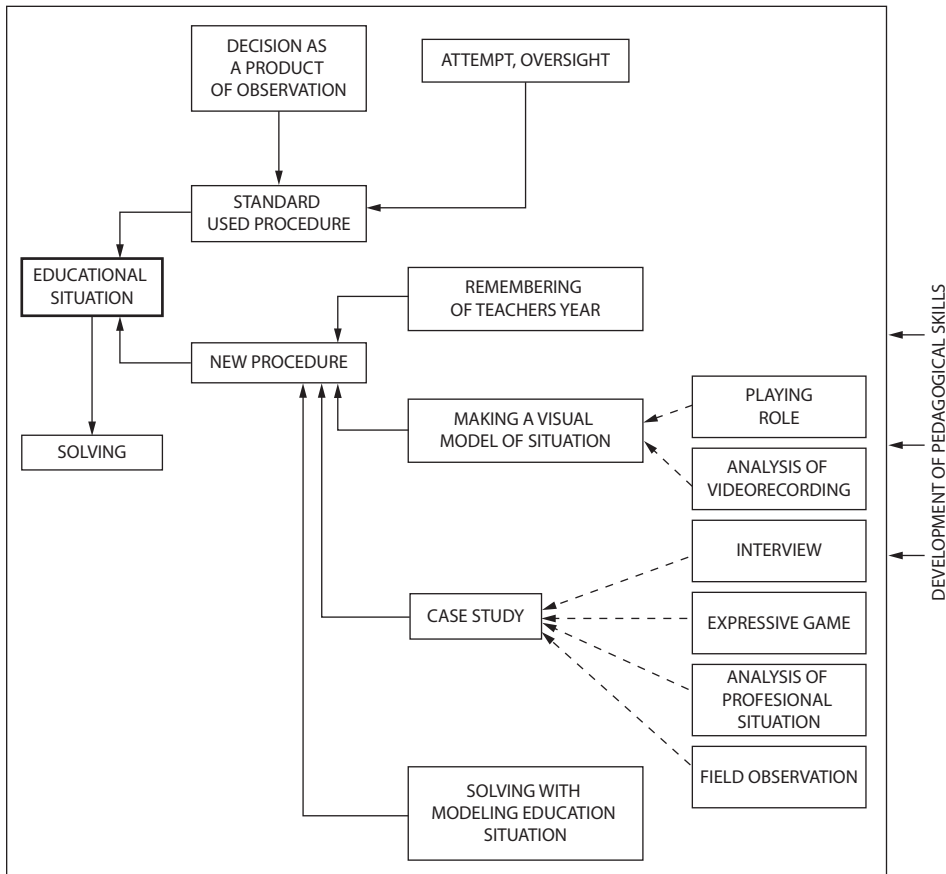
In conclusion we recommend a dialogue (a suitable method is a plenary discussion in groups) about the importance of a concrete model situation for participants, for practice, how to prevent undesirable patho-psychological phenomena, how to prevent a breach of human rights...

### **What methods to use? Traditional or new ones?**

One of the results of our research activities (presented in the final report to the Grant No. 406/02/1247 – Grant Agency of the Czech Republic – “Tacit Pedagogical Knowledge and Possibilities of Self-regulation Process and Its Development) is of a methodological character and it includes an answer to the question: What methods can be used in communicational and pedagogical skills development? The answer is presented in Fig. 5.



Figure 5. Methods of solving educational situations



## Conclusion

This article presents a new educational programme of solving educational situations as a programme for communication development, for “survival” in the contemporary, changing world and society. The author presents a methodical and methodological character of educational situations solution. The results of research activities are part of the results of the Grant “Tacit Pedagogical Knowledge and Possibilities of Self-regulation Process and Its Development”.

Solving educational situations is not a very popular topic of research activities because all aspects change continuously with changes in society and thus they are of a dynamic nature.

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