

Analyses of teachers' problems in the European context

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The article introduces Socrates Comenius project Prosolva which is focused on teachers' difficulties and on the developing of teachers' problem solving competences. The aim of this contribution is to present results of the first project step during which all participating countries did analyses of teachers' problems that occur at secondary schools.

Key words: Prosolva project, problem definition, teacher, teachers' problems, educational problems

INTRODUCTION

In history and also in presence the role and importance of the school and education is understood in many different ways. We could mention just shortly in the beginning of this contribution two conception. J. A. Comenius (1592-1670) in his final work *De rerum humanarum emendatione consulta catholica* saw the school as a place of human cultivation, that could prevent word conflicts and restore harmony and peace. He put the *Pampeadia* (education) in the middle of his project. On question "Who is teacher?" Comenius answers: "he si pansofical teacher, who can educate all people everything, what leads human nature to perfection, to let all people become excellent." (Komenský 1992, translation J: V.) In contemporary discussion we could face many opinions which put the role of the school into sidetrack and speak for example about "school free society" (Illich 2001). The postmodernist relativism, weakening of traditional authorities and the new means which enable students to gain information independently (Internet, Wikipedia etc.) influence learning process probably in all countries and at all school levels. Who is the teacher in these days?

We would like to balance all forces and together with contemporary educational theories to support independent, self-reflective teachers and to re-define their role as a facilitators, counsellors and self-aware persons. Our endeavour springs from the fact that mostly it is the teacher through whom any positive changes and improvements in instructions and school system are made.

Teachers have to deal with many different kind of difficulties or problems that are connected with many different professional and personal situations. There is willingness to support this important link of educational chain. It is the reason why European project "Prosolva" (Socrates Comenius 2.1) was started. 18 participants from 8 European countries are involved in the Prosolva project. The main aim of the

project is to support the development of efficient methods for teachers to solve theirs problems at school, methods which would give the possibility for the teachers to develop life-long learning skills. The project is intended for all teachers, teachers' counsellors and teacher trainers at secondary education. Activities are undertaken and developed within a framework of an action research developed by teacher trainers and teachers from secondary schools. Activities will include developing, collecting, comparison, testing the efficiency, adapting, evaluating and disseminating problems solving methods at school.

The project will lead to the creation of a European training about the teacher problem solving approaches offered to teachers, teachers counsellors and teacher trainers, a toolbox of problem solving approaches (for teacher and teacher trainers) presented through a CD-rom and a WEB site and a handbook of scientific publications presenting the results of the action research.

Between main objectives of Prosolva project are to gain overview of different problem solving approaches, to compare and analyse their possibilities and adaptations to school environments and to create tools for teachers and teacher trainers to become more efficient in problem solving. During the first stage of Prosolva project participants had to collect and evaluate teachers problems in each country. The goal of this article is to summarize results of the first stage in project countries. In the next stage of the project the action research will start. Chosen problem solving methods will be introduced in schools, used and adapted.

Teachers' problems

In general, a problem "is a mental obstacle which makes impossible the achieving a goal/objective/purpose. ...Usually, the nature of a problem is such that an answer or solution is needed" (Wikipedia 2006). The problem could be also defined as deflection of present state from optimum. The problem solving is "cognitive process directed at finding solutions to well-defined problems." (Colman 2003) During problem solving the deflection can be removed in two ways – the goal is redefined to be in accordance with the optimum or the goal is achieved. For this process it is typical that some effort is expended to overcome obstacles and inner or/and outer conditions are to be changed. In terms of theories the-

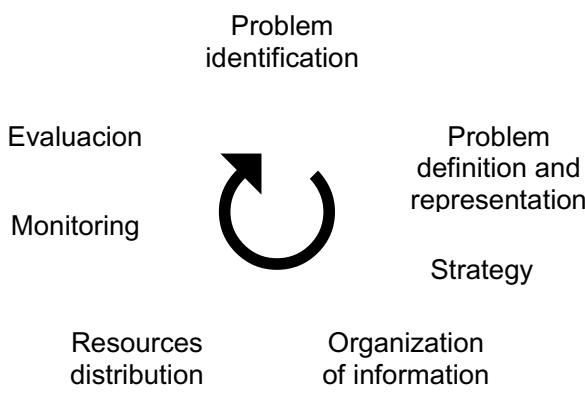
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re are two types of problems – well-defined and ill-defined. The well-defined is “any problem in which the initial state or starting position, the allowable operations, and the goal state are clearly specified, and a unique solution can be shown to exist”. (Colman 2003) In the opposite ill-defined is not clearly specified or a unique solution cannot be shown to exist. In education most problems belong to the second one.

In many fields of research (in informational science, communication, psychology or cognitive science) there is effort to describe the process of problem solving. For example Sternberg (2002, p. 387) defines 7-step solving cycle.

Chart 1 – Problem solving cycle (after Sternberg2002)



Firstly there is problem identification. In this step goals are set and obstacles recognized. At the second step the problem itself and its representation is defined. This phase is cardinal because when the definition is not precise enough the solution will be hardly found. In this place questions like "What is the problem?", "When and where does the problem occur?", "Whose is the problem?" are asked. The third step – strategy – leads to plan the way to solution. Strategy consists of the analyse and the synthesis, convergent and divergent kind of thinking. No universal "ready made" strategy which could be used for all kind of difficulties exists. The forth step is called organization of information and its purpose is not to gain knew information but to sort them and to create a helpful tool. The fifth step – recourses distribution – makes clear what kind and what amount of resources as time, equipment, money, space etc. are available. Global and partial planning comes in the progress in this level. The last two steps (monitoring and evaluation) aim just to the solving action. This article woks out more over data from the first or second step of this cycle.

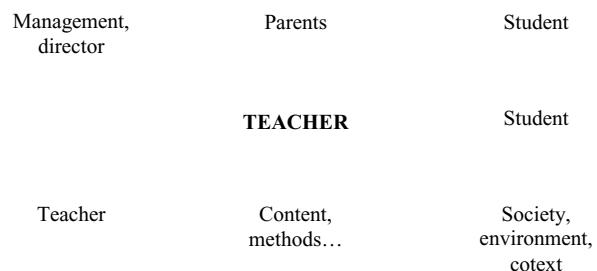
Sometime we use the term educational problem. That means any obstacle in organised learning process mostly in school environment. This term is really broad and we could count to it all parts of school system. In the Prosolva project we deal with teacher' problems. These are difficulties recognised by teachers – the role of recognition or problem-awareness is crucial even if it differs between individuals and countries.

There are some attempts to categorize educational problems. In fact in relevant literature there are often just some specific problem-areas of educational reality discussed. The complexity of school system is than reduced to few topics

like problematic students (Auger, Boucharat 2005), discipline problems (Kyriacou 2005) or material or socio-economical difficulties. In the contrary to this simplified "one end" approach (problem is outside the teacher, a problem is equal for example with a student) we would like to underline systematic view. During Prosvolva project all important actors and context (teachers, teacher trainers, students, school management, parents, school politics...) are taken in consideration. Teachers' responsibility is the beginning from that motivation to personal improvement turns on. We intend to support the development of broad range of problem solving competences in order to avoid simplifications, to establish good ground for solving of any difficulty and to make international exchange easy and useful. This is in accordance with contemporary educational theories (Hsu 2004, Jasper and Taube 2004).

During team discussion in Malaga (Spain) the project partners presented and compared national teachers' problems. We found many similarities and agreed that it is necessary to deal more holistic rather than just specifically according to partial difficulties. The next picture shows a mind map of the field of educational problems.

Chart 2 – Classification of problems related to teachers and teachers' practice



METHODS AND DISCUSSION

During the first period of the Prosolva project all participants analysed teachers' problems connected with teaching practice and school environment. There were different research strategies used, both quantitative and qualitative. We didn't make the survey just with one common research instrument. Some participants shared one questionnaire that was translated and adjusted to national conditions. The target group included teachers of secondary schools, teachers of further education, teacher trainers, students of secondary educational level and future teachers from preparative courses. From this point of view it is difficult to find general and quantitative conclusions but we tried out to generalize from national problems few common denominators. Country descriptions than follow are also available on project web site.

Poland*

In the teacher's opinion poll/questionnaire organized at the end of October 2005 in two general secondary schools in Olsztyn the teachers were asked to choose three most problematic areas connected with their job from the following:

* Description after Prosolva project internet page, data processed by K. Wiśniewski

Students' personality
 Didactical process
 Methodology of teaching,
 School management,
 Teachers' education and qualifications,
 Teachers' personality,
 Teachers' health,
 Teachers' competence (intellectual, communicative, emotional, moral),
 Teachers' professional motivation,
 Teachers' exhaustion due to job routine,
 Assessment of school system reform,
 Teachers' burning out,
 Personal relations between teachers, m/ relations between a teacher and the management,
 Relations between teachers and parents,
 None of these (give your own specification)

The results and conclusions of the survey are included in this Power Point presentation delivered during the first official Prosolva meeting in Malaga, Spain.

Bulgaria*
 In Bulgaria an inquiry was held among 96 teachers from two vocational schools, including 11 teacher students who had just finished their teaching practice. The questionnaire, tested in Poland before the Malaga meeting, was used. The main problematic spheres in which the teachers meet difficulties are as follows

Problems related to the pupil's personality (62%). The teachers point out a number of concrete problems related to the pupil's personality:

The pupils are lowly motivated with respect to the acquiring of knowledge and skills, as a result of being uncertain about their future professional success

The pupils have totally different values from each other as a result of the aggravating differences within the families (moral, social, intellectual, financial...)

Considerable gaps in the training and the education in the primary school (some are resulting from not very good teaching practice, and others, from insufficient interaction with parents, school, extra-school organizations, etc.)

The pupils do not pay enough attention to the school rules and norms of behaviour, and in some cases they do not regard the moral and legal standards of society

The pupils demand and get used to compromises

Disrespect of teachers on part of the pupils

The pupils are apathetic, not willing to take responsibility, and rude in their interrelations

Problems connected with the school reform (48%). The concrete problems, pointed out by the teachers, are as follows:

The reforms are often rash and ill-considered, and they are being introduced without taking into consideration the results from previous changes

Constantly changing school plans and programs

Lack of adequate schoolbooks and school aids

The new textbooks are written in complex style and are non-

understandable to pupils
 Problems with the clear formulation of the educational goals on all levels
 Lack of standard evaluation criteria
 Unspecified law provisions in the secondary and higher education and the relation between them.

Professional motivation of the teachers. Concrete problems:

Lack of sufficient visual and technical aids for training
 Low personal authority, low social status of the teachers
 Exhaustion of the teachers as a result of their routine work. This is connected with fatigue, loss of motivation, and desperation as result of the inadequate and systematic changes in the education sphere

Out-of-date equipment and facilities for practical training
 Insufficient stimuli of the motivation regarding the improvement of the qualification

The system for qualification offers courses that are to a great extent theoretical

Loss of motivation as result of the everyday problems with pupils (connected more often with their behaviour)

Insufficient opportunities for the improvement of the teaching skills – need for more contacts, specialized literature, thematic courses, seminars, work meetings, etc

Lack of financial resources for full demonstration of the teachers' pedagogical skills

Unspecified law provisions in the secondary and higher education and the relation between them.

Low motivation of students ; the number of secondary is the same but the population goes down. Each school will take any pupils without selection.

The number of pupils per class (30), the pupils are skipping lessons

The status of teacher: usually not only teachers but many more activities (library management,)

The Czech Republic*

In this country the exploration was split into two steps. During the first phase one Prosolva representative at Secondary vocational school in Poděbrady created a questionnaire and distributed it among colleagues. This was considered as pilot study which gave us basic insight. During the second step new research tool was finished. It contained both open and closed questions. 50 teachers from 8 secondary vocational schools responded. The sample included both teachers of theoretical and vocational subject.

Respondents were asked to write down the most frequent problems which they face during their daily work at schools. This demand was repeated three times – firstly for problems related to content and educational methods, secondly for problems related to students. The third part was open for all other types of problems that could appear at school or school context. We were also interested in what helps teachers to solve a problem (not what special tool or method, but what kind of informational source or strategy).

Most frequent pedagogical problems are summarised in the next table:

* Description after Prosolva project internet page, data processed by T. Georgieva

* Description after Prosolva project internet page, data processed by J. Votava

Table 1: The most frequent problems in The Czech Republic (C&M – Problems connected with content and methods, S – Problems connected with students, All – all choices)

TYPES OF PROBLEMS	C&M	S	All
Students' lack of motivation	3	29	32
A lot of subject matter, little time	21	3	24
Lack of text books, insufficient textbooks	13	1	14
Students don't understand subject matter	-	9	9
Lack of cooperation (between students, between students and teacher)	-	9	9
Students are not able to transform what they learned to other situations	-	8	8
Poor students' preparation for instruction	-	8	8
Students don't do homework	-	7	7
High number of students per classroom	-	5	5
Material equipment	3	2	5
Teachers' difficulties to use alternative methods	5	-	5
Poor level of knowledge from basic school	1	4	5

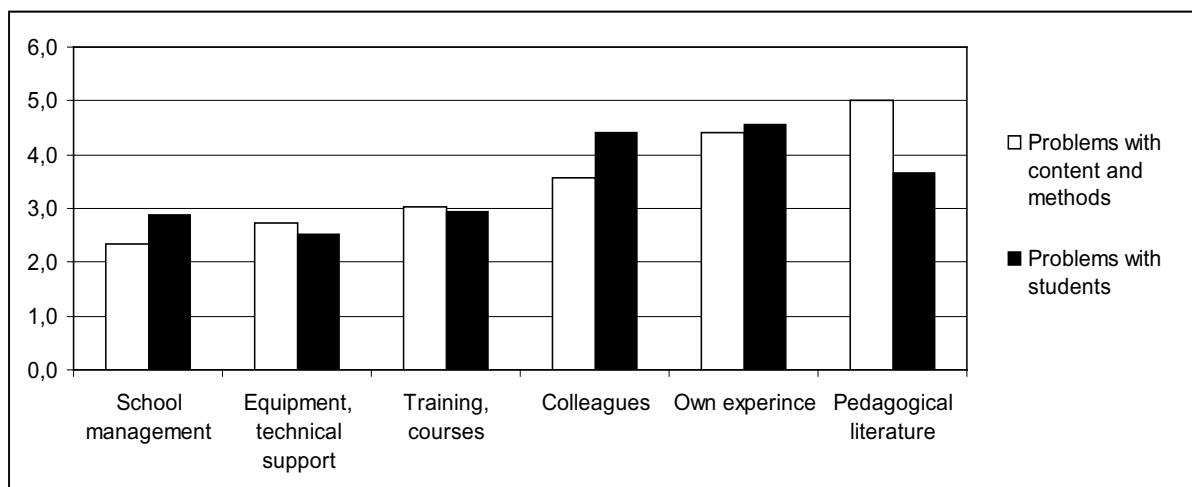


Fig. 1: What helps teachers to solve problems related with content/methods or with students?

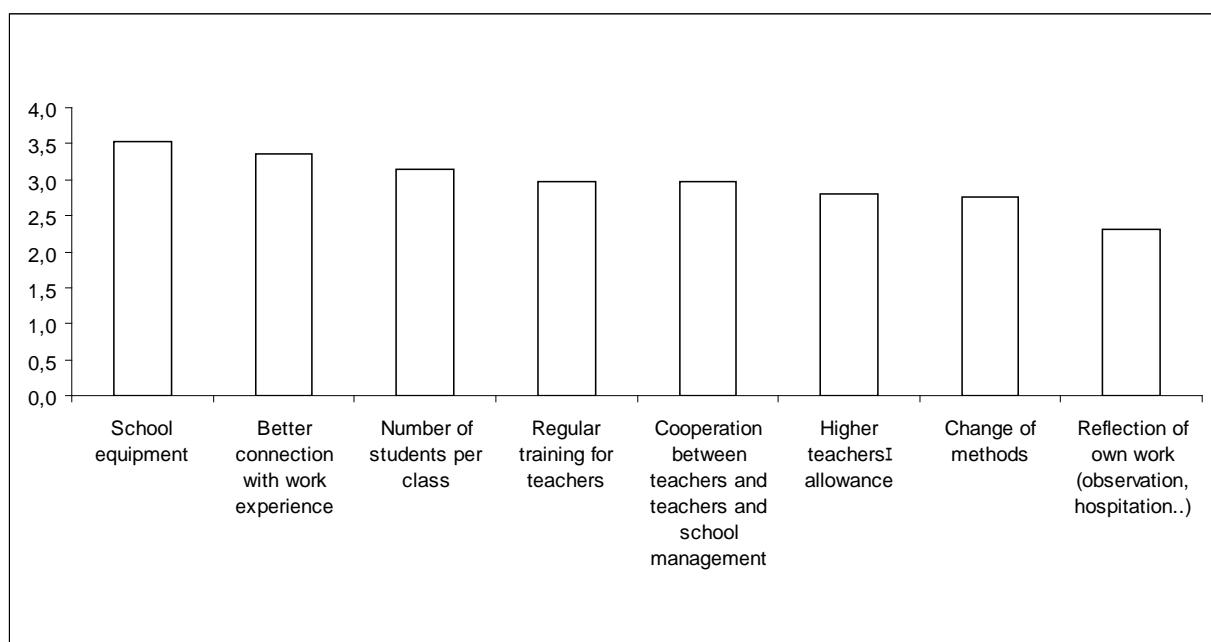


Fig. 2: What has to be changed in school?

Chart 1 shows the answers to the question "Point out what or who helps you in most cases to solve difficulties you listed above". There were six possibilities, respondents had to order them on scale between 6 (this helps me most frequently) to 1 (this helps me really seldom).

In the Chart 1 there are answers divided according two groups of problems – problems with content and methods and problems with students. It is clear that the Czech teachers prefer own experience when they solve pedagogical problems in general. When dealing with didactical problems, they also attend to pedagogical literature (books, articles, methodical texts), in case of students' problems the second source of help comes from colleagues. The school management and the technical support help relatively less often.

The Czech survey was finished with the question "What changes (in your opinion) have to be done in order problems you listed were solved?" Respondents had seven suggestions like "To enhance teachers' payment" or "To lower number of students per class", they could rate them in scale between 4 (=it will really help) and 1 (= no, it will not be good for solving problems). Results are presented in Chart 2.

There is visible disparity between Chart 1 and Chart 2. Teachers tend to rely on their own experience (or common sense), their colleagues or pedagogical literature when solving difficulties. In contrary they are not ready to change own way of teaching (methods) or to get better look at own practice (reflection of own work) but the solution is found in material background or school organization and politics (number of school per class). That leads to pre-conclusion that the teachers declare the outer change as easier than inner (personal) change. Czech teachers (all of them from vocational secondary schools) also stressed that the school instruction has to be connected with work experience.

France*

In France the survey was based on the questionnaire constructed by Polish team. The data collection and processing was led by Lycée d'Enseignement Général et des Techniques Agricoles de Saint Génis Laval (General and agricultural technical training school of Saint Génis Laval). 25 teachers were asked and 18 of them answered. The most important answers (from the most important to the least) were:

- Relational problems with the students: unrespectable behaviour of the students (absenteeism, delay, chattering, inattention), often linked with personal or family problems; lack of motivation; lack of work, lack of efforts

- The training program: not enough detailed, too important, too ambitious, shifted with the level of the students; the lack of multi-disciplinarity; too often modified

- Lack of professional recognition: from the students, from the parents, from the society (picture of a person who works a few and has a lot of holidays); lack of feedback about their efficiency

- Lack of in service training: new problem linked with the budget decreasing of the minister

- Bad work conditions: lack of material tools to make work with students in the class, to make outdoor activities;

lack of tools and offices for the teachers who can't prepare their courses in the school.

- Students evaluation: the evaluation takes too much time (to correct the copies, a lot of administrative work for the continuous evaluation); difficulties for the new teachers to evaluate the level of the students (which level have we to reach?).

It's important to remark that the teachers don't think to have neither relation difficulties with the students, nor pedagogical problems which can surprise.

Spain*

In Spain the survey was made by Instituto de Investigación y Formación Agraria, Pesquera y Producción Ecológica (Research and training institute on agriculture, food processing and fisheries) and local secondary schools. Main problems that were found in different institutions were divided in these categories:

1º Ideological and/or scientific

- 1.1 Different pedagogic options (among the teachers)
- 1.2 Different ideological options (political, social, etc.)
- 1.3 Different organizational options.

2º In the relation with the power (President of Institutions, Staff, Government, etc)

- 2.1 Bad organization control
- 2.2 Slow personal and professional promotion
- 2.3 The teachers don't have sufficient access to resources
- 2.4 The teachers want to take decisions but they cannot

3º In relation with our structure.

- 3.1 Aims and functions ambiguity
- 3.2 Weakness in the institutions

4º In relation with personal and labour questions:

- 4.1 Small self-esteem
- 4.2 Insecurity in their works (Mostly of them have temporal contract)
- 4.3 Dissatisfaction in class.
- 4.4 Deficient or unequal communications.

Norway**

In Norway problems were analysed at a secondary agricultural school in Vale. Teachers said they would like to talk about challenges better than to talk about problems. Speaking about problems could influence future with a negative mind. When we talk about all our challenges, at once it will be much more offensive and positive. Teachers listed next challenges:

Challenge no. 1. There are all kinds of students at upper secondary schools. In Norway all youngsters have, by law, a right to go to the upper secondary school for three years. Whatever they do or don't do in the school, nobody can take that right from them.

Because of this school-right and an economic life that will not or cannot give place for an uneducated 16 year old

* Description after Prosolva project internet page, data processed by F. Oliva García

** Description after Prosolva project internet page, data processed by O. Nökleby

* Description after Prosolva project internet page, data processed by J. Salesse

boy or girl, we find nearly 99% of all Norwegian people aged from 16 to 19 years in the upper secondary school. It is the greatest challenge for the school, and for the teachers: How to make all these different groups of youngsters interested in school-work – and how to give them all benefit of the school year? In the school teachers find:

- Theoretical interested youngsters
- Practical interested youngsters
- Youngsters without any interest for schoolwork at all
- Youngsters with physical problems
- Youngsters with psychological problems
- Youngsters with social problems
- Youngsters with parents who take care of them
- Youngsters who have to take care of their parents
- Etc.

Teachers know that different persons learn in different ways. Some of them make the best learning when they are listening. Others prefer to read, write, do things, and cooperate with others. And all of us have the best learning-process when we are active – and use different sides of ourselves during the learning. How to create methods that may meet the different ways of learning in a good way?

Challenge no. 2. Young people are active people

All youngsters are active persons. Some are more active than others. In a traditional school-situation, where the teacher is very active, and tries to give knowledge to the students, the students natural need of activity may become a very big problem for the teacher (and so it has been as long as we have had schools). What methods Norwegian teachers use in school in order to:

- To take advantage of the natural activity of the students?
- Make this natural activity a benefit for the students and for the teacher?

Learning is a process inside the student. The teacher is like a catalyst – helping to keep the process within the student running. In this process the teacher and the student have to cooperate. If they are antagonists, no one of them will succeed.

Challenge no. 3. Students have to learn to become responsible for their own learning. How can the school/the teacher give the students a real opportunity to take responsibility for their own learning? What frames do we have to give the students in a self-responsible system? (We have to be sure that the students take the responsibility the school gives them.)

The teacher is responsible for the students' responsibility!! (The teacher has to facilitate the students learning of responsibility - to give them frames that force them to work, and force them to use the teacher as a supervisor /coach.) The students will have to play a more active role than in the traditional school. The teacher will have less control over everything the student's do – than in the traditional school. To a greater extent he will become a supervisor, a coacher for the students. In lesser degree he will be expected to held traditional lectures.

Challenge no. 4 – the school and the real life. The primal goal for the school is to prepare the youngsters for the

real life. What is the real life like? What is the school like? How shall the school reach this primal goal? Do we have to change the school; do we have to change the youngsters? Do we have to change both of them?

Challenge no. 5. The agricultural school and the school-farm. Most agricultural schools have their own school-farm. What shall we do to use the school-farm (the practical part of the agricultural school) optimal – in all items?

- The school-farm used in learning languages
- The school-farm used in learning mathematics
- The school-farm used in learning natural science
- The school-farm used in the work for disabled

How to create interdisciplinary methods – practical/theoretical items?

As final resume the teachers have a lack of motivation because most of them think the actual system is not permanent, there are a lot of the system changes that are often very quick.

CONCLUSIONS AND RECOMMENDATIONS

The wish of the author was not to combine all country descriptions and to meet few simple conclusions. It is clear that all reports above show some kind of similarity. Problem classification is in correspondence with the Chart 2. Every country declared some specificity. In many cases the school polices and reforms have strong influence on teachers' perception (for example new curricula in The Czech Republic and Bulgaria). Other strong theme is organisation and management (Spain, France) or the statute of teachers.

Teachers' problems – as we mentioned before – are ill-structured, multidimensional, subjective and still in progress. The school system has to balance many pressures and demands. What is the role of a teacher? In which ways he or she can take a part of its improvement? Analyses of teachers' problems were chosen just as the beginning of Prosolva project. The next steps are these: to suggest appropriate problem solving methods, to create functional strategy for their introduction in schools and to adapt them with respect of specific problems and context.

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