

# Supervision and Professional Development in In-Service Teacher Training Regarding Sexuality Education

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## **Abstract**

*This research describes the contributions for teachers' professional development of two different in-service teacher training modalities, a Workshop and a Training Course, involving, respectively, eight (n=128) and seven (n=130) different classes, whose principal aim was to prepare teachers to carry out action-oriented sexuality education projects in their schools. The content analysis of materials produced during the in-service teacher training, complemented with a semi-structured individual interview, and observation, associated with a focus-group interview were selected as research techniques for the triangulation of data. Principal results showed some differences in teachers' professional development who attended these different training modalities. A larger number of teachers who attended the Workshop than those involved in the Training Course, developed reflexive actions which led to positive changes in their methodological approaches of sexuality education and increased more student participation. This article concludes by discussing the influence of these results with regards to the selection of the modality of in-service teacher training when personal and professional development is intended.*

**Keywords:** *supervision, professional development, sexuality education, in-service teacher training*

## **Introduction**

### ***Professional development and supervision in in-service teacher training***

Professional and social demands related to the educational system faced daily by teachers, the complexity of school and classroom environments, especially the interactions with

students, parents, other teachers and school boards and the different forms of professional development and teacher identity, lead teachers to choose different practices in their classrooms and different modalities of in-service teacher training.

Sachs (2009) argues that Continuing Professional Development (CPD) to ensure the goals of both improving student learning and support a strong and autonomous teaching profession, needs to incorporate four existing approaches: 're-instrumentation', 'remodelling', 'revitalization' and 're-imagination'. The 'CPD as re-instrumentation' places emphasis on the technical approach of the trainer and the trainee teacher, where relevance and the immediate application of the trainee's knowledge is the main objective and can empirically generate and validate the relationship between teacher efficacy and student learning. In the same traditional approach focused on knowledge transfer, the 'CPD as remodelling' enhances a practical approach to teaching, but is more concerned about changing existing practices, and more focused on increasing content and pedagogical knowledge.

In Sachs' view (2009) the 'CPD as revitalization' is active, challenging, and involves students in the learning activity. It focuses mainly on teachers' learning in a transformative vision, particularly in their professional renovation, through opportunities to review their practices and, in so doing, to become reflexive practitioners. Finally, Sachs (2009) defends 'CPD as re-imagination', whose main objective is to transform the intentions and practices of teachers and equip them, either individually or collectively, to act as trainers, promoters and knowledgeable critics of reforms.

This latter modality of transformative and emancipatory CPD, limited to teachers' pedagogical practices, presupposes supervision as a theory and practice of regulation of the processes of teaching and learning where supervisors, teachers and students are partners in the learning and in the transformation of conditions to attain quality education (Vieira 2006, 2009). According to Vieira (2006), the theory and practice behind this model of supervision are based on the interaction of the personal, public and shared contexts of theoretical and practical knowledge; in the personal and social construction of theoretical and practical knowledge; in the transformative and emancipatory orientation of school training and pedagogy; and in the values of a democratic society: freedom and social responsibility.

In Portugal, although a variety of supervision models co-exist in practice, there are some that deserve greater attention due to their historic contribution and others by relying on the current social-constructivist perspectives that privilege the formative and reflective roles of supervision (Alarcão 2003; Alarcão and Tavares 2007, Moreira 2006; Sá-Chaves 2002, Vieira 2006).

Within this framework, the discussion of the role of reflection in teacher learning becomes imperative. According to Korthagen (2004, 2009, 2010) and Kelchtermans (2009), teachers' reflections should include the moral, emotional and political dimensions of teaching (broad

reflection) as well as the beliefs, self-representation of teachers and teaching in general (deep reflection). Reflection helps teachers to be aware of their professional and personal aspects from an integrated perspective (Korthagen and Vasalos 2005). Korthagen (2004) also argues that for a long time, attention was given to rational and conscious resources of behaviour, leaving aside the human dimension of education. In this sense, Korthagen (2009) highlights the importance of teachers being aware of their identity as teachers, their personal mission and their relationship regarding their professional behaviour. To this end, Korthagen (2004, 2009) proposes the 'onion model' that includes six levels or layers of reflection: 1) environment, for example, a particular class or student; 2) pedagogical behaviour; 3) competencies; 4) underlying beliefs; 5) identity, which means, relationships in the way we see our own professional or personnel identity; and 6) our mission as teachers (level of spirituality) and transpersonal levels which refer to the inspiration of teachers, their ideals and their moral purposes. The author argues that an in-dept reflection (from the 4<sup>th</sup> level) implies that the 'teacher transposes' the comfort zone, which is familiar and safe, and takes risks in the sense of true professional development (Korthagen 2009).

In this remarkable evolution of the focus of training and professional teacher development, teacher supervision "extended to the ambit of in-service teacher training in the workplace [...] and gained collaborative, self-reflexive and self-formative dimensions, while teachers began gaining confidence in the relevance of their professional knowledge and ability to make their voices heard as researchers of their own practices and builders of specific knowledge inherent in their social function" (Alarcão and Tavares 2008, 15). In this context, supervision can take a more formal style for being vertical (supervisor - teacher), an informal style for being collaborative, also called peer or horizontal, and an intrapersonal style when self-supervision (self-monitoring) occurs (Alarcão and Tavares 2008).

### ***In-service teacher training and sexuality education in portugal***

Today in Portugal, the training for kindergarten teachers and teachers of the 1<sup>st</sup> (1<sup>st</sup> to 4<sup>th</sup> grades), 2<sup>nd</sup> (5<sup>th</sup> to 6<sup>th</sup> grades) and 3<sup>rd</sup> (7<sup>th</sup> to 9<sup>th</sup> grades) cycles of basic education and secondary education (10<sup>th</sup> to 12<sup>th</sup> grades) includes pre-service, specialized and in-service training (Decreto-Lei n° 15/2007, 19 de Janeiro). According to the Scientific and Pedagogical Council of In-Service Teacher Training, training modalities are divided into two groups: training focused on content (courses, modules and seminars) and on school contexts and professional practices (study circles, workshops training, projects and internships).

In-service teacher training in sexuality education emerges in the above described context. According to Law (Lei n.º 60/2009), each group of schools has a teacher-coordinator and an interdisciplinary team of teachers involved in health and sexuality education. In addition,

each class has a teacher responsible for health and sexuality education whose function, together with the class director and all class teachers is to develop at the beginning of the school year, the class sexuality education project, which should contain the content and themes which will be later approached, the initiatives and visits to be made, and the invited authorities, technicians and specialists outside the school. This class project should be compulsorily included in the educational project of the groups of schools, respecting the guidelines established by their General Council after hearing from student and parents' associations and teachers. The number of hours devoted to sexuality education should be tailored to each level of education and each class should not be less than six hours for the 1st and 2nd cycles of basic education, and twelve hours for the 3rd cycle of basic education and secondary education. Later (Portaria nº 196-A/2010), the Portuguese Government stated that the teacher coordinator for health and sexuality education and the teacher responsible for health and sexuality education class, and also class teachers who integrate interdisciplinary teams to carry out this project, will have the guarantee of the Ministry of Education that the necessary in-service teacher training in this area will be available in order to empower teachers to carry out their roles as educators in sexuality. In summary, the regulation of in-service teacher training in sexuality education in Portugal is very recent, however, given the current legal framework for sexuality education in the school community, teachers urgently need in-service teacher training in this area.

In this context, the contributions for teachers' professional development of two different in-service teacher training action modalities, whose principal aim was to prepare teachers to carry out action-oriented sexuality education projects in their schools, will be presented.

## **Method**

### ***Participants***

Two hundred and fifty eight teachers from the 5<sup>th</sup> to the 12<sup>th</sup> grades, of fifteen schools of the North of Portugal, were involved in this in-service teacher training on sexuality education. This team was predominantly constituted by women (85,9% and 86,2% respectively from the Workshop and Training Course) with the majority of participants between 30 and 44 years old.

While in the Training Course (n=130, distributed in seven different classes), the majority of teachers were from the Natural Sciences subject area (77,7%), in the Workshop (n=128, distributed in eight different classes) there existed a great diversity of subject areas: Natural Sciences (27,2%); Portuguese, English and French (18,8%), History (11,7%); Physical

Education (10,9%); Geography (9,4%); Maths (5,5%); Arts and Crafts (5,5%); Physics and Chemistry (3,1%); Morals (3,1%); Musical Education (1,6%); Philosophy (0,8%); and Information and Communication Technology (ICT) (0,8%).

In both modalities, the majority of teachers taught in the 3<sup>rd</sup> cycle (7<sup>th</sup> – 9<sup>th</sup> grades) (53,1% and 31,5% respectively from the Workshop and Training Course), in secondary level (10<sup>th</sup> – 12<sup>th</sup> grades) (34,4% and 13,1%), and simultaneously in basic and secondary level (7<sup>th</sup> – 12<sup>th</sup> grades) (3,9 % and 30,8% respectively).

Teachers' professional experience in both Workshop and Training Course were similar, principally having a number of years of teaching respectively corresponding between: 6-10 years (34,4% and 25,4%); 11-15 years (30,5% and 18,5%) and 16-20 years (15,6% and 16,2%).

## **Procedure**

### *Characterization of the in-service teacher training methodology*

This research involved two different modalities of in-service teacher training based on participatory and action oriented sexuality education: a Workshop and a Training Course.

The methodology that characterized the Workshop aimed to: delineate or strengthen procedures for action and to produce materials for action, defined by the set of participants as the most appropriate response to the improvement of their educational interventions; ensure the functionality (utility) of the products obtained in the workshop for the transformation of practices; reflect on the practices developed; and build new procedural or technical means. This Workshop lasted for 50 hours, divided into 25 hours for teachers attending classes where active strategies were carried out to train teachers more scientifically in the methodological areas and in specific themes based on sexuality, intermingled with 25 hours of classroom teaching to create conditions for teachers in collaboration with students to plan and create the necessary infrastructures at their school for an alternative educational approach to enhance action-oriented sexuality education (see Vilaça, 2008a, 2008b, Vilaça and Jensen 2010).

The Training Course had as its global function, that teachers acquire knowledge, skills and competence and develop self-training and educational innovation, addressing predominantly the following objectives: updating and enhancing knowledge, both theoretical and practical; acquiring and developing skills and tools of analysis and questioning of the experiences of teachers in training; and improving professional skills. The content covered by the Training Course was directed to 'know' and 'know-how', also with the principal aim to prepare teachers to carry out a sexuality action-oriented project in their schools. Moreover, activities of analysis on the process were carried out, constituting a regulatory mechanism, which was

itself a process of training and 'reflexive practice'. In this research, the Training Course lasted for 25 hours and was organized in classroom sessions divided into weekly sessions of four hours.

The principal differences that occurred during the implementation of these two in-service teacher training modalities, were the absence of development of activities/ didactic material and the opportunity to validate them in the context of schools in the Training Course, and a trainer as a critical friend during the implementation of the beginning of school projects, who was only present in the Workshop and not in the Training Course.

### ***Measures***

The documental analysis of materials produced by teachers during in-service teacher training, complemented with a semi-structured individual interview, and participatory observation associated with a focus-group interview, were selected as the specific research techniques for the triangulation of data.

At the beginning of the in-service teacher training, the plan regarding the last sexuality education project carried out by the teacher in his/her school setting was analysed. A semi-structured interview, previously validated, was applied individually in order to clarify some graphic omissions. This interview was specially adapted to each teacher because the intention was to put forward questions in function of the written plan. This clarification included questions of the following type: 1) What are your expectations for this course/ workshop? (What new knowledge, attitudes and skills do you consider you will acquire in this training?); 2) Were these issues/problems, established in your plan, carried out in the subject that you taught or in other school activities?; 3) Who decided what issues/problems would be developed by students?; 4) Who decided what activities would be developed by students?; 5) What kind of activities were carried out? 6) Did you establish partnerships with experts or organizations outside the school to collaborate in the project? If yes, what was their contribution?

At the end of the in-service teacher training, a sexuality action-oriented project to be put in action in teachers' schools was planned. The analysis of this plan was also complemented with the above mentioned individual interview, conducted approximately three months after the project started in schools, where the first question was substituted by another similar question: "What new knowledge, attitudes and skills do you consider you acquired in this Workshop/ Course?"

In order to complement evidences collected during participant observation, three focus group interviews in each class (N= 42), involving five-six teachers, were carried out at the end of the training. This technique is the only one which allows for group interaction and increases

awareness of the researcher on why certain ideas exist and continue (Krueger 1994). In general, people need to hear the opinions of others before forming their own opinion and can change or better justify its initial position when it is exposed and discussed in groups (McMillan and Schumacher 1997). It was precisely this dynamic, that this research, using focus groups intend to establish.

This semi-structured interview, previously validated, intended to promote reflections on in-service teacher training carried out, in function of the various levels of change proposed by Korthagen (2004, 2009) in the so-called 'onion model'. This interview commenced with the outermost levels of reflection: the 'environment' (our class of in-service teacher training and teachers involved, and the teachers' schools and their students), teachers', colleagues' and students' behavior and teachers' competencies. Afterwards, the reflection was centered on the inner levels: beliefs, identity, and mission.

All collected data were transcribed and emergent categories of analysis, were established. In order to enrich the analysis of the data reduced to these categories, some narratives of teachers' discourse were selected to illustrate them.

## Results and discussion

### *Evolution of teacher's perceptions on continuing professional development*

At the beginning of in-service teacher training, the majority of teachers from both training modalities, the Workshop and Training Course, expressed their desire to attend this training because they wanted to deepen their knowledge about sexuality and sexuality education (SE) (73,4% and 88,5% respectively); to be familiar with good practices of SE (93,8% and 96,2% respectively) and to learn how to elaborate SE projects (76,6% and 73,8% respectively) (table 1).

*Table 1. Initial teachers' expectations and self-evaluation three months after the end of in-service teacher training (N= 258)*

Workshop (n= 128; 8 classes)		Training Course (n= 130; 7 cl.)	
Initial teachers' expectations	Teachers' self-evaluation three months after the end of the training	Initial teachers' expectations	Teachers' self-evaluation three months after the end of the training
f	%	f	%

Regarding their aims for in-service teacher training:

Deepen their knowledge about sexuality and SE	94	73,4	126	98,4	115	88,5	129	99,2
Being familiar with good practices of SE	120	93,8	128	100,0	125	96,2	127	97,7
Constructing and validating activities of SE	51	39,8	79	61,7	14	10,8	0	0
Being able to decide which methodologies are appropriate to the psychosexual development of students during the project	23	18,0	97	75,8	54	41,5	82	63,1
Learning how to elaborate SE projects	98	76,6	100	78,1	96	73,8	103	79,2
Knowing techniques to evaluate SE projects	35	27,3	37	28,9	39	30,0	42	32,3
Establishing partnerships for the implementation of SE in their schools	29	22,7	126	98,4	12	9,2	103	76,2
Collaborating on research projects with the university	10	7,8	75	58,6	15	11,5	15	11,5
Obtaining credits for career progression	36	28,1	15	11,7	42	32,3	42	32,3

Regarding their personal characteristics:

Feeling more motivated to carry out SE	75	58,6	126	98,4	5	3,8	90	69,2
Increasing their self-confidence to implement SE	0	0	112	87,5	17	13,1	103	79,2
Better understanding what their role is in SE in their schools	14	10,9	39	30,5	9	6,9	25	19,2
Increasing their knowledge in order to have a more reasoned and critical opinion of SE	23	18,0	126	98,4	19	14,6	99	76,2
Being able to collaborate with others to improve SE in their schools	0	0	97	75,8	2	1,5	82	63,1
Increasing their assertiveness to fight for changes they feel necessary in SE	0	0	79	61,7	0	0	30	23,1

When the Workshop and Training Course had finished, three months after the project started in schools, the majority of teachers maintained the above referred to wishes and considered that they had successfully been able to attain them from the training process. However, the majority of teachers also considered that they attained other very important objectives for their continuing professional development namely: establishing partnerships for the implementation of SE in their schools (98,4% and 76,2% respectively from the Workshop and Training Course); being able to decide which methodologies are appropriate to psychosexual development of students during the project (75,8% and 63,1% respectively); feeling more motivated to carry out SE (98,4% and 69,2% respectively); increasing their self-confidence to implement SE (87,5% and 79,2% respectively); increasing their knowledge in order to have a more reasoned and critical opinion regarding SE (98,4% and 76,2% respectively); being able to collaborate with others to improve SE in their schools (75,8% and 63,1% respectively) and increasing their assertiveness to fight for changes they feel necessary in SE (61,7% and



23,1% respectively).

These results indicated that in both modalities (although more visible in teachers from the Workshop), the majority of teachers who were initially only concerned in increasing their pedagogical and content knowledge guided in their practices by an ethical that orientated all of their professional development for their activities in the classroom, at the end of these training they had as their fundamental concern the desire to seek in-service teacher training to improve their own practices changing them by way of engaging in 'reflection-on-action', which means, to empower them to decide on what are the appropriate methodologies applicable to the psychosexual development of students during the project. Moreover, while at the beginning of these training the majority of teachers were exclusively concerned in attaining objectives related to their practices, at the end they were more focussed on the development of their personal characteristics, such as feeling more motivated, increasing self-confidence and having a more reasoned and critical opinion.

It is also important to emphasise that simultaneously, although more visible in teachers from the Workshop, teachers increased their awareness of the importance to act individually and collectively on the structural factors in school and society which affect a desirable development of SE. Indeed, in both types of training (although more visible in teachers from the Workshop), there had been a shift in the perspectives of how teachers viewed their continuing professional development. Initially, they were more focused on improving instruction and management of student learning however, at the end of the training, they had also been able to focus on teacher learning as well as the need to critically reflect and act in order to bring about changes in school and in society.

It was found that these teachers changed their visions from a more professional and instrumental development to a transforming vision, and mainly focused on teacher learning (Sachs 2009), where the role of reflection on teacher learning had become crucial and included the emotional and political dimensions of teaching, as well as the representations that teachers had of themselves and of their teaching profiles (Korthagen and Vasalos 2005).

### ***Evidence of teachers' personal and professional changes***

There was some evidence observed during the in-service teacher training and in the final SE projects of teachers, that teachers from both training modalities (although more visible in teachers from the Workshop), changed their practices and some of their attitudes and beliefs in SE. The principal characteristics of their practices were in the structuring and guidelines of the school's SE project (table 2).



ideas.	3	2,3	126	98,4	5	3,8	90	69,2
The strategies for project evaluation were defined at the beginning of the project	5	3,9	128	100	35	26,9	130	100

When teachers arrived at these Workshops and Training Courses, they stated that in all projects of health education and SE from their schools, they described the themes (93,8% and 97,7% respectively) and/or problems that would be developed with students (10,2% and 23,1% respectively), the objectives, content and how to implement the SE project in the class, namely the selected active activities proposed. Some projects also described action-oriented activities (9,4% and 19,2% respectively from the Workshop and Training Course) and some study visits to be conducted (58,6% and 22,3% respectively).

More than half of these teachers explained that in sexuality education projects, it was the Class Director or the Class Council who decided on the specific themes of the SE class project (68,0% and 19,2% respectively from the Workshop and Training Course), while the strategies and activities of the project were almost all previously decided on by adults (61,7% and 60,8% respectively) and experts were called to the school to present lectures or workshops (78,9% and 74,6% respectively).

At the end of the in-service teacher training, when teachers planned their projects for the future, the S-IVAC (selection of a problem, investigation, vision, action and change) methodology was applied. Projects continued with themes (75,8% and 73,1% respectively from the Workshop and Training Course) and/or problems (100,0% and 100% respectively), objectives, content and how to implement the SE project in the class. However, the active activities proposed in the initial projects were replaced in all new projects by action-oriented activities which were started with the definition of their ethical guidelines. Moreover, there occurred a decrease in the number of projects which planned some study visits to be conducted (11,7% and 14,6% respectively from the Workshop and Training Course), increased the number in which the students, together with the Class Director, decided on the specific theme/ problems of the SE class project (43,8% and 56,2% respectively), increased the activities suggested by students, who decided on which were the most appropriate within their action-oriented project (100% and 53,8% respectively) and increased the number of schools which called in experts to participate as the final speakers, with the aim of synthesising and completing students' ideas in roundtables or workshops organized by students who presented their own communications (98,4% and 69,2% respectively from the Workshop and Training Course). Moreover, all these new projects were planned by students who asked for the collaboration of various subjects for their development and included at the beginning of the planning of the projects, strategies for their global evaluation.

Throughout in-service teacher training, many changes in beliefs and attitudes of teachers in

relationship to sexuality, sexuality education and the continuing professional development of teachers were observed. Below is an extract of an interview of a female teacher in a focus group interview from the Workshop, illustrating the above referred to changes and which indicates the pattern of changes which occurred in the majority of teachers from the Workshop:

*My state of mind at the beginning of the training was completely open, but I was somewhat shy. My shyness was not only related to the subject, but also with the fact that I did not know to what extent the material would be 'within' the sexual themes. I wanted to increase my knowledge and to create activities that were actually appealing and effective for the development of the knowledge and skills of students and for their clarification of values in the area of sexuality. I also wanted to experience an exchange of ideas with other teachers on the most problematic issues and to be able to answer my doubts relating to matters of sexuality and its suitability for the different age groups. (...) I think I achieved all the above. Now, I am actively making changes to the school conditions in order to help students to acquire democratic values, respect for others, freedom and solidarity. I feel I 'grew up' scientifically and as a person. (...)*

*[During the training I felt] captivated and motivated to acquire knowledge and skills in the area of sexuality and for their consolidation throughout the activities practiced. While compiling and actively exploring the proposed activities, they made me feel at ease in addressing these various issues at school, but also helped me to better understand what was missing in my teaching and how I could improve it. (...) I reinforced what I had already thought about the ability that teachers have when they work together to promote changes in the school. (...) I know that I am able to improve SE in my school, and I feel that it is also my professional duty as a teacher.*

This teacher had a transformative vision (Sachs 2009) of continuing professional development. She emphasized her desire to work collaboratively with other teachers from her school to act on structural factors that influence the teaching of SE in order to individually and collectively, contribute to promote positive changes in the school community. She also reflected on her own mission as a teacher and said that it is a teacher's obligation to improve SE in school.

## Conclusions and implications

The principal results demonstrated some differences in the dimensions of personal and professional development acquired by teachers who attended these different in-service training modalities. Although the majority of teachers who attended the in-service teacher training changed their focus from an instrumental view of the continuing professional development to a transformative vision, this shift was most visible in teachers who attended the Workshop. In the Workshop, a larger number of teachers than those attending the Training Course increased the level of student participation in the school project and demonstrated their concern about being able to decide on which methodologies were appropriate to the psychosexual development of students during the project, which means increasing their self-reflection to provoke positive changes in their methodological approaches of sexuality education. Therefore, the results of this research have some implications in the selection of the modality of in-service teacher training when personal and professional development is intended. According to these research data, and respecting the reservation imposed by the fact that the teachers of each training modality do not have the same pre-service training, the Workshop as a modality for in-service teacher training, allows for a greater collaboration among teachers and the trainer, and for a longer follow-up time that seem favours their personal and professional development.

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# RESPONSIBILITY, CHALLENGE AND SUPPORT IN TEACHERS' LIFE-LONG PROFESSIONAL DEVELOPMENT

ATEE 2010 ANNUAL CONFERENCE  
PROCEEDINGS



Editors:  
György Mészáros,  
Iván Falus



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## Introduction

This volume includes the Proceedings of the 35th annual conference of the Association for Teacher Education in Europe. The Conference was held in Budapest, Hungary from 26th to 30th August and was organized by the Association of Hungarian Teacher Educators, Eötvös Loránd University (Budapest) and Eszterházy Károly College (Eger).

The topic of the conference was 'Responsibility, Challenge and Support in Teachers' Life-long Professional Development'. Educational policies in the past 20 years have focused on improving the quality of education through improving the quality of teaching. Research evidence shows that to achieve this goal, initial teacher education, teacher induction and in-service teacher education should form a continuous, coordinated process, providing an ideal context for teachers' life-long professional development. Life-long development is a must for the profession, if we consider the enormous challenges schools and teachers are facing today: such as the continuously changing social context, the phenomena of 'glocalization', the rising of new technologies, etc. Moreover, with decentralization, the autonomy of schools is increasing, which means that teachers are being made to take more and more responsibility for the content, the organization, the monitoring and the evaluation of the learning process going on in their classrooms. In addition, teachers are expected to contribute to the process of the curriculum reform and educational innovation. What is more, by continuously monitoring and evaluating their own performances, they are expected to recognize and then address their professional development needs. These are all huge challenges the teaching profession has never had to confront before.

The papers in this volume tackle these challenges, trying to explore the nature of teachers' professional development more deeply, and to offer some educational answers on the basis of research evidence. A wide variety of issues are treated by different papers: the challenge of climate change, the cyberspace and the new technologies; personal traits and teacher profession, methods and processes to support teachers' development; initial teacher education for life-long learning; schools as sites of teachers' development.

The volume includes the papers presented in one of the preconference workshops (on climate change), in different Research Development Centers (RDCs) of the Conference which are the following: Research Observatory; Vocational and Adult Education; Inclusion and Special Needs; Culture, Language and Citizenship; Science and Mathematics Education; Curricula in Teacher Education; Teacher Education and Information Technology; Professional Development of Teachers; Professional Development of Teacher Educators; and In-Service Learning and the Development of Practice. In addition, one poster presentation is included. All the papers in the present volume have been reviewed and

accepted by the chairs of the RDC sessions, who are internationally acknowledged experts in the field of education.

The editors would like to express their gratitude to the Academic and Organizing Committee of the Conference, to the Association of Hungarian Teacher Educators, to Eötvös Loránd University, Eszterházy Károly College and to the Municipality of the City of Budapest.

The Editors

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