INNOVATIVE PRACTICES REGARDING THE TRAINING OF TEACHERS IN PRE-PRIMARY AND PRIMARY EDUCATION

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Abstract

In this article there are explored the innovative practices applied regarding teacher training at an international level. Different kinds and forms of teachers' training within the European and international context are described and combined with the tendencies in teachers' professional development and improvement of their classroom performance. With respect to the teachers' experiences and needs, all the effective training programmes shared the participants' active engagement in the respective training activities and the interactive form of the course.

Key words*:* innovative practices, pre-primary education, primary education, teacher training

1. The training of pre-primary and primary school teachers

1.1. Initial training

The initial training of teachers is the beginning of a long-lasting procedure that refers to the training and the capacity of teachers, which is nowadays considered as a lifelong process. As characteristically described by P. Musset (2010, p. 15), "Initial teacher education represents the entry point into the profession, and the way it is organised plays a key role in determining both the quality and the quantity of teachers". Drawing on the report of P. Musset discussing the current practices in OECD countries, the most common 'combination' of initial training of teachers is described as including courses in subject-matter (content knowledge) and teaching techniques (pedagogical knowledge). Some countries also include: the development of research skills, content in cognitive, behavioural and social sciences and knowledge in child development.

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There is a recent trend of transferring the training or part of the training to schools by offering practical school experience and involving serving teachers in the training of future teachers.

In most of the OECD countries the studies for Primary School Teacher cover 3 years of study. However, since the 1980's there has been a trend for lengthening teacher education programmes (6 years in some countries, e.g. Korea). In EU countries, the bachelor degrees for Primary Education Teachers normally cover three or four years of study and, in some cases, five years. The training programmes for pre-primary education have shorter durations compared to primary education programmes in some countries. In Romania, the initial training of teachers for pre-primary and primary education is now done according to the Bologna process, through the Departments of Pre-primary and Primary Teaching Staff Training from universities, during a three-year study programme, at the end of which graduates receive a diploma in the Pedagogy of Primary and Pre-primary Education, which allows them to become teachers in pre-primary or primary education. In some countries, the acquisition of a Master's Degree is a prerequisite for teaching, e.g. Finland. The providers of initial teacher training vary and depend on central educational authorities. In some countries, there are State Agencies (France, Germany, Spain, Korea), whereas in others (United Kingdom, United States, Australia) the training is provided by public and private providers (non-government agencies, private consultants, training firms). In some countries, these programmes are free of charge for the candidates (e.g. France), whereas in other countries it is the aspirant teachers that pay (United States, Canada) (Musset P., 2010).

The increasing complexities of the teaching profession and the broadened role of teachers within the educational systems require appropriate institutionalized preparation and training. The initial training of teachers appears to be the beginning of a long-term and endless process of learning, which encompasses the continuous update of knowledge and readjustment of practices. This calls for the respective training that will qualify future teachers for this life-long learning process.

1.2. Teachers' professional development

Continuing training is described as having as its purpose to 'update, develop and broaden the knowledge teachers acquired during the initial teacher education and/or provide them with new skills and professional understanding' (OECD 2005, p. 122). Even if they receive a quality initial teacher education, teachers need to be trained throughout their entire life. Continuing training is even more important in countries where teachers do not have all the academic preparation they should have. Continuing training is a great tool to develop the skills needed to reach higher student outcomes. The promotion of continuing training is also very much linked to the idea that schools are valuable places for teacher learning (Musset, P., 2010).

EU countries use different terms to describe training given to teachers after their initial training: *continuing training, additional training, in-service training, qualifying training, and advanced training*. Zafeirakou A. (2002) refers to the definition that the European Commission attributed to the term 'In-service Teacher Training' in the middle of the 1990s as "a variety of activities and practices in which teachers become involved in order to broaden their knowledge, improve their skills, assess and develop their professional approach" (Zafeirakou A., 2002, p. 255).

Since the demands for teachers' work have changed as a result of the continuous development of educational models, new types of teachers' training have emerged. Complex challenges in education, such as increasingly diverse student populations, new technologies and rigorous academic standards and goals have led to the emergence of the concept of *continuing professional development* within the process of lifelong learning (Karagiorgi & Symeou, 2006). During the second part of the 1990s, various EU countries have started to replace the term 'In-service Teacher Training' with the term 'Teachers Professional Development'. This change reflected the influence of ideas about the importance of lifelong learning and continuous adaptation of teachers to professional and technological innovations (Zafeirakou, 2002). Villegas E. (2003) notes that only in the past few years has the professional development of teachers been considered a long-term process that includes regular opportunities and experiences planned systematically to promote growth and development in the profession. This shift has been so dramatic that many have referred to it as a 'new image' of teacher learning, a 'new model' of teacher education (Villegas, 2003, p. 12).

Short term or one-shot programmes have been recognized as ineffective in helping teachers develop their practices. Effective professional development for teachers is comprised of teachers' research and inquiry, collaboration and learning from peers, engagement in practical tasks and provision of consistent feedback. As pointed out by Craig, Kraft & Du Plessis (1998) in Karagiorgi and Symeou (2006, p. 2), ''several studies point to the need for broadening the concept of in-service programmes to a growth continuum of on-going, participatory learning that is closely linked to the realities of classroom needs.''

1.3. Providers of in-service training

The policies about the in-service training of teachers differ among countries. In some of them, the participation in continuing training is compulsory for all teachers and regulated by specific acts, whereas in some others it is optional and adheres to the teachers' personal demand for professional development. The training programmes are offered by a variety of institutions: private or public universities, institutions controlled by the state/ Ministry of Education,

institutions controlled by the local administration, teacher-based groups (teachers' unions, teachers' associations), private institutions. For instance, in Japan in-service education is offered on a formal level by the Ministry of Education, local teacher-training centres and universities and on an informal level by teachers' unions, voluntary study groups which function on a monthly basis, schools and teachers' own study (Villegas, E, 2003). The demand for more in-service training leads to the expansion of institutes that can accommodate the training programmes. In Italy, institutes have been established in different regions for the provision of continuing training to teachers. In other countries, existing institutions have been given more responsibility in the development of in-service training. In Denmark, Portugal and Switzerland, teacher preparation institutions have been invited to contribute significantly to in-service programmes, whereas in Finland and Sweden, universities are in charge of in-service preparation. In many countries like Germany and the United Kingdom, schools are responsible for the implementation of in-service training regarding their staff.

Teachers' in-service training in Cyprus is a responsibility of the Cyprus Pedagogical Institute, a department of the Ministry of Education and Culture. The Department of Teachers' In-service Training organizes mandatory and voluntary courses. The compulsory courses refer to newly promoted Secondary School Head teachers, newly promoted Primary School Head teachers, Deputy-Head teachers of Secondary Education and newly appointed teachers of all levels and their mentors – the Induction Programme (Pedagogical Institute of Cyprus, 2010). There is a variety of optional courses sometimes addressing all teachers of all grades and sometimes a specific group of teachers, offered in forms of seminars, conferences or workshops. There is no system of credit units for promotion purposes established in Cyprus. However, the certificates of attendance to the training programmes are positively considered by the inspectors during the evaluation of teachers' performance.

In Romania, the in-service training of teachers is obligatory and based on transferable professional credits, where teachers have to obtain 90 credits in a 5-year period. In-service training for teachers takes place through a system of institutions, organisations and their structures. These institutions have as functions the regulation, coordination, funding, assessment, accreditation and monitoring of in-service training programmes or the organisation and delivery of in-service training activities and programmes, and have the statute of in-service teacher training providers (European Commission, 2012).

2. Applied curricular innovations in in-service teacher training programmes

Curriculum innovation usually refers to initiatives that are perceived to be new by those who introduce and experience them (Halpin, Dickson, Power, Whitty & Gewritz, 2004). McCulloch (1998) notes that curriculum innovations can take the form of completely new subjects or old subjects combined with new ones. They can include, for example, new content, concepts, sequencing and time allocation within or across already existing subjects, they can even translate to new and improved ways of teaching students. One might argue that curricular innovations generally change the relation between what is to be learned, how this should be achieved, and the relationship between teachers and students (Gellert, U, 2005). Innovations can range from single subject changes, for example, a new reading programme, to more comprehensive changes, such as an integrated approach to teaching children of a certain age level (Fullan, 1991).

This report focuses on curricular innovations applied in countries all around the world which are considered to be innovative practices. In order to be considered innovative, an idea or practice should be perceived as new by the individual or unit of adoption. Therefore, one practice being applied in one country for a significant period of time could be introduced as new to another country and this always depends on the pre-existing conditions. The following practices are considered to be innovative for the context of Cyprus and Romania.

2.1. Teaching methodology

Different kinds of training programmes for teachers can be met in different contexts. In some cases there has been a need for massive training of a large number of teachers in a very short amount of time. For this purpose, the need for special training programmes increased. In the case of Nigeria, as reported by Salazar-Clemena R.M. (1997), at a time when the number of students analogically over exceeded the number of teachers, the 'PISA' Project (Peer In-Service Approach) was applied. 'PISA' is considered as a 'self-help' in-service approach that drastically reduces the cost of financing training programmes for teachers within local government areas. It recognizes *the skills of good teachers* in any locality within a cluster of schools. The expertise of these good teachers is utilized to update other teachers in neighbouring schools in the same area. As peers to the other teachers, the good teachers are easily accepted. The good teachers are therefore regarded as 'itinerant in-service teachers'. It is clear that the most innovative feature of PISA is its utilization of the expertise of good teachers for the in-service training of other teachers in nearby schools. This approach gives recognition to the good teachers and thus, in a significant way, raises their self-esteem.

The *peers teaching other teachers* model was applied in some other cases where teachers who had been trained or educated in a particular topic or aspect of teaching or subject matter, were responsible for the training of other teachers. A first generation of teachers became the educators of a second generation. According to research, this can continue effectively for up to three generations. This model was applied in Chile, where institutes of teacher preparation implemented training in 15 per cent of public schools with no cost for teachers (Villegas E., 2003).

Apart from the utilization of a good teacher or the teachers that have received training, training programmes can involve an expert person that will guide and provide useful information about teachers' practices in the classroom. However, supervision in the classroom is perceived as a negative method by teachers as it is correlated to the evaluation by a third party, usually the inspector, unless it takes the form of *'clinical supervision'*. In this new perception, supervision is considered as a means of offering helpful feedback and suggestions on ways to improve a particular aspect of one's teaching. Villegas E. (2003) suggests the following steps that will lead to effective clinical supervision: firstly, a pre-observation conference should be applied, secondly an observation of classroom performance, then the analysis of the data collected during the observation and finally a post-observation conference.

In Finland, new types of in-service training have been developed during the past years. In one programme presented by T. Asunta (2006), which is based on *shared* school *expertise*, teachers 'train' university teachers based on their professional everyday knowledge and university teachers inform teachers about the latest research on different learning or methodological aspects, based on their own research findings. The idea is that co-operative seminars and pedagogical days will be arranged together every year. Both teachers and teacher educators can be trainers as well as participants in these events.

2.2. Content of training

The training programmes offered to in-service teachers depend on the aim of the programme, the subject of the programme and the educational level of teachers. All the effective programmes selected for the literature review have in common the active participation of teachers in the training. H. Alarcon, G. Zavala, J. Benegas (2007) describe a case in Mexico during which teachers experienced *active learning* during an in-service programme course on Physics. The course was organized in a constructivist, active learning environment, so that teachers had firstly to experience, as regular students, the whole tutorial sequence of activities. After each tutorial, teachers reflected on, and recognized their own students' learning difficulties, discussing their

teaching experiences with their colleagues in small collaborative groups first and the whole class later. At the beginning and at the end of the course, the participants were given the conceptual multiple-choice test for the purpose of formative assessment in order to improve instruction. The main objective of this training course was to provide the participants with a first hand, practical contact with an active learning teaching strategy in order to break the close cycle of 'teaching as I have been taught'.

There are training programmes that are *project-based* and their aim is to 'help teachers work independently and collaboratively as reflective professionals' and to support the learning of their students. As Kieviet F. (1990) describes a training programme about the development of thematic learning materials in the Netherlands, the course was offered in several formats which varied in the amount of theory and practice. The participants were involved in different activities like discussions, evaluations, reflections and the development of materials. Then they went through an evaluation of the aspects of the programme that were most effective. The evaluation showed that trainees learned more during their involvement in practical activities.

The engagement of teachers in programmes designed to promote teachers' *reflection* on their practices results in the improvement of their teaching. This model builds on teachers' personal classroom experiences and requires that the teacher pays attention to daily routine and the events of a regular day and reflects on their meaning and effectiveness. According to Potter and Badiali (2001) teachers should apply: *technical reflection*, which refers to considering the curriculum and adjusting teaching according to the situation presented at a particular time, *practical reflection*, where teachers think and deliberate about the means and the purposes of particular actions and *critical reflection,* where teachers raise issues related to moral and ethical situations faced in the profession. An example of the implementation of this model is described by Adalbjarnardottir and Selman (1997). They designed and implemented an intervention programme, having as one of its goals to encourage teachers to reflect on their pedagogical ideas, aims, teaching practices and professional development as they relate to the issues of children's social behaviour and the development of children. As a result of the programme teachers became more reflective of their practices and provided significant opportunities to children to do the same.

One tool which is related to reflection and appears to be very beneficial for teachers is their *narratives.* According to researchers, teachers' own narratives on their experiences in the classroom can have a terrific impact on their work. One important learning model is to reflect on one's own experiences and one way of collecting data about one's own experiences is by writing about daily experiences in the classroom. The steps of this method are described by Ershler

(2001): first, the teachers write narratives that describe different events or instances of the teaching practice. These are distributed to other teachers who are part of a learning group for reading and review. The narratives are discussed at length. Usually, teachers focus first on the specific event that is being reported and then go a step further and begin to establish connections and observe the isolated event in a larger context. A programme that applies this method is the US National Writing Project which asks teachers to 'articulate their own dilemmas and pursue means to resolve them' by writing about them. To accomplish this, the National Writing Project established regional and national networks of teachers who write on their own problems and during their contact with other teachers give and receive ideas, support and critique (Lieberman and Wood, 2001).

2.3. Technology supported programmes

The problem of distance or lack of time that teachers deal with during their in-service training may be solved through *distance education*. As noted by Villegas (2003), with the development of new technologies for educational purposes, distance education has been transformed dramatically. In most cases, the use of new technologies has created many opportunities for teachers by offering them the possibility of having on-line discussions, frequent assessments, participation in newsgroups and teleconferencing, ongoing documentation of processes and facts.

In one case in the U.S.A., presented by Knapczyk (2006), during a shared effort of the staff at Indiana University and the school personnel from several rural school corporations in southern Indiana, in-service classes are delivered to off-campus sites in rural communities located 100 miles away from the University, by means of distance-learning. Teams comprising two to six teachers from the schools close to one another form cohort groups for the programme. Coursework is designed to improve the skills of school personnel who work with at-risk students (At-Risk Programme - ARP) and the aim is to develop effective teaching practices. Local personnel assist in planning and teaching the academic course. Instruction is presented in a co-teaching arrangement. One co-teacher is a trainee from the cohort group and acts as a group facilitator. The other co-teacher is a university-based instructor, who administers and supervises the course, organizes the class content, prepares training materials and participates in class presentations with the aid of technology.

The above example of distance-learning used *audiographic technology* for the implementation of its courses. 'Audiographics is a computer-based, hybrid technology that permits simultaneous transmission of voice and graphic images across telephone lines, and it is highly interactive. It allows people at different locations to speak with one another, share text and graphic images and

annotate images displayed on monitors. Several schools can be networked together in a conference-call format with each site having full interactivity.' The audiographic technology permits a two-way, voice and graphic interaction during lectures and discussions. Both instructors, the facilitator of the group and the University instructor can physically control the slide presentation and have the responsibility for presenting the materials. The audiographic network allows trainees to scan and transmit samples of their work to the University instructor for review, feedback, further discussion and evaluation (Knapczyk, 2006).

In Hungary, for the purpose of a programme for in-service training, *online mentoring* was provided to teachers, i.e. scaffolding the knowledge creation of teachers by peers, e-moderators or facilitators in an *e-learning environment* to support innovative practices. As Dorner H. & Kárpáti A. (2011) mentioned, the programme made use of a virtual learning environment: the Future Learning Environment (FLE3), which was 'an asynchronous groupware system designed for supporting collaborative knowledge building and progressive inquiry in educational settings […] was used for sharing knowledge and pedagogical practices, adapted or self-developed contents […] was used for finding, authoring and sharing learning resources, but also could be utilized as a site for international professional co-operation among members of an international community of teachers.' VLE played a crucial role, both in the collaborative processes and the mentoring events, since it served as an appropriate platform of learning and sharing ideas, materials and practices within the community that consisted of in-service teachers located in different parts of the country.

To meet the need for flexible and interactive teacher training, the Korean government created a Cyber Teacher Training Centre (CTTC). The CTTC project, as introduced by Jung I. (2001), developed a software platform for managing *online in-service teacher training*. Most of the online training courses offered by the CTTC that have scheduled starting dates have been developed as self-directed Web-based learning programmes and last from a few hours to months, depending on how the course is designed. The facilitator of each course is encouraged to provide online support and motivation to teachers, give task-oriented feedback and evaluate the teachers' performance. Group discussions among the learners are also encouraged, with some courses requiring participation in one or two face-to-face tutoring sessions. Sometimes teachers are evaluated on their participation in online discussions and are required to submit a report, and all the courses include a final examination in a regular classroom.

During an international education development programme in Bangladesh, a technology-enhanced learning was established for the training of teachers. C. Mahruf et al. (2012) provided a

brief presentation of the programme which offered English language teachers training, resources and classroom materials through the use of a media player (iPod), so that they could enhance their own teaching skills and bring new ideas into the classroom. Teachers were given training on how to use the media player and supporting materials. The media player was also used during *pair support* when two teachers worked together and supported each other towards their joint professional development. For example, they could watch a micro-teaching lesson from the audiovisual resources on the media player and discuss together which method would be better for the specific lesson in their school contexts.

Conclusions

All the studied cases of applied innovations have in common the engagement of teachers in active learning and offer opportunities for teachers to build on their own experiences and knowledge. Quite effective appears to be the training of teachers by other teachers who are able to understand the needs of teachers based on their own experience. Other effective programmes engage teachers in reflective practices and in projects aiming to examine the problems encountered by the teachers and provide solutions to them. The use of technology during the training of teachers could not only support the learning of the participants, but at the same time lead to their familiarization with the new technologies which can be used in their teaching practice.

Overall, the investigation of practices applied in other countries and in other contexts provides useful ideas for the upgrade and modernisation of teachers' training programmes in order to adapt to the current needs and the evolving complexities of the teaching profession. The adoption of innovative ideas applied in other countries can help towards the professional development of teachers and the improvement of their practices, with the respective impact on their students' learning.

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