Abstract
This paper is about the process of gathering knowledge concerning induction practices in Europe within the framework of an EU-funded project, INNOTE (Induction of Novice Teachers), aiming to bring together examples of good practices across the partner sites to generate new models for supporting professional learning and development.

The first part of the paper is going to give an insight into the theoretical background of our work, relying on some aspects of the Induction Programmes --a Handbook for Policymakers.

The second part will be devoted to common areas of practice and areas of difference across the partner regions. It will present our work in detail, carried out in the project partner countries, focusing on Newly Qualified Teachers (NQT-s) and their mentors.

The third part tries to come to conclusions based on our findings as means of what we have learnt from each other and how it can be adjusted to our practice as well as sharing it with anyone interested in the topic.

KEYWORDS: induction, good practices, newly qualified teachers, mentors, education policy.

Induction practices in Europe: Learning from each other

Political and research-based arguments for induction

People working in the fields of education policy throughout Europe have been putting more and more emphasis on the importance of induction. The quality of Teacher Education is considered to be of high importance on the policy agenda in all the countries of the European Union. Ministers of Education in November 2007 agreed that “high quality teaching is a prerequisite for high-quality education and training, which are in turn powerful determinants of Europe's long-term competitiveness and capacity to create more jobs and growth in line with the Lisbon goals” (Developing coherent and system-wide induction programmes for beginning teachers: a Handbook for Policymakers) They have come to the conclusions that Member states should ensure that teachers hold a qualification from a higher education institution which strikes a suitable balance between research-based studies and teaching practice, they should possess specialist knowledge of their subjects, as well as the pedagogical skills required, have access to effective early career support programmes at the start of their career, have access to adequate mentoring support throughout their careers, are encouraged and supported throughout their careers to review their learning needs and to acquire new knowledge, skills and competence through formal, informal and non-formal learning, including exchanges and placements abroad. In November 2009 Ministers of Education agreed that “teachers need access to effective personal and professional support throughout their careers, and particularly during the time they first enter the profession.” (Conclusions of the Council and of the Representatives of the Governments of the Member States, an agenda for European cooperation on schools (OJ 2008/C 319/08), and on the professional development of teachers and school leaders (OJ 2009/C 302/04).

They asked the European Commission to bring forward ‘practical information’ for policymakers on developing structured induction programmes for all newly qualified teachers (NQTs).

The Handbook for Policymakers was a commonly negotiated and accepted response for that request and an important guidebook for all the stakeholders. Some research showed that: "Many new teachers went through their first months of school believing that they should already know how their schools work, what their students need and how to teach well. When they had questions about their schools and their students, they eavesdropped on lunchroom conversations and peered through classroom doors seeking clues to expert practice. Having no access to clear answers or alternative models complicated the quality of their teaching, challenged the sense of their professional competence, and ultimately caused them to question their choice of teaching as a career." (Moore Johnson and Kardos, 2005, p.13)

This research clearly showed that there are serious problems with induction. So why should an induction scheme be introduced? In Hungary we thought:

1. Beginning teachers are very good in theoretical aspects of teaching, but they don’t know, how to apply their knowledge to the specific needs of schools.
2. Beginning teachers don’t know how to survive in the circumstances of the reality shock, they will leave the profession, or because of the lack of success they will start their way to getting burnt out.
3. Having a good mentoring program, they will not just survive, but they can be the agents of innovation in their schools.

4. The induction period will be the starting point for their life long learning as a teacher.

5. The supporting activities will be part of a learning process for the beginning teacher, for the mentors, other colleagues, the school leaders as well.

In the Netherlands in 2010 Helms-Lorenz and Buitink wrote an unpublished review article in which literature was searched for what showed proven to be effective induction programmes. They found only 14 articles that described good research and that gave conclusions about what factors are effective in induction. From these articles the authors have drawn several conclusions about what a good induction programme should consist of. They thought that an ideally structured induction programme should have a duration of at least 2 years, ideally three years because the greatest drop-out occurs in the first 5 years on the job. It should provide the NQT with a mentor (ideally the mentor should be of the same subject field and available on a daily basis to provide timely support), it should provide mentors who give various types of support, such as information about 1) the district's procedures, guidelines, and expectations 2) materials and other resources 3) teaching and assessment strategies; 4) classroom organization and management; and 5) methods for working with family and community members. It should also provide regularly scheduled meetings for mentors and NQTs within a formal systematic programme, structured programme activities. It should provide opportunities for common planning time with other teachers in the same subject, opportunities for regular scheduled collaboration with other teachers, it should encourage constant interaction between novice and experienced teachers (need to vent and brainstorm solutions), sharing knowledge and information. Moreover, it should provide collaboration time, opportunities for being part of an external network of teachers, it should provide opportunities for working in interdisciplinary teams, peer coaching with mentors, opportunities for structured peer coaching, for classroom observations with feedback, opportunities to reflect on teaching practices by analyzing videotaped lessons to observe other teachers. Furthermore, it should stimulate research-based strategies to be learned and practised in the classroom, it should provide opportunities to examine instructional practices by conducting a classroom-based inquiry project, opportunities to write about teaching challenges and successes in a reflective journal. What is more, it should provide workshops, novice teacher seminars, work with professional development plans, work with clearly articulated goals, have special professional development sessions for beginning teachers during the school year, work with portfolios, give less emphasis on assessment and more emphasis on assistance and support. Also, it should provide an orientation (one week to one month) which includes networking between teachers and in-service workshops on timely topics, assign NQTs smaller classes, give released time and/or load reduction for mentors and beginners, give easier assignments for beginning teachers than for experienced teachers, provide NQTs emotional support, opportunities for reflection, include many activities because as the number of components in the induction arrangements increases, the probability of retention increases. Finally, it should have financial resources to support induction activities and support from school principals.

Independently from the ideas mentioned above, the Induction Handbook, based on a wide range of literature, concluded that the induction phase must include:

- support from mentors and other colleagues
- a reduced teaching timetable without a decrease in remuneration
- access to appropriate support resources
- attending a mandatory guidance programme
- opportunities to relate theory to practice in a systematic way.

Among the authors there was a broad consensus that national strategies should be focussed on the development of policies in which provision for teachers' initial education, early career support and further professional development is coordinated, coherent, adequately resourced and quality assured.

Induction programmes can contribute to increasing both the quality and the quantity of teachers in a right way if support and systematic guidance is provided to teachers at this stage. Their subsequent professional commitment is fostered and also prevention from leaving the teaching profession can be achieved. It was stated that the support novice teachers can get can be formal (successful completion of the induction programme is one of the compulsory prerequisites for gaining a full teaching licence), or can be non-formal (participation in an induction programme is voluntary). This support can focus on three different dimensions: professional, social and personal dimension.
In the professional dimension special emphasis is placed on supporting the beginning teacher to gain more confidence when using essential teacher competences, including pedagogical knowledge and skills as well.

In the social dimension the emphasis for the beginning teacher is on how to become a member of the (learning) community of the school, to understand and accept the qualities, norms, manners and organisational structure that exist within the given school.

The personal dimension relates to the development of a professional identity as a teacher that is to clarify the beginning teacher’s view on teaching and learning, her role in these processes, her attitude to lifelong learning. It is in this dimension that the emotions and perceptions of beginning teachers’ self-efficacy and self-esteem play a very important and decisive role.

Coherent induction programmes aim to provide support in all of these three dimensions.

Where experienced teachers are open to new ideas and approaches, beginning teachers can be a source of new and refreshing ideas and inspiration. At the same time induction programmes can protect NQTs from the dominant culture too and can foster these teachers’ fresh ideas.

Moreover, induction programmes can provide valuable feedback to teacher education institutions concerning the adequacy of their programmes in initial teacher education that is to update their curricula and in this way help to reduce the gap between theory and practice.

Reducing the drop-out rate of teachers from the profession, safeguarding the quality of teachers and providing feedback for teacher education institutions are basic aims for induction programmes designers.

For newly qualified teachers (NQTs) three basic kinds of support are needed:

- personal, social and professional.

On personal level in order to create personal support, several elements are important such as support from a mentor and from peers, a safe environment and reduced workload of beginning teachers. Support from peers and mentors provides ‘realistic’ solutions for beginning teachers to cope with practical problems. In a safe environment every day problems and feelings can be discussed without the risk that they are used to judge one’s professional competence. By reducing the number of NQTs’ teaching hours (without reduction in salary) and/or by support through team teaching or co-teaching the feeling of incompetence can be avoided and efficient support provided.

On social level social support makes collaborative learning environment come to life within the school and between the stakeholders in the educational system (parents, community etc.) It is essential that (part of) it takes place within the school and active involvement and ownership from different parts of the school community make the essence of it.

On professional level professional support is provided for developing the newly qualified teacher’s competences (in pedagogy, didactics, subject, etc) and for the development of effective classroom skills. Elements of professional support can be: contributions by experts e.g. from universities and ITE institutions (formal courses or master classes or by the opportunity to consult experts) and exchange of practical knowledge between beginning and experienced teachers.

The three relevant components of an induction programme (personal, social and professional support) are translated into four interlocking systems that together create a coherent induction programme:

- systems for mentoring, expert inputs, peer support and self-reflection.

Mentoring system is to stimulate professional learning by using coaching, training, discussion, counselling. Regular meetings are the core of successful mentorship.

In the expert system the focus is on creating access to external expertise, to support materials, resources, guidelines and advice in order to expand content and teaching.

Where the licence of beginning teachers is probationary and the probation period ends with a formal exam, the expert system is essential and mostly dominated by national agencies, institutions or universities. In other cases, the expert system can be organized at school level, where the experts are mainly experienced teachers, or can be a service offered by universities or by other CPD providers.

What concerns peer system support, creating opportunities to network within and across schools is essential. However, face-to-face meetings are also very important besides virtual communities. When schools are small, in peer groups novice teachers may come from different schools, which can lead to interesting exchanges on different approaches in different schools.

The induction programme should include opportunities and frameworks for novice teachers to reflect on their own learning and help to develop a shared culture within the teaching profession. The self-reflection system might rely on a recording system, e.g. the use of portfolios, observation of and feedback
on teaching, team-teaching, diaries etc. and can be stimulated by established standards to practice, demonstrations of performance, peer review.

**The aims of an induction programme can be fulfilled if the following conditions are met:** there is
a) financial support provided for mentors (recognition of their additional responsibilities i.e. responsibility allowance in their salary) and for beginning teachers (they have a reduction in their workload, without reduction in their salaries),
b) the roles and responsibilities of stakeholders are clearly defined,
c) there is co-operation between different elements of the system, (induction is part of a continuum: building on ITE and feeding into CPD which means that each stage in the continuum includes activities appropriate to that stage, and in this way duplication can be avoided in the process.)
d) there is a culture that is focussed on learning (beginning teachers are change agents, assets to schools)
e) there is focus on quality management i.e. mentors’ inter-personal skills, communication and knowledge about the learning of beginning teachers are essential for success. Moreover, school leaders play an important part in allocating resources (teaching hours, or contact time with mentors) and in ensuring that the school’s policy on supporting novice teachers is understood and supported by the staff of the school. What is more, stakeholders’ commitment to evidence-informed practice is crucial for monitoring the effectiveness of the induction system.

All these general considerations concerning the aims and means of support during induction are based on the conclusions of the Handbook for Policymakers.

**Induction in reality in INNOTE participating countries**

Working in the INNOTE project our aim was to promote peer-learning amongst teacher education institutions participating in the project and to develop and pilot evidence based comprehensive induction and mentoring programmes with the countries’ own flavours. The countries involved in this project are: the Netherlands, the Czech Republic, Finland, Slovakia, Bavaria (Germany), Scotland and Hungary. What we have found after the first informal talks was disappointing because we have recognized that there are no formal induction programmes for newly qualified teachers in our countries (with the only exception of Scotland and partially Bavaria). The descriptions below show induction in reality from the project partners, based on the data of the first annual report of the project.(Deinum, J.F. (ed.) (2010). Annual report INNOTE 2010)

**The Czech Republic**

There is no systematic approach existing, there are no obligations for the schools. Before 1989 every newly qualified teacher (NQT) was provided with a mentor in their first year of working as a teacher. But after changes of the education legislations the need for an adaptation phase has disappeared. Nowadays schools can support novice teachers if they want to but no obligations exist anymore.

Partial research data exist only.

Induction phase might be included in a contract with labour unions (it was recommended in a Labour Unions’ statement in 2005, it did not appear in a similar statement in 2009).

However, many headmasters follow some of the expert recommendations, eg.:

What should be a content of the adaptation period -Activities and areas

- Information about school life and operation
- Support in lesson planning, information about individual pupils’ learning needs
- Duties of a class teacher – support and advice
- Relationship with parents
- Educational context, further life long learning

**The Netherlands**

No induction exists in the Netherlands, either. Schools are free to set up an induction arrangement and they are free to organize it as they wish. The importance of the realization of a formal induction becomes more and more widespread around the Netherlands, because of the upcoming teacher shortage in that country. Although there is no official induction period in the Netherlands, the practical situation is changing rapidly. The origin of this change is the change in initial teacher education and the increasing involvement of schools in the in-service training within initial teacher education. More and more schools are acting as Professional Development Schools and are responsible for the guidance of student teachers
doing their teaching practice. Therefore, these schools appoint an experienced teacher as supervisor, who is trained by teacher education institutions. These supervisors originally focused only on student teachers, but slowly extend their field of work to beginning teachers and even experienced teachers.

**Slovakia**

In Slovakia every novice teacher that leaves the university starts with an adaptation phase of minimum 3 months and maximum 2 years. In this adaptation phase NQTs develop their professional competences and visit some courses from the educational program. They end this phase with a final project and they have to take an oral exam before a three-headed committee. When novice teachers pass this exam they move to a higher level in the Slovakian career system of education.

In 2009 in Slovakia a new law about pedagogical employees and professional employees was passed. With this law a new career system of teachers came into reality. The first level is adaptation education. In reality not universities, but methodological centers have got money from the State for preparing the mentors and maybe beginner teachers, but in the law it is also written that schools (mentors from schools) could cooperate with universities. Afterwards, when NQTs are working in the schools, there must be competent teachers (mentors) that could take care of and help the NQTs.

**Finland**

There is no formal induction system in Finnish schools. Induction arrangements are organized by individual schools as best they see. Sometimes there is no induction at all. Schools are free to decide whether to use an induction programme or not. Nevertheless, the need for induction has been recognized throughout Finland, as well.

There are some interesting projects on teacher induction and mentoring:

The VERME project (http://ktl.jyu.fi/ktl/verme/main/esittelty) coordinated by the Finnish Institute of Educational Research based at the University of Jyväskylä and funded by the Finnish Work Environment Fund, the Ministry of Education, The Finnish National Board of Education and the participating municipalities:

VERME comes from the English concept "peer group mentoring", translated as “vertaisryhmämentorointi” in Finnish. Usually, mentoring is a relationship between a more experienced person and a novice. Usually, the mentor and the mentee have a dyadic relationship. There are two main differences between this classical understanding and that which we call peer group mentoring.

Traditionally, the mentor is expected to transform tacit knowledge to the less experienced person, the "mentee" or "actor". VERME mentoring, in contrast, is based on the sharing of experiences and expertise. We believe that every teacher has something to give to another. Another important difference is that VERME mentoring is based on group meetings between more experienced and novice teachers, instead of one-to-one discussions. In VERME groups, people not only share experiences and expertise, but also problems they have met in their work.

VERME is for newly qualified teachers and for those who return to teaching job after a pause of some years. Besides of teachers, the groups are open for any professional working in education, such as counselors and school assistants.

VERME project 2010 in Eastern Finland: “A new project has been planned to develop support for newly qualified teachers in collaboration with University of Joensuu and the major cities in Eastern Finland, Joensuu, Kuopio, Mikkeli, Pieksämäki, Savonlinna and Yarvats. The project plan is in progress and will be executed in collaboration with the Department of Applied Education of University of Joensuu and Savonlinna Centre for Continuing Education and Regional Development”.

VERME collaborates with an international network Newly Qualified Teachers in Northern Europe (NQTNE, http://www.hig.se/p-inst/nqtne). NQTNE does research and development work to develop various ways of supporting newly qualified teachers, organises conferences and symposiums, and publishes scientific publications. The NQTNE-network was initiated by participants from the University of Gävle (Sweden); University of Jyväskylä (Finland); CVU Storkøbenhavn University College (Denmark); University College of Telemark and University College of Oslo (Norway); Tallinn University and University of Tartu (Estonia).

During 2009-2012, NQTNE is running the NQT-COME project, which is an international project launched by the NQTNE network and funded by the Nordplus Horizontal programme. In the project, there are representatives of teacher education and educational research institutes, teacher unions and municipalities. The aim of the project is to promote professional learning of newly qualified teachers in the induction phase through developing systems of support. One of the most promising methods to
promote new teacher's professional learning is mentoring, in its various forms, including one-to-one mentoring, peer mentoring and group mentoring. The project focuses on sharing research based evidence and best practices of mentoring through a series of seminars and workshops for mentors, researchers and teacher educators.

**Bavaria**

In Bavaria, there is a very systematic – some would argue a far too systematic, long and strict – approach to induction. It is often described as “life lectures that don’t break you, make you stronger”, implying that many NQTs consider their induction period as one of the most difficult times of their lives. Unfortunately, many NQTs quit due to the work load and, first and foremost, psychological pressure.

The structure of induction can be described as follows:

- **Induction period:** 2 years of teacher training: trainee status
- **At grammar and middle schools divided into 3 phases at minimum 2 different schools:**
  - seminar school / HQ school / home school: 1st semester
    - 50%: theoretical background in 6-7 seminars: 2-3 subjects, psychology, pedagogy, political education and education
    - 50%: teaching: first 6 weeks: auditing + “teaching attempts” (i.e. 3 lessons in each subject); feedback from your seminar instructor, then the trainee takes over 2-3 classes (one in each subject), 6-8 lessons/week, with a mentor for feedback:
      - Assessment: 1st teaching exam
  - Einsatzschule / away school / mission school?: 2nd&3rd semester
    - NQTs sent away to a different school: more independence, less control, less feedback, two mentoring teachers who leave them alone most of the time (“survival training”), 3-4 classes, 11-16 lessons/week,
    - Assessment: 2nd teaching exam, 2nd thesis (after the one at University)
  - Return to seminar school: 4th semester
    - Seminars, 2-3 classes, 6-8 lessons/week,
    - Assessment: 3rd teaching exam, oral finals in your seminars, final evaluation report

All sums up to grade of the 2nd state exam

After their induction period, newly qualified teachers can either apply to private schools (advantage: free choice of location; disadvantage: no status as civil servant) or hope to be allocated to a school by the Ministry of Culture & Education (according to the GPA ranking of the year).

**Hungary**

In Hungary no formal induction period is formatted for newly qualified teachers, either. However, all NQTs get an experienced teacher as their mentor. This mentor guides the beginning teacher, observes his/her lessons and helps with his/her professional development. Together they assess the needs of the novice teacher and the mentor helps to formulate and reach these goals. There has been no officially recognized systematic approach to induction, each school does it on its own way. If a newly qualified teacher
  - cooperates with his colleagues and seeks opportunities for this cooperation
  - demonstrates his devotion towards his professional development by revealing his needs and asking for help
  - by providing optimal learning environment in the classroom
  - by effectively treating students with special needs
  - by keeping in contact with pupils’ parents
he can meet the standards expected from him by the end of his first year at work.

There are some plans in Hungary to set up an induction period during the last training period. However, this would not be an induction period because a formal induction period usually takes place after initial teacher training.
Scotland

In Scotland novice teachers are not yet fully qualified as a teacher when they have finished teacher education. To gain a full teacher qualification they have to go through a probation period. They have the choice to follow the Teacher Induction Scheme (TIS). This will guarantee them a one-year teaching post in which they have a 70% teaching load of that of a full time teacher and are provided with a mentor (European Commission Staff working Document SEC., 2010). Furthermore, they work on their professional development by preparing a portfolio of their work and by participating in action research projects. Their teaching will be observed by their mentor and other senior colleagues and educational authorities organise in-service meetings and courses for their NQT’s. At the end of the probationary period teachers can be granted with full teacher registration, the probationary period can be extended or the provisional registration can be cancelled.

Taking into consideration the conditions required for a successful implementation of an induction programme highlighted by the Handbook for Policymakers, the project partners came to some of the following conclusions. Although there are not formal induction programmes in most of our countries, informally a lot has been done in order to support NQTs. There is some time allowance for mentors, they have to teach less lessons than their colleagues, and if the schoolhead has the possibility in the school budget, he provides extra salary for the recognition of mentors’ work and responsibilities. Unfortunately, NQTs are not supported by reduction of teaching load (number of lessons) or by not giving them tutorship (being a classmaster) with the exception of the Netherlands. They have not got the possibility to change classes (a very problematic one to a less problematic) or the possibility to teach parallel classes to lessen the preparation time. Fortunately, if it is possible they teach classes parallel with an experienced colleague. Only in Finland and in the Netherlands can they have an advantageous timetable, meaning no lessons scheduled for the late afternoon hours. The only support NQTs could get in every project partner’s country was that they were provided a quiet, good place for work in the staffroom. Although clear roles and responsibilities of stakeholders were not defined in most of the cases, there have been some positive steps into this direction (e.g. descriptions of required competences). Almost nothing has been done in connection with the co-operation between different elements of the system, (induction as part of a continuum: building on ITE and feeding into CPD). Very little has been acknowledged about the school culture, where beginning teachers are treated as assets, change agents to school, despite the fact that informally something is done to keep them in the profession. A lot has to be done in each partner’s country about this issue. Similarly, a lot of work is required in connection with mentor training, mentors’ inter-personal skills, communication, the school’s policy on supporting novice teachers, stakeholders’ commitment to evidence-informed practice. All these issues are challenges for the future.

Conclusions for the implementation of national induction systems in participating countries

In the Netherlands three different types of teacher education for secondary education exist and the graduates of all these teacher educations have different needs in their professional development. First of all students who finished the educative minor with a qualification to teach in lower secondary education are qualified to teach in a wide range of tracks. If the school policy requires teachers to be able to work in all the tracks they should provide learning opportunities and support to develop knowledge and skills of the different pupil populations. The developmental psychology of young adolescents and classroom management should be considered as the focus of the induction period. Furthermore, the cognitive and the socio-emotional development of the young adolescent and the translation of this knowledge to practice should direct the choice and the content of professional development activities. For the second degree teachers a focus on subject content knowledge in induction arrangements should be considered. This teacher education track combines to a more extent subject, practice and pedagogical content knowledge compared to the other studied European teacher educations. This is the only track provided by a non-university institution. In the Netherlands this track yields 2 thirds of the secondary teacher population. These teachers teach the same pupil population as the educative minor teachers. Therefore, it can be recommended that the same focus should be set up, but the assumption can be made that these teachers master a more advanced stage of teacher behaviour than the educative minor teachers and the induction programme should be adapted to this stage. Additionally, inquiry-based teaching deserves extra attention in the later phase of the induction period. The first degree teachers have less practical experience compared to the Dutch second degree teachers. The induction arrangement should therefore focus on the practical experiences of this group (peer discussion groups, attention for classroom management issues,
gradual increase of responsibilities and contact hours with pupils). The content of the support could focus on the translation of theoretical knowledge to practice. Attention should be paid to the mental workload.

Teacher education in the Czech Republic provides less practical experience compared to the rest of the countries studied. Therefore, a focus on the extension of practical experiences of this group (peer discussion groups, attention for classroom management issues, gradual increase of responsibilities and contact hours with pupils) could be considered for induction arrangements. The content of the support could focus on the translation of theoretical knowledge to practice. Attention to the mental workload is also a good suggestion for Czech beginning teachers. The teachers are educated to teach two subjects, therefore it is recommended to focus on subject knowledge during the induction period (regular meetings with subject coach, teaching of parallel classes with experienced colleague, offering subject related workshops, offering access to relevant literature).

The teacher education system of Finland provides ample practical experience. This teaching practice, however, always takes place in affiliated schools. This means that Finnish newly qualified teachers are used to a safe teaching setting. Introduction into the school environment and getting acquainted with rules, customs, personnel and the own responsibilities should therefore be considered for Finnish induction arrangements. The system does not necessitate further recommendations for induction arrangements.

In Slovakia the number of teacher candidates exceeds the available educational training capacities. Drop-out rates are therefore expected to be low and students should show a greater motivation. The teachers are educated to teach two subjects. It might therefore be advantageous to focus on subject knowledge during the induction period (regular meetings with subject coach, teaching of parallel classes with an experienced colleague, offering subject related workshops, offering access to relevant literature). Induction is already a nationwide component of the initiation into the profession and besides some pieces of advice for optimizing this programme no further recommendations for induction arrangements can be made.

The teacher education system of Bavaria (Germany) provides ample practical experience. The teachers are educated to teach two subjects. It might therefore be useful to focus on subject knowledge during the induction period. Some striking facts about teacher education in Germany show that a relatively small amount of students graduated in 2007 from teacher education. This can be explained by the finding that longer study programmes tend to yield less graduates than shorter study programmes (OECD, 2009). However, the percentage of current teachers in Germany that is over the age of 50 is very high and a lot of new teachers are needed in that country. Furthermore, a weakness of the German teacher education system is that each state has its own method to train teachers, which makes transitions of teachers between states more difficult. Therefore, the focus of the induction arrangement could be on more transition opportunities and shorter initial teacher training trajectories should be reconsidered.

In Scotland induction is a nationwide component of the initiation into the profession. The system does not necessitate extra recommendations for induction arrangements.

Teachers in Hungary are educated to teach two subjects. It might therefore be useful to focus on subject knowledge (regular meetings with subject coach, teaching of parallel classes with experienced colleague, offering subject related workshops, offering access to relevant literature) during the induction period. Mentoring is already a standard for newly qualified teachers in Hungary, but this could be expanded with more induction activities.

The length of initial teacher education is different in project partner countries which may indicate that different induction systems are required. Among participating countries it was not a debated issue that the system in Scotland is the most developed. The Bavarian system is a solution to induction as well, but it takes place during initial teacher education and that makes teacher training a longlasting and expensive process. Each country and its policymakers should take into consideration the financial issues of induction and provide the different kinds of support that are missing from the present systems. Furthermore, the conception of the professional development from ITE to CDP must be worked out in the framework of lifelong learning together with the clear roles and responsibilities of stakeholders. What is more, teacher shortages are ahead and it is important to have a school culture where everybody is aware of its dangers. The good steps taken towards mentor trainings must be speeded up in the near future. Learning from each other sharing similar problems and learning from the more developed systems is beneficial for all project partners. This way we can have deeper insight and broader perspectives to find right solutions for our country-specific induction programmes.
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BEVEZETŐ GYAKORLATOK EURÓPÁBAN: EGYMÁSTÓL TANULVA

Summary
A dolgozat célja annak a folyamatnak a bemutatása, melynek során a bevezető szakaszban Európában felléphető jó gyakorlatokat gyűjtöttük össze az Európai Unió által finanszírozott INNOTE projekt keretében. A projekt célja, hogy a partnerországok jó gyakorlatai talaján új modellcset generáljon a szakmai fejlődés támogatására.

Az első rész betekintést enged a munka elméleti hátterébe, az Unió szakemberei által kidolgozott Közikönyv a oktatáspolitikusoknak-a bevezető szakasz programjaiba .A dolgozat ennek rövid kivonatát tartalmazza főbb útmutatásaival együtt.

A második rész a partnerországokban gyakorlatban megtalálható hasonlóságokat és különbségeket mutatja be. Részletesen bemutatásra kerülnek a mentorokkal és a pályakezdőkkel végzett munka konklúziói.

Az utolsó részben mutatjuk be mit találtunk munkánk folyamán, mit tanultunk egymástól és hogyan tudjuk alkalmazni mindennapi gyakorlatunkhoz igazítva.

A tanárképzés különböző hosszúságú időtartamokat vesz igénybe a különböző országokban mely különböző hosszúságú bevezető szakaszokat tesz szükségessé. A résztvevő országok egyetértettek abban, hogy a skót rendszer tűnik a legfejlettebbnek. A bajor példa is egyfajta megoldást kínál, de hosszú és költséges.

Minden országnak és oktatáspolitikusának figyelembe kell vennie a pénzügyi vonatkozásokon túl a szakmai elvárásokat, a tiszta szerepkörökét, a mentorképzés fontosságát.

Azzal, hogy hasonló problémáinkról, a fejlettebb rendszerek megismeréséről eszmét cserélhetünk, egymástól tanulhattunk, nagyobb betekintést, tájékozottságot , szélesebb látókört nyertünk, valamennyiünknek segíthet kidolgozni ország-specifikus bevezető szakaszunkat .
3. To assess the constraints in the implementation of ESD in secondary education.
4. To delineate the role of Educators in implementing ESD.
5. To identify the appropriate support required for mainstreaming ESD in secondary education.

4. Research Methodology

A qualitative approach, using unstructured interviews, was consequently deemed to be more adapted for the research being carried out.

Unstructured interviews proved to be appropriate for this research since it allowed gathering of in-depth information needed to reach the objectives set. This allowed gaining an insight in Educators’ interpretation of ESD. As is characteristic of unstructured interviews (Moore, 2001), supplementary questions could be used to probe further into the Educators’ knowledge of the subject. Confusions could be moreover cleared since it was a face-to-face conversation. Whenever questions were not clear, they could be rephrased or clarified. Interviewees could be, furthermore, encouraged to extrapolate on certain issues by further questions.

This kind of interview gave an idea of what areas needed to be covered in this particular research. Since the questions were not rigid or standard, it allowed gaining thorough information (Moore, 2001). Interviewees could develop their opinions at length and share their experiences freely. They could also add any information which seemed important for them, even if it was not directly linked to the question initially.

Three main questions were identified for the purpose of this study. They were aimed at finding out what were the Educators’ perceptions of the contribution of ESD in secondary schools, what were the barriers and support required to its implementation. Wherever the flow of information stilted, supplementary questions were asked to gain in-depth understanding of Educators’ perceptions and opinions.

Thirty Educators from seven State Secondary Schools were contacted. Convenience sampling was opted for since the interviewees were persons that could be easily contacted, are reliable and were willing to be interviewed. Thirty Educators were deemed enough for this study since it was made sure that at least one educator from different subjects taught at secondary level was interviewed. Moreover, Educators work according to a transfer system manned by the Zone Directorates. Therefore, all the Educators interviewed have worked in a minimum of 2 state schools. Hence, the sample is representative of the State Secondary Educators’ population.

5. Understanding the Meaning of ESD

Singh (2011) in his study about value education has stated that there is no one correct interpretation of ESD. This explains the lack of consensus as far as ESD is concerned and thus there is no universal definition of ESD (Yang, Lam and Wong, 2010). There are, furthermore, many terms to define the education that addresses SD. Shallcross and Robinson (2007) encountered terms like environment education, education for sustainability as well as education for sustainable development. This is to a certain extent due to the fact that the concept is complex, contested and continually evolving (Elshof, 2005; Down, 2006; Landorf, Doscher and Rocco, 2008).

ESD as pointed out by Shallcross and Robinson (2007, p.139), is “a process of journeying towards sustainability”. This is also supported by McKeown (2002), who pinpoints to the fact that ESD provides individuals with the necessary knowledge and skills, which gear them towards lifelong learning, thus helping them manage the environmental, social and economic challenges bound to spring in their life. This argument is also supported by Tormey et al (2008). ESD for Holbrook (2009) is about developing social and personal aptitudes, which will eventually result in responsible citizenship. ESD is regarded as a strategy to deal with unsustainable development patterns by De Haan, Bormann and Leicht (2010). There is no distinct definition of ESD as purport De Haan et al (2010) but the definition is nevertheless consistent, implying a change in knowledge, attitudes, behaviours and values (Shallcross and Robinson, 2007). However, for its implementation, a working definition is a prerequisite.

ESD looks at the inter-linkages between society, economy and environment (De Haan et al, 2010). The goal of Education for sustainable development is to establish locally relevant and culturally appropriate approaches guided by the values and principles that are inherent in sustainable development (UNESCO, 2005). ESD, furthermore, accommodates the evolving nature of the concept of sustainability. ESD sets as prime objective the promotion of sustainable life patterns (Mammino, 2011). It promotes
participatory learning and higher-order thinking skills through pedagogical techniques. It also takes into account the context, global issues and local priorities (UNESCO, 2005; Shallcross and Robinson, 2007).

It is also recognised by the international community that it is through education that the values, behaviour and lifestyles for a sustainable future can be fostered. Education is seen as the driving force for bringing such changes (Kevany, 2007; United Nations, 2009).

6. Literature Review

Sustainable development is becoming a very common term nowadays (Golob, 2009). There was a growing concern about the impact of human society on nature (Kevany, 2007) and from this concern has emerged the concept of sustainable development (SD) in the 1980s.

The 21st century requires youngsters with entrepreneurial skills (Madumere-Obike, 2010). Pigozzi (2010) calls for secondary and primary education to focus on the development of 21st century skills to prepare the latter for their lives beyond formal education. Students cannot make the vital connections between what they learn and their own life experiences. Education cannot remain traditional where there is only transmission of knowledge, information and values (Uzzell, 1999). Conventional methods of teaching and learning will hence not fit the needs for the development of a sustainable society. Learning should enable learners to develop their ability to make sound choices (Sund and Wickman, 2008).

6.1 Challenges and Barriers

Velazquez et al (2005) in their study have highlighted a series of barriers that have deterred sustainability in higher institutions. These barriers are, namely, the lack of awareness, support, funding, organisational structure, time factor, standard definitions of concept, training, policies, information as well as resistance to change among others. Mckeown’s (2002) as well as Shallcross and Robinson (2007) highlighted the fact that lack of awareness has impeded on the progress of ESD. This fact is also revealed by Madumere-obike (2010) in his study on public and private secondary schools in Abia State, Nigeria. Lack of methods is another barrier to ESD as Klavins and Pelnena (2010) put forward.

As Velazquez et al (2005) had explained, the organisational structure being bureaucratic, decisions are slow thus delaying progress of ESD. The formal educational system similarly proves to be an obstacle in endeavours for incorporating sustainable issues in education. Its rigid and highly bureaucratic structure deters initiatives towards sustainability. Educators need the proper resources as well as incentives to come out of the traditional educational structures (Svanström, Lozano-Garcia and Rowe, 2008). Moreover, Educators have to follow the official curriculum rather than develop a school-based curriculum which responds to the needs of the students according to Yang, Lam and Wong (2010) in their study on secondary teachers’ beliefs about ESD in China.

Time constraint has been perceived as a major constraint in integrating ESD (Dawe, Jucker and Martin, 2005; Velazquez et al, 2005; Down, 2006). The already restricted time-table and the constraints of the context make it difficult to change the way lectures are delivered in universities (Tormey et al, 2008). During the study done by Hopkinson and James (2010), the crowded curriculum has been identified as a key barrier. This is sustained by various other studies (Down, 2006; Reunamo and Pipere, 2011). Holbrook (2009) suggests more flexibility in the time-tables. More time should be allocated for field trips and work.

The irrelevancy of ESD to certain disciplines is also identified as deterring its application to learning (Dawe et al, 2005; Velazquez et al, 2005). Reid and Petocz (2006) as well as Winter (2007) conversely mention the lack of understanding as hampering the efforts of academics in engaging in ESD. Sustainability is too abstract and far from reality (Filho, 2000), thus Educators find it difficult to integrate in their teaching. It requires the acquisition of new knowledge. More so, attitudes and behaviour have to undergo changes. Quite a number of studies on higher education have pinpointed lecturers’ beliefs and attitudes as considerable barriers to the implementation of ESD (Dawe et al, 2005; Velazquez et al, 2005; Lozano, 2006). Moreover, Down (2006) emphasises on lecturers’ area of expertise as a constraint. She explains that according to her findings, lecturers could not teach topics that were outside their area of expertise.

The collaboration and involvement of everyone should be sought for the common good (Zhang, 2010). ESD should be everybody’s concern. Sustainable actions are the responsibility of each and everyone but at the same time better actions can be brought about if they are supported by a societal framework. Down (2006) brought to light that lack of support from government and community made lecturers feel isolated. She also argued that conferences, journals and international networks could be of help to lecturers. As
has been emphasised by Hopkinson et al (2008), students and teachers do not have access to information about effectiveness and success of ESD initiatives. There should be information sharing at all levels. In Winter’s study (2007), it was put forward that information improperly disseminated was among the reasons for slow progress in ESD. In the same study, teachers’ workload and the fact that the term ESD was complex proved to be major hurdles.

Hopkinson et al (2008) have highlighted lack of students’ interest and slow pace of curriculum review processes as barriers to engagement of ESD. It has also been found that policy commitment allowed the integration of ESD. Similarly, it was found that for ESD to be mainstreamed into education, it has to be integrated into the educational policies and get proper support from the government, the local community and main stakeholders (Varga et al, 2007). Various studies have shown that lack of support leads to failure of ESD. Shallcross and Robinson (2007) talk about lack of support from Ministries as well as lack of coordination between Ministries.

Winter (2007) claims that educational policies are political thus serving political purposes. Thus she posits that political restructuring is important for a more sustainable world. Holbrook (2009) goes further when he talks of political will and partnerships for the success of the transformation needed for SD. Pigozzi (2010) also supports this view. Liu (2009) recommended that Ministries of Education created policy and professional development programmes to promote ESD. Varga et al (2007) too claim that integrating ESD into educational policies will help mainstreaming ESD.

In countries where there is a proper framework, ESD is being successfully integrated into the teaching and learning processes. There exists for instance in China, an organisational structure whereby a mechanism has been established, ensuring the programme is implemented as a shared venture (Zhang, 2010). Through pilot projects, the Chinese government has tried grounding SD in school realities, bringing students to examine real development issues and lifestyles. Integrating ESD-related activities across the curriculum in various subjects have stimulated the creativity of students, fostering cooperative problem-solving (Zhang, 2010). In Ireland, there exists a regional centre of expertise (RCE-Ireland) where all stakeholders are members and which aims at having a regional learning space to ensure that ESD is integrated at all the levels of education (Tormey et al, 2008).

Similarly the development of ESD has been shaped by the Japanese Government through government supported projects at university level. ESD policies have further contributed towards ESD practices in Japan (Nomura and Abe, 2009). However, according to the study of Niu et al (2010), though in China ESD has been acknowledged as the facilitator for the national struggle for quality education, more changes in the educational policies for higher education are needed to put into practice the vision of these policies. Higher education and educational policies are not able to cater for the rapid economic development in China (Niu et al, 2010).

Winter (2007) in her study on ESD in secondary curriculum in English schools, mentions how schools have concretely incorporated ESD activities on environmental and global topics present in the National Curriculum. However, she also highlights the difficulties of long-term activities such as litter-picking, planting and recycling since they are not only time consuming, costly but they can also be questioned about their educational value and the fact that schools should take up those responsibility not students and teachers.

The concrete implementation of ESD in schools implies pedagogical challenges. Training is hence primordial to the success of ESD (Filho, 2000; Zhang, 2010). China is the example showing how training promotes ESD. Zhang’s study (2010) explains how in Beijing, ESD has become an accredited training programme among in-service teachers since 2007. Special training programmes have been organised for teachers and school principals for ESD activities to be a success. According to the same author, well-designed and continued training is critical to bringing best practice and fostering new directions. With training, ESD practitioners are well informed and equipped.

Educators need to be familiarised with innovative pedagogical approaches. It is of utmost importance that they can adapt the practices and thereafter integrate successfully ESD in their instruction. Similarly, according to Elshof (2005), pre and in-service professional development has been judged primordial to change the perception of Educators. According to findings in Elshof’s study (2005), technological studies teachers say they preferred having workshops and activities where business and industry practitioners were present and best practices shared.

Content and methodology are important for global sustainability (Tormey et al, 2008). Innovative technological education can capture the minds of the young generation (Elshof, 2005). The use of ICTs can thus open up avenues whereby innovative and creative pedagogical approaches can be used for ESD.