



Focus on: e-Learning: requirement of the disciplines

Inclusive education: strategies and opportunities for preparing teachers through the use of ICT in the Italian compulsory school

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The focus of this paper is on the importance of preparing teachers for inclusive education through the acquisition of disciplinary competencies and integrated and strategic use of educational technology. The inclusion is a crucial part of the school at the base of the principle of equal opportunities. The paper analyzes the use of ICT in the Italian scenario – to support the learning of learners with disabilities and special educational needs in inclusive settings within the compulsory school sector. The Article 40 of the Salamanca Framework for Action indicates “Appropriate preparation of all educational personnel stands out as a key factor in promoting progress towards inclusive schools”. This means that teachers need to learn the strategies to promote diversity and inclusion strategies in a learning environment for all students, including students with special needs to grow.

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1 Introduction

The inclusive education represents a significant change in the world of school and more generally of all the educational settings. To promote the integration of students with special needs in the group of their peers, schools are required to adapt to accommodate a heterogeneous group of students with a variety of needs. In the European scenario, educational policies have tried to cope with the challenges posed by new technologies to meet the needs of those with special educational needs. Teacher competencies have been defined in the Joint Interim Report by the Education Council and the European Commission on Progress towards Education and Training 2010¹. Here we can read: “as ICT use becomes more pervasive in people’s lives, these issues should be explicitly addressed in teaching and learning. The potential of new technologies for enhancing innovation and creativity, new partnerships and for personalising learning needs to be better exploited” (p. 7).

The needs and challenges of inclusive education were addressed through training of teachers, defined Within the Bologna Study Programme Reform. In addition, the European Council also defined the core competencies of teachers². Specifically, they should be able to work with:

- information, technology and knowledge;
- their fellow human beings – learners, colleagues and other partners in education;
- and in society - at local, regional, national, European and broader global levels.

Even though such hard work, the dilemma of training and actual development in inclusive educational settings resides on the fact that the educational interventions often gave exclusive priority to training in the use of tools, with little or no methodological reflection as to their application in teaching.

ICTs represent a powerful tool for supporting and promoting inclusive practice. It provides extensive support to promote communication and learning. ICTs help to break down some of the barriers that lead to under-achievement and educational exclusion (Becta, 2007).

On a national level, many initiatives focused on the use of ICT as a tool for promoting equity in educational opportunities have been undertaken in order to experiment the application of new teaching models.

In the course of recent years, especially after the legislation of scholastic autonomy, various strategic actions, oriented toward the education of teachers

¹ Education & Training 2010, from <http://register.consilium.europa.eu/pdf/en/10/st05/st05394.en10.pdf>

² Common European Principles for Teacher Competences and Qualifications, from http://www.see-educoop.net/education_in/pdf/01-en_principles_en.pdf

on the informed and strategic use of didactic technologies fostering inclusive teaching, were promoted to ministerial level.

Teachers should be able to cope effectively innovations that have affected the scope of teaching methods and learning concepts. So, for them is asked to design a teaching that facilitates learning and make it meaningful for students. The latest development of innovative educational technologies have provided new possibilities for teaching, but at the same time called for greater powers for teachers to learn how to use these new technologies in instructional design. These challenges require teachers to retrain themselves and continually acquire new knowledge and skills, while maintaining their work. These challenges ask teachers to continuously retrain themselves and acquire new knowledge and skills while maintaining their jobs (Jung, 2005).

2 Principles and strategies for training teachers to inclusive education

The 48th International Conference on Education, Inclusive Education: *The Way of the Future* (UNESCO IBE, 2008), recognized teacher education as a key area for future development³.

As stated by Peters (2004), a successful teacher training for inclusion can be promoted through the following guidelines mentioned by Verity Donnelly and Amanda Watkins (Donnelly & Watkins, 2011):

- Special and general education teacher training are integrated and/or complementary.
- Teachers learn innovative child-centred strategies to teach children with a diverse range of abilities, as well as strategies that promote active student learning and adaptations to meet individual student needs.
- Teachers learn curriculum development strategies that encompass broad common goals, facilitate flexible structure, provide alternative/multiple assessments based on individual progress, and also address cultural, religious, and linguistic diversity and content, with knowledge and skills that are relevant to learners' lives.
- Teacher training provides hands-on experiences and opportunities for critical reflection as well as continuous/ongoing feedback and support in classrooms.

Starting from abovementioned guidelines, it's possible to state that teachers have to learn that they are co-developers of an inclusive curriculum: this means, as Renato Operti and Jayne Brady suggest, that "teachers should be *active agents* in analysing their own practices and their own students' progress and should be actively involved in formulating policy. This view implies that

³ <http://www.ibe.unesco.org/en/ice/48th-ice-2008/conclusions-and-recommendations.html>

inclusive teachers need to be recognized, engaged, and empowered as teachers who will co-develop an inclusive curriculum. As such, their confidence, competencies, knowledge, and positive attitudes can invaluablely reinforce the principles of inclusion and inclusive curricula. This is essential if teachers are to develop a sense of value and ownership regarding inclusion, within their own local, national, and regional context” (Operti & Brady, 2011, p. 453).

Despite all these guidelines and all occasions and plans for training on inclusive education aimed at teachers, many of them report that they feel unprepared to work effectively with these students. The effectiveness of teachers is closely linked to student achievement, therefore, should be avoided that they can perceive themselves inadequate to the challenges posed by everyday educational contexts. However, teacher educators face their own challenges when trying to keep up with recent literature and a rapidly expanding knowledge base. Web-based technology suggests solutions to some of these challenges, yet not all web-based resources are valid or reliable (Smith & Tyler, 2011).

2.1 The main developments in pedagogical approaches for using ICT

In the Italian field of education, the main developments for the use of ICT, and particularly the strategies aimed at teacher training and strategic informed use of educational technology for increased inclusive education move in two main directions:

1. financial funding suitable for investment in technologies with the purpose of favouring a diffusive use, in a geographic and curricular sense, of the teaching technologies (national plans for investment in IWBs, also with EU funding);
2. technical and financial support for the achievement of didactic-educational planning in every school grade and order with the purpose of defining and validating didactic intervention models using ICTs (Cl@ssi 2.0; School 2.0; National Digital School plan, with validity on the “Italian Digital Agenda⁴”, the national branch of the “European Digital Agenda⁵”).

Furthermore, the MIUR (Ministry of University and Research) finances the scholastic network of Local Support Centres⁶ so that they may be equipped with

⁴ <http://www.agenda-digitale.it/>

⁵ <http://ec.europa.eu/digital-agenda/>

⁶ On the national territory were founded 92 Local Support Centres. In support of the Local Support Centres, the Ministry schedules meetings between the regional representatives and the Centres’ operators for training and discussion on the subject of disability.

The objectives of the Local Support Centres are:

- the valorisation of the role that new technologies may bestow on the scholastic assimilation of disabled students;

specific hardware and software that promote inclusive teaching, with particular reference to Special Educational Needs.

In accordance with actions 4 and 5 of the ministerial project *New Technologies and Disability*⁷, the first public network of help centres Local Support Centres was founded. This network, which is evenly distributed across all of Italian territory, offers counselling and training to teachers, parents and students on the topic of applied technologies in support of disabled students.

The establishment and operation of the Local Support Centres was defined by actions 4 and 5 of the abovementioned project. The following are the goals of the cited actions:

- Action 4: To create a permanent territorial network that enables the accumulation, conservation and diffusion of knowledge (good practices, educational courses) and resources (hardware and software) in favour of the didactic integration of disabled students using New Technologies. The network must be able to concretely sustain schools in their purchase and efficient use of new technologies for scholastic integration.
- Action 5: To activate local educational initiatives for the correct use of technologies intended for teachers and other scholastic employees, as well as parents and the disabled students themselves.

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- the creation of a permanent territorial network that enables the accumulation, preservation and diffusion of knowledge (good practices, educational courses) and resources (hardware and software) in favour of the didactic integration of disabled students using new technologies;
 - the support of scholastic institutions in the purchase and efficient use of new technologies for scholastic integration.

The roles and functions of the Local Support Centres were recently reaffirmed in the Guidelines provided for under article 3 of Ministerial Decree 5669 dated 12 July 2011. More specifically, the Guidelines requires that the Regional Scholastic Offices see to the strengthening of the Local Support Centres for technologies and disability, by both incrementing their resources (subsidies and specific technological tools for Learning Disabilities) and further publicizing their function as points of demonstration. Moreover, the Guidelines requires the Regional Scholastic Offices to adequately promote and incentivize the Local Support Centres' actions in support of schools in order to properly respond to the territory's true needs.

The funds allocated in 2012 for the centres' activities were invested in the assistive aids, software and equipment necessary to boost their quality for the benefit of teachers and schools. Throughout 2012 the Local Support Centres consolidated their roles as reference centres for teachers, staff members and families; such reference centres not only serve as aids in the choice of assistive technologies that support the needs of consumers in the field of disability, but in light of the new competences acquired with the implementation decree of Law 170/10, n. 5669 dated 12 July 2011, they have become points of reference for all of the issues related to scholastic integration and to the choice of compensative aids for students with Specific Learning Disabilities (Ministerial Memorandum n. 83 dated 4 October 2012).

In fact, the majority of consulting and Local Support Centres activities are dedicated to the schools and teachers in need of help regarding the scholastic integration of students with Learning Disabilities, as well as the intervention requests made by the families provided for under Regional Law n. 8 dated 12 May 2009 Regulations on Specific Learning Disabilities. In spite of such efforts, the problem of training and actual development in inclusive educational settings dwells on the fact that the educational interventions that were conducted in the company of the described strategic actions often gave exclusive priority to training in the use of tools, with little or no methodological reflection as to their application in teaching.

⁷ MIUR – Dipartimento per l'Istruzione – Direzione Generale per lo Studente – Nuove Tecnologie e Disabilità - Studio di fattibilità del progetto, in http://archivio.pubblica.istruzione.it/dgstudente/disabilita/ntd/allegati/studio_fattibilita.pdf

The ministerial actions directed toward the introduction of IWBs (Interactive Whiteboard) in Italian schools push teachers toward a strong cultural change that has yet to find adequate support in the field of education. Moreover, the literature shows that there has been everywhere extensive investment by governments and individual schools in interactive whiteboard technology in developed countries premised on the assumption that their use in education will impact positively on learners' achievements (Higgins *et al.*, 2007; Slay *et al.*, 2008).

The actual changes intended by the Ministry were achieved “here and there”, that is, only in the few schools that were able to invest the received training in inclusive teaching with ICT and through the use of specific open source software. On the contrary, the majority of schools used the funding exclusively toward the creation of basic computer courses and to purchase technological devices, which were soon after revealed useless given the lack of adequate training in their precise and informed use. As for the reforms concerning the scholastic world, the repeal of cooperative approaches such as that of ICT is obligatory. Unfortunately however, the failure of careful planning supported by competent staff resulted in the lack of precise training and a sterile, inadequate computer literacy on the part of the teachers, which is not the same as media education.

From an assessment point of view, the evaluation of the ministerial projects was designated entirely for ministerial websites on which the teacher ended up alone and without minimal assistance or supervision of his or her actions. Assessment was too often directed toward the teacher and not the scholastic practice as well.

The Italian Government has launched a series of initiatives⁸ oriented toward

⁸ An example of such initiatives is given by the Cl@ssi 2.0 project, through which the Ministry agreed to offer the possibility of verifying how and how much the learning environment may transform as a result of the constant and diffused use of technology in daily teaching. The Cl@ssi 2.0 action took off during the 2009/2010 scholastic year with 156 middle schools. The institutes were chosen by means of an announcement, divided regionally based on the number of active classes during the 2008/2009 scholastic year and the average number of classes per region. Cl@ssi 2.0 allows the students and teachers to use technological and multimedia devices, and progressively equips the classrooms with apparatus for Internet connection. With the support of INDIRE, the National Institute of Documentation, Innovation and Educational Research, and of a network of University associates, Cl@ssi 2.0 constructs a didactic project for the experimentation of advanced teaching methodologies. The project's logic tends to value the implementation of various innovation models that may generate local diffusion, even among the schools that did not participate in the initiative. The improvement process that the project hopes to promote is composed of multiple levels, from the organizational aspects to those of teaching, to the choice of actions, starting from the analysis of the schools' needs, which may provoke the assimilation of technology into the teaching/learning process (in both instrumental and methodological terms). The focus does not revolve around the technology itself, but rather the innovative dynamics that may be triggered by such.

Another example is that of the project “Interventions for the development of advanced services in the schools of Southern

the introduction of new technologies in the teaching and learning processes of the school environment, more specifically, the use of assistive technologies in support of disadvantaged students, with particular regard to those who are disabled.

3 Training of educational staff in the use of general and specialist ICT for inclusion

The education of the teaching staff and all of the academic staff in contact with students with Special Education Needs is very important for the promotion of inclusive teaching strategic actions using ICT. Such technologies play an increasingly decisive role in the learning process. They ultimately entail a significant change in the work of a teacher, considering the fact that the students would confront a world that is completely different from that of the classroom that has until now been known to them.

During the 2007-2009 period, The Ministry of Public Education approved I CARE⁹, a project involving a strategic action in support of research-action interventions designed for the structuring of inter-institutional networks in order to:

- activate self-assessment practices regarding the “inclusiveness” of social environments into which minors with Special Educational Needs are inserted (the class, scholastic community, family, country);
- define the strategic actions of intervention to improve the qualitative levels identified by the strategic diagnosis carried out during the start-up phase.

In the context of such actions, some of the inter-institutional networks activated and financed by the ministerial measure have proposed and approved the use of ICT to favour the processes of inter-institutional communication and/or improve the index of “inclusiveness” in educational communities. The main goal of the I CARE project was to promote training methods dedicated to the participation of teachers, involved not as mere consignees but as professionals who reflect upon and activate teaching methods geared toward effective inte-

Regions”, funded with CIPE approval on 9 May 2003 n.17, which proposes to develop digital content in support of teaching and to introduce new ICT to the educational and learning processes by substituting the traditional paradigm “Learn ICT” with “ICT to Learn”. Within such project, a field of intervention related to disadvantaged students was identified, for which the creation of a specific project was consequently requested by the Steering Committee – constituted by the Department for Innovation and Technology of the Presidency of the Council of Ministers and by the Ministry of Public Education. The initiative, called “Project E-Inclusion” and oriented toward the elementary and middle schools of the regions defined as Objective 1 (Basilicata, Calabria, Campania, Apulia, Sardinia and Sicily) plus Abruzzo and Molise, proposes to facilitate the integration and inclusion of disadvantaged students in school life through the use of ICT, with particular attention toward disabled students.

⁹ <http://archivio.pubblica.istruzione.it/dgstudente/icare/presentazione.shtml>

gration into normal, everyday school life.

In a context characterized by the autonomy of scholastic institutions, the Ministry agreed to provide work instruction in continuous support of the schools', supervisors' and teachers' initiatives.

The common thread that guided the national I CARE plan to action was the belief that all students have the right to learn.

More recently, in the years 2010-2012, the MIUR approved, as a continuation of project I CARE, the ICF plan – from the OMS model to school planning. In accordance with the model that was already tested for I CARE, the plan called for financing for the inter-institutional networks, awarding those already committed to project I CARE in order to favour the production of models for the application of the ICF tool in the scholastic curriculum. In range of such experiences, the ICT also proved instrumental to the network activity, whose tools were elected to improve the inclusiveness of the environment, even non-scholastic, in regard to bearers of Special Educational Needs.

CI@ssi 2.0 is also one of the projects most focused on the education of teaching staff, not in terms of instrumental literacy directed toward the mere “technical” use of technology, but rather the direction of a methodological-didactic education focused on the integration of technologies intended as indispensable tools in support of inclusive teaching. The project, at least in its intentions and educational goals, was determined to translate training into consolidated educational practices. Unfortunately, this “passage” did not always occur in every region, thus generating once again an “episodic” education.

The education of teachers is currently favoured by the most recent legislative innovations in the field of Specific Learning Disabilities (implementation decree of the Law 170/10 n. 5669 dated 12 July 2011), which gave various incentives to the teachers in the service of compulsory education. Education dedicated to Learning Disabilities promotes inclusive practices, starting from educational paths that require digital and innovative methodological-didactic expertise.

3.1 Initial teacher education and the use ICT to promote inclusive learning

The survey conducted in England and carried out by the Office for Standards in Education (Ofsted, 2008), entitled “*How well new teachers are prepared to teach pupils with learning difficulties and/or disabilities*”, examines the aspects that encourage a good training for intending and newly qualified teachers in preparing them to get together the needs of pupils with learning difficulties and/or disabilities. It recognises the challenge of making sure the training is effective and illustrates how this might be realized successfully.

Nonetheless, the House of Parliament Education and Skills Committee sta-

ted that current systems for training teachers to work within inclusive schools was inadequate. They declared, at the paragraph 294 of the third report of the Select Committee on Education and Skills¹⁰, that “It is unrealistic to expect teachers and other members of the workforce to be able to meet the needs of children with SEN, if they have not received the appropriate training. Particular concerns have been raised with regard to both initial teacher training and continuing professional development for all staff”. The main task of initial teacher education is to prepare people to enter a profession, which accepts individual and collective responsibility for improving the learning and participation of all children (Florian & Rouse, 2009).

Today, the development of technical competences tied to the use of ICT is the first necessary step in educating teachers, but such is not the final destination; the ultimate goal is to construct teacher professionalism.

In the Italian system, numerous reforms have radically changed the initial training of teachers. Secretary Mariastella Gelmini signed the Decree 10 September 2010, n. 249 about the Initial Teacher Training Regulations, which were essentially founded on four fundamental principles, among which there is particular emphasis on new technologies and a careful, focused preparation for the integration of disabled students.

The following constitutes an integral part of the educational paths for the initial training of teachers:

- the acquisition of linguistic proficiency in the English language at level B2, as required by the “Common European Framework of Reference for Languages” adopted in 1996 by the European Council.
- the acquisition of the digital competences required by the Recommendation of the European Parliament and of the Council dated 18 December 2006. More specifically, such competences abide by the capacity to utilize multimedia languages for the representation and communication of knowledge, the use of digital content, and more generally, the use of simulation and virtual laboratory environments. In order to extend full fruition of such to students with special educational needs, the digital content must be defined in accordance with the criteria that ensure its accessibility for all students.

With the new system, specific attention was given to the issues of disabled students for the first time, calling for training sessions, in all courses, that are capable of providing teachers with basic preparation on special needs. Currently, the initial training of teachers does not provide them with the competences necessary to use ICT to promote inclusive learning in their teaching. The new

¹⁰ European Agency for the Development of Special Needs Education. (2006). Inclusive education and classroom practice. Retrieved January 2009, from http://www.european-agency.org/iecp/iecp_intro.htm.

law (2010) concerning the initial training of teachers contains only a general suggestion, as it establishes that each teacher involved in the TFA course (Tirocinio formativo attivo – teachers in training) must know about Special Educational Needs and the role of technology in promoting inclusive learning. For this reason, Italy should encourage policies that are sensitive to teachers' training needs in regard to SEN.

4 The main developments in hardware and software to support Inclusive learning

Despite the current emphasis on inclusive education with ICT in the school environment, the review of existing literature indicates a lack of attention to the application of ICT in people with special educational needs (Istemic Starcic, 2010).

A good number of hardware and software is designed for the mainstream population and does not pay sufficient attention to a wide range of capabilities and to people with disabilities (Wong *et al.*, 2009).

In reference to hardware and software as didactic support, more specifically as special educational support, numerous actions were undertaken on a ministerial level. In addition to the Cl@ssi 2.0 project mentioned above, the “Scholarly Digital Publishing”¹¹ project within the macro intervention “Digital School” was approved. This action is part of the activity plan of the European Digital Agenda provided by the notification dated 5 May 2010 of the European Commission, and part of the action plan approved by the Italian Government to improve literacy, proficiency and inclusion in the digital world.

The Action Guidelines, written by a technical-scientific committee, call for multimedia products whose individual components may be utilized by teachers in the development of customized teaching material. The project aims for the acquisition of “scholarly digital edition” prototypes that enable effective interaction with digital technologies and contribute to the creation of new learning environments. The purpose of the Scholarly Digital Publishing project is to experiment digital content for both individual and group study. The initiative additionally serves as an action trigger in the world of publishing to inspire the creation of innovative publishing products. The plan involves the acquisition of 20 prototypes, that is, examples of “scholarly digital editions” that cover a significant portion of the curricula. The scholarly digital edition prototypes will be obtained through 20 acquisition procedures issued by numerous Scholastic Institutions diffused across national territory, divided among elementary, middle and high schools as well as polytechnic and professional institutes. Another example in this direction is offered by the Notification for the presentation of

¹¹ <http://www.palazzochigi.it/backoffice/allegati/64075-6910.pdf>

Planning Ideas for Smart Cities and Communities and Social Innovation referred to in the Director's Decree prot. n. 391/Ric dated 5 July 2012, with which the MIUR allots 655.5 million Euros for interventions and for the development of Intelligent Cities throughout national territory. The MIUR identified multiple fields for the development of proposals, including that of the School. More specifically, it calls for the presentation of proposals sustaining the design of innovative devices for students that support both the reading of the electronic book, with suitable screens and resolutions, and the access and use, with architectures open to principal operating systems, of multimedia digital content that is accessible online; a Learning Management System (LMS) capable of supporting all of the management functions necessary for the customization of learning paths, in terms of timetable flexibility and backup for on-site activities, as well as a dynamic group framework and tools for the management of students; Content Management Systems (CMS) that may be integrated into LMS environments, directed toward teachers for the development of multimedia digital content.

A research and development campaign aimed at the institutional prototyping and production of multimedia publishing and inclusive teaching products would be a beneficial solution (useful for Special Educational Needs, foreigners, etc.). A good example of production of multimedia publishing is that of the *Anastasis*. This publishing house proposes software and tools that can improve learning not only for pupils with special needs and can be used autonomously even private user.

4.1 The practical supports for teachers in classrooms to help them in use of ICT to promote inclusive education

From an instrumental point of view, teachers in classrooms are aided by the use of IWBs as well as laptops, PC-netbooks and i-Pads. Such tools are not evenly spread among all schools and in all areas, despite the efforts of national projects in recent years, backed by institutional and scientific networks from the start, to help the schools buy and use them.

From a procedural point of view, in their daily routines, the schools and therefore teachers lack reference and support figures for the informed use of ICT to foster inclusive educational settings. In fact, in the field of autonomous schools, certain individuals that are crucial to the fulfilment of the educational offer were elected by the Teachers College with the purpose of supporting the implementation of the *POF* (Italian acronym of "Educational Offer Plan"). Depending on the specific profile of the educational offer of each scholastic institution, it should be possible to identify a support function specific to the teachers' needs in regard to didactic methodologies based on the ICT; howe-

ver, only a few schools seem to be oriented in such direction. Nevertheless, some scholastic institutions are equipped with a specialized technical staff that provides support in laboratory education. Unfortunately, the training of teachers has never been seen as an integrated activity and has therefore always taken place during afternoon hours, requiring teachers to make an extra effort that goes beyond their working obligation, in a strict sense. The integrated training should take place during curricular hours and thus involve constant familiarization on the part of the expert of the class's daily situations in order to pragmatically resolve the problems observed by teachers. In the practice, this type of setting, which is challenging and significant from a pedagogical point of view, encounters numerous difficulties. In fact, it collides with the duties required for the success of the teaching role on the occasion of the CCNL (Italian acronym of National Collective Employment Agreement). An intervention on the part of political decision-makers, planned with the Union Organizations, is essential to the concrete confrontation of the issue. Therefore, in order to foster high quality inclusive teaching through ICT, the teachers must be appropriately supported in their daily practices. To make such possible, the aspects that render pedagogical and cultural models inclusive in the scholastic context must be identified, together with the difficulties that the teachers may encounter on a daily basis and the role that technological artefacts may have in a real inclusion process. Various ministerial initiatives have planned and continue to plan scaffolding actions for teachers on the part of experts in media education and special education. An additional necessity is that of facilitating the creation of teacher networks for the profitable exchange of information, material and knowledge, thus favouring the development of Communities of Practice where endeavours are mutual, not because everyone shares the same ideas and practices but because such are negotiated collectively.

Conclusions

The training of teachers on inclusive education is the strength and the strategic lever for the promotion of quality education to encourage the integration of people with special needs. ICTs are the preferred way to implement this revolution, provided they are supported by teaching methods specifically designed.

In 2012 The European Agency for Development in Special Needs Education edited a very interesting publication entitled "Teacher Education for Inclusion - Profile of Inclusive Teachers". This document explored how all teachers are prepared during their initial teacher education to be 'inclusive' and involved the collaboration of different country experts, from 25 countries¹². "The expert

¹² Austria, Belgium (both the Flemish and French speaking communities), Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Iceland, Ireland, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal,

group has included policy makers – responsible for teacher education and inclusive education – and both general and specialist teacher educators” (p. 5).

“The Profile provides a framework of areas of competence applicable to any teacher education programme (i.e. not specific to age, phase, sector or any delivery route or method). The areas of competence should be developed during Initial Teacher Education (ITE) and used as a foundation for later professional development. The profile is based on agreed core values that are seen as essential for all teachers working in inclusive education, taking responsibility for all learners. The areas of competence are:

- Valuing learner diversity: difference is considered a resource and an asset to education;
- Supporting all learners: teachers have high expectations for all learners’ achievements;
- Working with others: collaboration and teamwork are essential approaches for all teachers;
- Personal professional development: teaching is a learning activity – teachers take responsibility for their lifelong learning.

Attitudes and beliefs, knowledge and understanding, skills and abilities are set out for each area of competence. The profile is intentionally broad to enable countries to adapt it to relevant local contexts, following debate with a full range of stakeholders”¹³.

The document shows that “profiles of teacher competences – attitudes, knowledge and skills – appear to be an important area for future research into the effectiveness of initial teacher education policy and its implementation”.

The analyses conducted in the present paper allows the definition of the following important future projects to foster the training of teachers to an inclusive learning:

- The incentive for continuous training is in action; evidence of such has already been demonstrated by the Master’s courses for teachers on Special Educational Needs, which include the effective use of technology, and by the addition to the National Collective Labour Contract for Teachers of the obligation to receive training, that is, a course on professional improvement based on a system that assesses teachers, scholastic institutions and the whole academic structure.
- The education of the class of scholastic directors: this represents a fundamental element because it is the School Director who must know how to strategically procure local funds and sponsors to support the school. The School Director must have pedagogical and didactic competences,

Slovenia, Spain, Sweden, Switzerland, United Kingdom (England, Northern Ireland, Scotland and Wales).

¹³ <http://www.european-agency.org/agency-projects/teacher-education-for-inclusion>

and perhaps a teaching past, in order to effectively train a teaching class that is currently elusive.

- The planning of an assessment system for the schools and school directors that is able to synergistically utilize internal and external assessment on paths of continuous improvement; moreover, a system that is founded, where necessary, on actions of Business Process Reengineering that are useful to the generation of effective change, that is, real innovation.

The goal of inclusive education is to allow to every student the chance to learn and participate in a class that provides challenges and opportunities for success. Inclusion programs are difficult to develop because they require significant changes to the manner in which teachers work. In order for successful inclusion to occur, the general education classroom needs to be a place where a range of student abilities is supported and accepted. An effective inclusion takes place when wide-ranging skills are accommodated as an ordinary part of the school day. Teachers in inclusive classrooms must possess the proficiency to informally supervise and assess student skills and needs; set high and appropriate expectations for each student; mutate assignments and activities to meet the needs of all learners; and provide every time success for all students (Mackey, 2012).

REFERENCES

- Becta (2007), *Inclusive learning: an essential guide*. Retrieved April 1, 2013, from <http://www.bee-it.co.uk/Guidance%20Docs/Becta%20Files/Publications/29.%20Inclusive%20learning%20An%20essential%20guide.pdf>
- Florian, L., and Rouse, M. (2009), *The inclusive practice project in Scotland: Teacher education for inclusive education*. *Teaching and Teacher Education*, 25, 4, 594–601.
- Donnelly, V., and Watkins, A. (2011), *Teacher education for inclusion in Europe*. *Prospects*, 41, 3, 341–53.
- Higgins, S., Beauchamp, G., and Miller, D. (2007), *Reviewing the literature on interactive whiteboards*. *Learning, Media and Technology*, 32, 3, 213–225. –
- Istemic Starcic, A. (2010), *Educational technology for the inclusive classroom*. *The Turkish Online Journal of Educational Technology*, 9, 3, 26–37. Retrieved April 1, 2013, from <http://www.tojet.net/articles/933.pdf>
- Jung, I. (2005), *ICT-Pedagogy Integration in Teacher Training: Application Cases Worldwide*. *Educational Technology & Society*, 8, 2, 94–101.
- Mackey, M. (2012), *Middle School Inclusion: Case Studies of Three General Education Teachers*. NERA Conference Proceedings 2012, Paper 20. Retrieved April 1, 2013, from http://digitalcommons.uconn.edu/nera_2012/20

- Office for Standards in Education (Ofsted) (2008), *How well new teachers are prepared to teach pupils with learning difficulties and/or disabilities*. London: Author.
- Opertti, R., and Brady, J. (2011), *Developing inclusive teachers from an inclusive curricular perspective*. *Prospects*, 41, 3, 459–472.
- Peters, S. (2004), *Inclusive education: An EFA strategy for all children*. Washington DC: World Bank.
- Slay, H., Siebörger, I., and Hodgkinson-Williams, C. (2008), *Interactive whiteboards: Real beauty or just lipstick?* *Computers and Education*, 51, 1321–1341.
- Smith, D.D., and Tyler, N.C. (2011), *Effective inclusive education: Equipping education professionals with necessary skills and knowledge*. *Prospects*, 41, 3, 323–339.
- UNESCO IBE (2008), *Conclusions and recommendations of the 48th session of the International Conference on Education (ED/BIE/CONFINTED 48/5)*. Geneva: UNESCO IBE. Retrieved April 1, 2013, from <http://www.ibe.unesco.org/en/ice/48th-ice-2008/conclusions-and-recommendations.html>.
- Wong, A.W.K., Chan, C.C.H., Li-Tsang, C.W.P., Lam, C.S. (2009), *Competence of people with intellectual disabilities on using human–computer interface*. *Research in Developmental Disabilities*, 30, 107–123.