

Examination on ICT integration into Italian Inclusive Education

Valentina Della Volpe*

PhD Special Education, University of Rome "ForoItalico", Italy

***Corresponding Author:** Valentina Della Volpe, PhD Special Education, University of Rome "ForoItalico", Italy, E-mail: valentina.dellavolpe@uniroma4.it

Citation: Valentina Della Volpe (2016) Examination on ICT integration into Italian Inclusive Education. Educ E-learn 1: 004.

Copyright: © 2016 Valentina Della Volpe. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted Access, usage, distribution, and reproduction in any medium, provided the original author and source are credited.

Abstract

This research study aims to analyse ICT integration and facilities in special education in Italy in order to set ICT policy in education. Documentary analyses were conducted to gain reflections and tendencies about ICT integration in special education. This research study shows adaptability of Italy to European ICT policy and furthermore the research provides analysis of national situational.

Information, communication and technology (ICT) [1] plays a great role in providing inclusive education for students with special education needs. It is a bridge in fostering learning who has special needs in education. It becomes a medium to achieve equal opportunities for all and an important instrument of connecting their way of lives and their socialization within education life. Most of the global countries pay attention to ICT practices in their education reports in order to provide equality in education and make all citizens active and digital capable. In reports, education context, ICT policy, ICT in curriculum and teacher education, ICT and digital resources were highlighted. The Italian reports did set special education needs, learners and ICT support for their learning. Although they pay attention to learners who have special needs, there is an intensified need to make comprehensive analysis of ICT integration into special education.

Keywords: ICT; Inclusion; Special needs education; Policy

Introduction

Personalized learning requires attention to the unique needs of all students of all abilities, acknowledging that each have different learning styles including students with mild, moderate or severe disabilities. The use of

technology in education plays a particularly vital role by enabling flexible curriculum development and assisting students with disabilities to participate as equals in the learning experience. It also helps to prepare them for life-long learning, recreation and work outside of school.

As the UN Convention on the Rights of Persons with Disabilities continues to be implemented globally, State Parties to the Convention continue efforts to realize the goal of Inclusive Education to ensure that students with disabilities have full access, on an equal basis with other students, to regular schools and teachings. Within all European member countries there are moves towards greater educational inclusion. The promotion of equity in educational opportunities is a clear strategic challenge for the EU member States. Countries' systems of funding for education play a crucial role in ensuring learners from disadvantaged groups – including those with special educational needs and/or disabilities - have access to an inclusive education system at all levels of lifelong learning.

Background and Theoretical Framework

Policy makers across Europe recognize that funding mechanisms are a critical lever in reducing disparities in education. They require more detailed information on the impact of funding mechanisms on inclusive education that can be used to guide their policy developments. The Financing Policies for Inclusive Education Systems (FPIES) project is a response to this identified policy need.

The framework the project was based upon five key propositions that can be identified within the United Nations Convention on the Rights of Persons with Disabilities [2] in relation to the use of ICTs in education. These propositions are:

1. ICT should be considered as a key tool for promoting equity in educational opportunities;
2. Access to appropriate ICTs should be considered an entitlement;
3. Training of educational staff in the use of general and specialist ICT must be considered a priority area;
4. The promotion of ICT research and development requires a multi stakeholder approach;
5. Data collection and monitoring in the use of ICT in inclusion should be considered an area requiring attention at all levels of educational provision.

These five propositions have been used as the main interconnected themes for the overall project information collection and analysis.

Within this study, complementary information collection has been conducted, all in line with the five project themes.

Research Approach

Information on participating Italian policy and practice for ICT for Inclusion has been collected in relation to the five themes for the study via collected information on country policy frameworks for ICT for Inclusion and country research literature.

Literature reviews has been undertaken relating to the use of ICT in inclusive education covering national and international sources (such as UNESCO and OECD work).

The research has qualitative nature which patterns and meanings have potential influence to understand the research focus. Thus research aims to examine the ICT integration into special education programs and courses within education system, reflections and policies provided a ground to understand the further strategies and strategic plans in respect to special education and ICT policy based on European standards.

Qualitative research provides in-depth examination of the patterns and meanings in respect to research focus which emic perspective can reveal the better understanding of issue or problem for better action oriented policies [3]. Silverman [4] pointed out that qualitative researches inductive process to understand the process in a detailed way with all patterns and meanings.

Research Context

Building of a civil society requires an increased access to knowledge and education. The right to education is an essential human need and a basic human right, which is crucial to human development. Furthermore, the major social problems of individual countries and the world as a whole cannot be solved without high-grade level of education.

The Italian Framework Law for the Assistance, Social Inclusion, and the Rights of Persons with Disabilities no. 104 of 1992 deals with diagnosis, prevention, treatment, and rehabilitation, and addresses various services and support as well as the issue of social exclusion of persons with disabilities. In particular, the law provides that appropriate support must be provided in mainstream schools at all levels – e.g., specialized teachers, educational aids, and transportation and material assistance – with the collaboration of all public competent bodies and with the involvement of all those who have educational competences (teachers, assistants, families, etc.).

In 1971 the Italian Law 118 granted all children with disabilities – except for the most severe cases – the right to be educated in mainstream classes. By 1977, Italy closed all special schools and its Law 517 prescribed that all pupils with disabilities should be included. In the 1980s, Inclusive Education was implemented in pre-schools and in secondary schools. In 1991 a commission, including persons with disabilities, started to draft the Framework Law for the Assistance, Social Inclusion, and the Rights of Persons with Disabilities no. 104 that was adopted by the Parliament in 1992. It was the first time that civil society, organizations of persons with disabilities, and families were fully involved in such a process.

Italy is the European country with the highest inclusion of people with special needs in mainstream schools. There is consensus that both children with and without disabilities learn from each other.

The overall assessment of school experience by persons with disabilities is very positive, with an average of 4 on a scale of 1 to 5.

Concerns exist that Italy has still to overcome the micro exclusion that children with disabilities experience within inclusive settings. In 2015 the School Reform Law 107 intensified the quality of education support, and provided more resources and data.

State schools continue to record a slight increase in pupils in comparison with previous years, reaching over 7.8 million units. To this we need to add private schools, both recognized and non-recognized which together exceed the

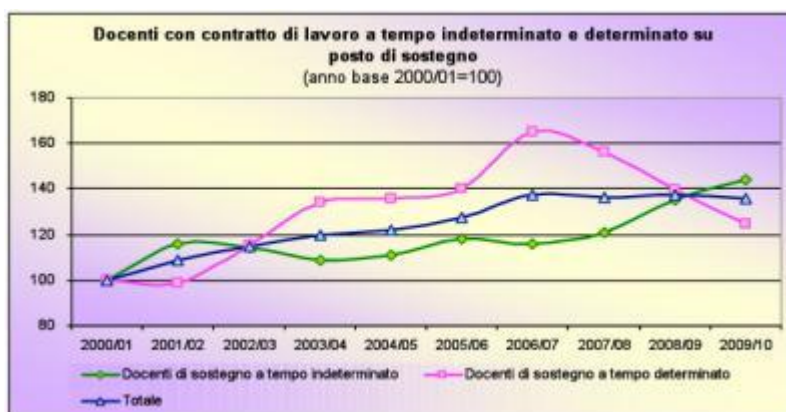
amount of one million bringing the total number of children enrolled into the Italian education system to nine million in total.

The state education service, with about 42 000 schools, is situated in almost all Italian towns, moving activities and structures like any other field of the public administration.

Overall, the state education system maintains about 1,065,000 units of school staff.

The process of rationalization, classes, pupils and ratio teacher/student, does not produce any results in inclusion and integration of students with disabilities: the table below shows the situation of support teacher staff, assigned to the integration of pupils with special needs, during the last decade.

Figure 1: Percentages Trends of support teachers



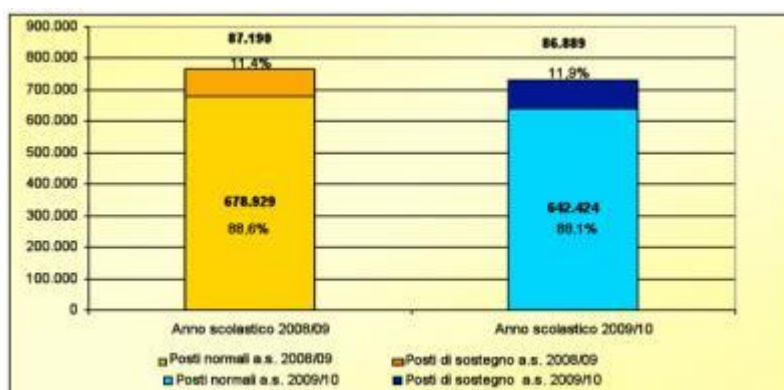
Green: support teachers with permanent work contract
 Purple: support teachers with temporary work contract
 Blue: total amount of support teachers

In the current school year, support teachers reach almost 90,000 units placed in different orders of state school.

Figures below show the amount of teaching staff for the school years 2008/2009 and 2009/2010.

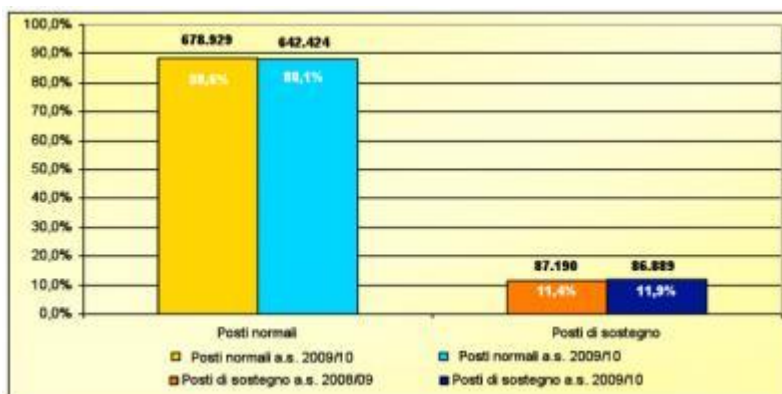
Data shows, as mentioned, that the process of rationalization of the educational system did not affect school inclusion and educational support to pupils and students with special needs.

Figure 2: Subject Teachers and Support Teachers for school years 2008/2009 and 2009/2010



Light orange and light blue: amount of subject teachers - Dark orange and dark blue: amount of support teachers

Figure 3: Subject Teachers and Support Teachers for school years 2008/2009 and 2009/2010

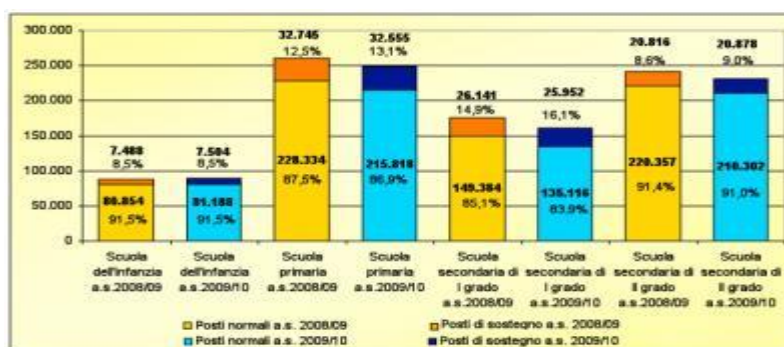


Light orange and light blue: amount of subject teacher - Dark orange and dark blue: amount of support teacher

Support teachers are counted in the number of ordinary teaching staff (that is calculated in comparison with the total amount of the school population) and they can also be nominated annually “until the end of the activities” in

addition and in derogation of ordinary support staff according to the situation and depending on the need of the pupils and students.

Figure 4: Distribution of Support Teachers and Subject Teachers for level of education



Light orange and light blue: amount of subject teachers - Dark orange and dark blue: amount of support teachers
From left to right: Pre-primary School; Primary School; Junior High School; Senior High School

In 2009/10, the number of students with disabilities and special needs included in state schools from pre-primary to secondary is 181,177 units, slightly more than last year.

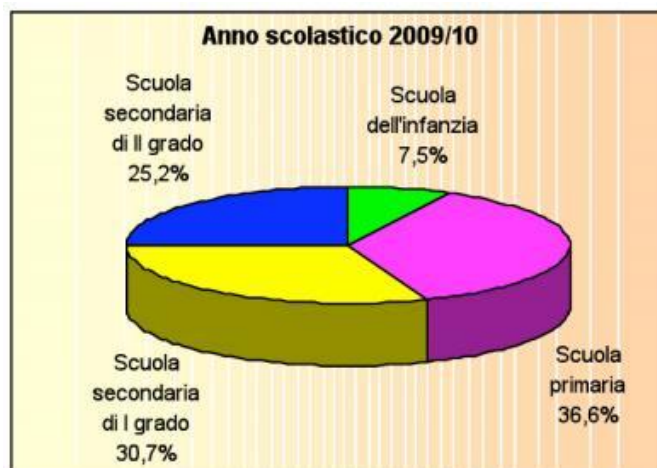
During the mentioned period, this slight increase has also resulted in a significant increase in the number of students with disabilities enrolled in secondary education.

The constant increase of people with disabilities included in the last decade, compared with a substantial stability of the levels of the total amount of school population lead to a ratio of students with disabilities and the school population of 2.3%

However, the impact of the number of pupils with disabilities in the total population varies according to the

districts studied during the analysis: 3.3% in junior secondary school (the level retained the highest incidence); 2.6 % in primary school; 1, 3% in nursery and pre-primary and 1.8% in senior secondary. If the values are placed in sequence by level of school (from childhood to secondary), we can see that the value tends to increase with the progress of education, highlighting how the emergence of the difficulties of learning become evident disabilities, limiting the acquisition of knowledge, competences and relationships with consequent recourse to the certification of disability aimed to obtain support and educational measures.

Figure 5: Distribution of Pupils Supported (for Disabilities or Special Educational Needs) for level of education (Light Green: Pre-primary; Pink: Primary; Yellow: Junior Secondary; Blue: Senior Secondary)



Research Findings

In accordance with Universal Declaration of Human Rights, education is seen as a pre-requisite of facilitating democracy, and a means of promoting peace and respect for human rights and fundamental freedoms. Information, communication technology shaped the facilities and services of lives. The way of learning, the way of sharing experiences has been changed. ICT becomes integral of our lives and it promises opportunity for learners to gain equality in education within diverse contexts and services. In this respect, recent studies focus on the perceptions of participants on ICT, the uses of ICT and practical implications in special needs education [5-10], there is a little attention on policy of ICT within the integration of education especially special needs education. The study of Yusof, Daniel, Low, Aziz [11,12] discussed teachers' perception of m-learning applications in special education. It is seen that there are limitations of using ICT in special needs education and it is suggested to use augmented reality, game-based educational software and animation projects. As ICT plays a great role to foster learning in special needs education, planning ICT in education and establishing standards through ICT policy is essential.

Liasidou (2010) puts emphasis on special needs is not personal trouble, it is public issue, therefore societies in their system need to pay attention on their policy and create a standard for the uses of ICT for upgrading the quality and equality of the special needs education. In this respect, ICT integration within education, considering the aspects of context, teacher education for ICT, ICT policy, context, digital learning resources, ICT in curriculum is crucial. While reforming the ICT in education sufficient body of knowledge; active citizenship; key competences need to be highlighted and the great role of ICT in special need education needs to be discussed. Therefore this research study aims to analyze ICT integration and facilities in special education schools in Italy in order to set ICT policy in education.

Diffusion of knowledge in digital age is rapidly changing. The impact of technology in learning become core area of research in literature however integration of ICT in special education stays partial. Being digital native, digital inclusion and leadership role in ICT integration in education require strategic planning and management process which ICT inclusion and provision are vital in order to cope with global standards as developing countries education system. Therefore, this research study aims to make comprehensive analysis of ICT integration into special education schools and examine ICT integration and facilities in special education schools in Italy in order to set ICT policy in education.

ICT in Curriculum and Teacher Education

The tendency to integrate ICT in special education is even in preliminary stage in curriculum and teacher education programs. Within the system, there are new program and courses to capture ICT competence and literacy for special education field. The awareness of necessity on ICT integration in special education become current system issue and problem which need to be investigated and planned in detail through strategic planning and management.

Teacher education institutions may either assume a leadership role in the transformation of education or be left behind in the swirl of rapid technological change. For education to reap the full benefits of ICTs in learning, it is essential that pre-service and in-service teachers have basic ICT skills and competencies. Teacher education institutions and programs must provide the leadership for pre-service and in-service teachers and model the new pedagogies and tools for learning. They must also provide leadership in determining how the new technologies can best be used in the context of the culture, needs, and economic conditions within their country.

To accomplish these goals, teacher education institutions must work closely and effectively with K-12 teachers and administrators, national or state educational agencies, teacher unions, business and community organizations, politicians and other important stakeholders in the educational system. Teacher education institutions also need to develop strategies and plans to enhance the teaching-learning process within teacher education programs and to assure that all future teachers are well prepared to use the new tools for learning.

ICT and Digital Resources

The most challenge of using ICT in education, significantly in special education is the digital resources. Using digital resources and educational infrastructure within the system are still limited for special education upon documents. As regards the critical analysis on digital and interactive learning environments, applications and competences are not satisfactory. Although literature points out positive correlation between success and using digital resources in special education, there is no evidence on practice within this system.

Overall Evaluation Documents showed that there is potential need to integrate ICT in education, significantly in special education. There is experts in special education who have potential competence on ICT literacy in special education, but still they are not enough. Furthermore, there is no practical implementation and policy oriented actions. In addition, there is intensified need to consider digital resources to increase the learning and performance of the children who are part of the special education upon their individual characteristics and needs.

Conclusion and Recommendations

Information and communication technologies (ICT) are accepted as enhancing learning as regards the diffusion

of knowledge in digital age. The basic idea underpinning the study is, in fact, that the process of inclusion can be fostered by means of new technological tools: it requires, in turn, changes and modifications in educational contents, approaches, structures and strategies [13-17].

Technology management process needs to be considered within the system to set priorities and action plans for further development. In this respect, system needs to consider ICT policy for special education, put emphasis on curriculum and teacher education program and courses, digital resources and literacy to get success in special education field. Technology management process requires strategic planning process which these processes propose participatory decision making process of team experts. Technology management process and in-service trainings to the teachers and families are very crucial. Internalization of digital citizenship within the system is necessary. Therefore, reaching out success and constructive performance on integrating ICT into special education program and courses even in management process of the schools need contextualization and ICT policy and digital literacy.

One key lesson is to acknowledge the many facets that ICT in Education policies have to tackle such as teacher competencies, learning materials, ICT equipment, student and teacher motivation, as well as the linkages to other areas of national policy and socioeconomic development. Adopting a cross-sectoral approach through an ICT in Education Master Plan can help countries to successfully address all relevant dimensions.

In this context, the ICT Competency Framework for Teachers is aimed at helping countries to develop comprehensive national teacher ICT competency policies and standards, and should be seen as an important component of an overall ICT in Education Master Plan.

This study provides a ground and opens a debate on ICT in special education. For further studies, longitudinal studies may be conducted and strategic planning, technology management process can be revealed with evidence and results.

References

1. Becta (2004). What the research says about ICT supporting special educational needs (SEN) and inclusion, Becta publications ID: BEC1-15009, retrieved August 25, 2007 from http://www.becta.org.uk/page_documents/research/wtrs_ictsupport.pdf.
2. United Nation. (2006) Convention on rights of persons with disabilities. Retrieved from: <http://www.un.org/disabilities/convention/conventionfull.shtml>.
3. Creswell, JW. (2009). Research design: Qualitative & quantitative approaches. United Kingdom: SAGE.
4. Silverman, D. (2005). Doing qualitative research. London: SAGE.
5. Brodin, J., Lindstrand, P. (2003). What about ICT in special education? Special educators evaluate information and communication technology as a learning tool.
6. Liasidou, A. (2010). Special educational needs: a public issue. *International Studies in Sociology of Education*, 20(3).
7. Peltenburg, M., Heuvel-Panhuizen, M., Robitzsch, A. (2010). ICT-based dynamic assessment to reveal special education students' potential in mathematics. *Research Papers in Education*, 25(3).
8. European Commission. (2010) European Disability Strategy 2010-2020: A Renewed Commitment to a Barrier-Free Europe. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:0636:FIN:EN:PDF>
9. Heemskerk, I., Volman, M., Admiraal, W., Dam, G. (2012). Inclusiveness of ICT in secondary education:

10. National Institute of Statistics. (2012). The inclusion of students with disabilities in state and private schools. Retrieved from: <http://www.istat.it/it/archivio/50280>
11. Yusof, AM., Gnanamalar, E., Daniel S., Low, WY, Aziz, K. (2014). Teachers' perception of mobile edutainment for special needs learners: the Malaysian case. *International Journal of Inclusive Education*, 18(2).
12. Denzin, NK., Lincoln, YS. (2003). *Collecting and interpreting qualitative materials*. London: SAGE.
13. de Anna, L., Canevaro, A., Ghislandi, P., Striano, M. Maragliano, R. and Andrich, R., (2014) Net accessibility: A research and training project regarding the transition from formal to informal learning for university students who are developing lifelong plans. *ALTER, European Journal of Disability Research*, 8, issue 2.
14. de Anna, L., and Della Volpe, V. (2014) The research project Fiber network@ccessibile', *Bulletin of National Institute of Educational Resources and Research*, "Technological and Higher Education in the World ", Taipei, Taiwan R.O.C., 64, 95-120, http://www.naer.edu.tw/ezfiles/0/1000/attach/81/pta_7247_1329391_15783.pdf
15. de Anna, L., Gaspari, P., Mura A. (eds), (2015), *L'insegnante specializzato. Itinerari di formazione per la professione*, Roma, Italy: Franco Angeli.
16. Della Volpe V. (2015), 'ICT and Inclusion in Higher Education: A Comparative Approach', *Open Journal of Social Sciences*, 3, 39-47, online <http://dx.doi.org/10.4236/jss.2015.39007>.
17. Della Volpe V.(2014), 'The Italian School: An Inclusive Context for Students with Disabilities', *Bulletin of National Institute of Educational Resources and Research*, Taipei-Taiwan R.O.C., vol. 62 "Secondary Education in the World 2013", ISBN 9789570220261 || ISSN: 1680-5526.

Please Submit your Manuscript to Cresco Online Publishing

<http://crescopublications.org/submitmanuscript.php>