Inclusion aims to change the traditional educational view, typically based on the “specialised answer to special needs” (focus on disables pupils), into an “ordinary answer to the needs of all”. The social model of disability and empowerment constructs consider the disabled pupils and their families to be at the centre of all decision-making processes. Evidently, school plays a key role in facilitating both the inclusion processes and the individualization and personalisation of learning, at the same time providing educational answers and teaching methods in line with the educational mission of “our” society. In this framework, the paper describes the research Screening on learning to learn: inclusive educational approaches to supporting study methods in Primary School carried out at the Department of Education, University of Bologna, in cooperation with the Regional Schools Department of Emilia Romagna (Ufficio Scolastico Regionale ER). The research aims firstly to recognise and identify the educational needs of the primary school classes involved (Bologna, Ferrara, Forlì) and, secondly, to test and disseminate ICT practices, strategies and methods which can concretely support the teaching and learning processes.

KEYWORDS: inclusive education; teaching and learning; ICT; action learning.
In fact school should be from the beginning the first battle which a child fights for himself, without us; from the beginning it should be clear that this is his battlefield and that we can give him only very slight and occasional help there. And if he suffers from injustice there or is misunderstood it is necessary to let him see that there is nothing strange about this, because in life we have to expect to be constantly misunderstood and misinterpreted, and to be victims of injustice: and the only thing that matters is that we do not commit injustices ourselves (Ginzburg, 1960).

Introduction

The research-action project “Screening and training on learning to study. Inclusive educational approaches to skills and study methods” promoted by the Inclusion and Technologies laboratory (LAB-INT) at the “G.M. Bertin” Department of Educational Science of the University of Bologna, with the collaboration of the Regional Schools Department of Emilia-Romagna, focuses on the recognition and identification of educational needs of classes with a so-called “high degree of complexity” in the Emilia-Romagna region.

Classes with a “high degree of complexity” refers to classes with a large number of pupils, including a high percentage of pupils with disabilities, pupils with learning disabilities, pupils undergoing certification and/or for whom diagnosis is not clear, or again pupils in situations of socio-cultural and economic poverty, or pupils from disadvantaged and/or migrant families.

For some time modern society has been marked by profound and rapid transformations affecting all contexts: the education system has also been affected by these changes, and today “doing school” means being able to relate the complexity of new learning methods with new teaching methods (Frabboni & Giovannini, 2009). Complexity therefore becomes a synonym of heterogeneity which can be found in both micro-contexts (among pupils, in the class, in the school) and in macro contexts (society).

Some scholars have noted how in Emilia-Romagna the classes are “overcrowded”, often very complex and with a higher percentage of foreign students than in other geographical areas of Italy, yet with a study programme that continues to be very “rich” and of “high quality” (Cerini et al., 2007).

We should in fact note that the presence of migrants in this region is significantly higher than the Italian national average (Caldin, 2012). Moreover, the increased heterogeneity of the classes is also the result of an overall increase in pupils with disabilities, the incidence of which tends to increase above all in state schools. The presence of disabled pupils in state schools is an indicator of the level of inclusion.

1 This contribution, fully shared by the three authors, was drawn up as follows: paragraphs “Introduction” and “Conclusion” by Roberta Caldin; paragraphs “Theoretical Framework” and “The impact of teaching actions on pupils, teachers and parents” by Alessia Cinotti and paragraphs “Methodology”, “ICT to enhance the teaching and learning methods” and “References” by Luca Ferrari.

2 http://www2.scform.unibo.it/Lab-Int/index.htm
of the education system, and as Stainback and Stainback (1990) stated, inclusion is an existential method, an ethical imperative, *a basic right that nobody has to earn*; consequently, we do not have to demonstrate the pedagogical value of community life and learning in an ordinary school. Rather, governments and communities have the duty to remove the barriers and obstacles that hinder social inclusion, providing appropriate resources and support to allow children with disabilities to grow in inclusive environments (Stainback & Stainback, 1990, pp. 71-87).

Starting from this complexity and its educational challenges, we selected the classes to involve in the research project “Screening and training on learning to study. Inclusive educational approaches to skills and study methods” where – based on the indications of the Emilia Romagna Regional Schools Department (USR) - the choice focused on schools with the greatest degree of complexity. Starting with the recognition and identification of the needs, potential and difficulties of the schools involved, the research focused on the *experimentation and dissemination* of operational tools - specific attention was paid to training in the educational use of ICTs - and teaching methods used to support/enhance both teaching and learning methods and study methods.

1. Theoretical framework

Strongly integrated with school and family oriented competences, Special Pedagogy has to face new educational and social challenges. We believe that the route of inclusion must be followed, based on an approach which at least:

- focuses on educational, social and political spheres as a whole;
- considers all students;
- intervenes firstly in the contexts and then on the individual;
- transforms a specialist response into an ordinary one (Caldin, 2009);
- refers to the social model of disability and the sense of *empowerment* which places the disabled person and their families at the centre of all decision-making processes (D’Alessio, 2011).

Transforming a “specialist response” into an “ordinary” one is one of the most important and yet one of the most complex challenges facing our educational and social system, where a central focus on the disabled person and/or all vulnerable segments seems still to prevail over a broader inclusive approach.

In Italy, Caldin (2009) states that, in pursuing the inclusive perspective, we must continue to consider our fundamental task to be to ensure that the achievements of a person in problematic situations become qualities for all; in our way of proceeding, we must identify the elements which can be used even when the social context and political choices does not seem to support the objective of inclusion or when there are no economic resources for reducing handicaps.

Stainback and Stainback (1990) consider the notion of *inclusion* to be a *moral imperative* that does not depend on the results and empirical tests of scientific research: “[...] inclusion is a way of living honestly, ethically and fairly” (Stainback & Stainback, 1990, pp. 71-87). They propose an ethical paradigm in which all individuals have the moral right to be educated in ordinary schools, and inclusion is the ideal context for achieving this objective.
Since the 1990s, international political and scientific debate has backed the concept of “inclusion”, in which access and participation of all children (including disabled) are considered a priority. Moreover, UNESCO (2000) recommends replacing the term “special educational needs” with “education for all”. In order to promote real educational and cultural changes, the concept of education for all considers diversity as a value. In other words, as already underlined, inclusion aims to change the traditional educational view, typically based on the “specialised answer to special needs” (focus on people with disabilities), into an “ordinary answer to the needs of all”.

As stated in the Madrid Declaration (2002) for many children with disabilities, as well as others, school represents one of the most important and significant educational opportunities in life, through the meeting with potential significant adults to foster the growth and psycho-social development of every child. Inclusive education is based mainly on four key concepts: all children can learn, all children are different, diversity is a strength, learning benefits from the cooperation between teachers, parents and the local community.

We consider school to be a context that must foster inclusion and reduce exclusion, striving to overcome the care-based standardising paradigm that continues to permeate many cultures, policies and practices within European school inclusion processes (Caldin, 2009). School should in fact be the place where every pupil is guaranteed the right to learn according to his/her own capacities and inclinations, offering educational responses and teaching methods that attentively and promptly match the transformations in the social fabric.

Some national and international studies carried out into the school world have highlighted a number of factors which can facilitate/hinder inclusion: “organisational aspects, normative frameworks, teaching methods, availability of support teachers and other school staff, teacher training, family involvement and cooperation with other services” (Dovigo, 2008, p. 25). Inclusion requires significant adults who can work together to offer not merely a system of guardianship but also of pluralistic cohabitation through everyday practices (Sapucci, 2007), encounters, dialogue and mutual enrichment.

1.1 Methodology

The action research (set up in 2011) is based on integration of qualitative and quantitative approaches. The quantitative approach was enhanced by:

a) analysing the context: semi-structured questionnaire exploring the features of the class, the perception of the pupils and teachers concerning the study, teaching and learning methods;

b) analysing the data, supported by the data mining and statistical analysis software, Statistical Package for Social Science (SPSS);

c) monitoring the educational impact of the experimented actions (on-line questionnaire and interviews administered to teachers, pupils and parents).

The qualitative approach, on the other hand, was used by:

a) studying the quantitative data gathered and processed during the first phase of the research;

b) analysing in depth some important aspects which emerged while monitoring the research experience (focus groups organised for each research target).
Together, the described approaches allowed us to formulate the objectives (defined “in progress”, without ever being too structured), hypotheses, activities and methods used to verify the impact of the experimentation in a more targeted manner.

The research addresses three different target groups, namely teachers (31), parents (51) and learners (229), and follows these main phases:

- recognition of learning and teaching needs;
- screening on learning to learn\(^3\);
- processing and data analysis;
- recognition of parents attitude to support their children during the homework\(^4\);
- identification of practical answers: i.e. teacher and families testing a series of actions to strengthen/consolidate the study methods of classes through the use of ICTs;
- organisation of teacher training sessions aiming to learn with and through ICTs;
- creation and testing of a set of teaching actions (negotiated with teachers, pupils and families) aimed at supporting study methods at school (teachers and pupils) and at home (parents and pupils);
- rendering of research data to all those targets and stakeholders involved.

Each of these phases, while taken and analysed separately, should in any case be considered as strictly linked to the previous and/or subsequent phases, as the research path implied the constant interaction of the different stakeholders (teachers, parents, pupils) using a number of instruments aiming to investigate the study method (at home and at school) and the teaching methods used in primary school.

Finally, as far as the sample of pupils is concerned, the graph 1 provides a detailed set of information on the features of the class group involved in the research\(^5\). As described above, the characteristics of the pupils confirm the heterogeneous nature of today’s education system. More than two thirds of the pupils (70) are children of migrants, 9 pupils are disabled: in addition to these, special needs certification processes have been initiated for at least 4 children during primary school. There is also a large number of children (18) from other schools, who joined the class after the start of the school year. The majority of teachers (9 out of 11) describe the level of difficulty in the class they work in as “complex” and/or “very complex”. These teachers describe the behaviour of their pupils as “problematic” and “lively” in the majority of cases, stating that managing the class (d’Alonzo, 2012) is rather complicated and tough. Despite this, many teachers also recognise positive qualities among their pupils, such as “collaborative”, “calm” and “attentive”.

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\(^4\) Other instruments implemented: such as “meta cognitive proofs” created by researchers and video interviews.

\(^5\) For the sake of brevity, we have chosen to present only the data concerning the school in Ferrara.
2. ICT to enhance the teaching and learning methods

The data gathered during the first phases of the survey, summarised in the following graphs, indicates a low level of use of ICTs by the teachers. For example, audiovisual means are rarely used to support the cultural transmission of contents presented in lessons; the computer room is almost never used, and, where available, the Interactive White Board (IWB) is not used during the lesson. During the focus groups with the teachers, difficulties and resistance were highlighted due mainly to the poor knowledge of the educational potential of some computer tools: fear linked to the uncontrollability of machines within a teaching context.

![Figure 2. Explanation in class - We use the computer lab during the lesson](image)

![Figure 3. Use of audio-visual tools in ordinary teaching](image)

![Figure 4. Use of the IWB during ordinary teaching](image)
Furthermore, the data collected during the monitoring highlighted a paradoxical situation: in the schools where technologies were available, they were not used, due to the lack of digital skills possessed by the teacher/pupils; in the schools where technologies were unavailable (because of obsolete software and hardware, etc.) teachers were truly motivated to using ICTs in their lessons. However, presuming that new ICT are profoundly transforming learning processes in society, a new challenge faces education: to be able to manage the rapid evolution of these tools and make them functional to qualifying the learning experience. Alongside technical development, we must also develop models that can critically introduce computer-based and multimedia tools into teaching and learning processes (Guerra, 2010; 2002).

Starting from the above scenario, and following a needs analysis, we designed a training and support path to foster the competent use of ICTs in teaching and learning. This training focused on:

- formalising and sharing the knowledge and practices already used by the teachers;
- co-constructing knowledge and sharing it among all stakeholders;
- seeking different responses according to the different research contexts;
- suggesting implementing (rather than replacement) methods to strengthen some (cognitive, social, organisational, etc.) aspects of the study methods with the support of ICTs.

We set up two training initiatives. The first was on the use of the Interactive White Board (IWB) in teaching; the second on the creation of conceptual maps, with a view to inclusion.

Our goal was not only to raise awareness among teachers on the potential of ICTs, but also to better engage teachers in finding/creating innovative learning paths. As already mentioned, the needs analysis carried out during the first phase of the research underlined both the lack of technologies in the classroom and the inability of teachers to use ICTs for teaching purposes. For that reason, the research group recognised the T-PACK Model as a ‘horizons model’ in order to reduce the above-described gaps. Mishra and Koeler (2006) defined a remarkable framework that suggests a right way to think about technology in educational processes: the basic idea is that the use of technology in learning processes involves three dimensions: technology, pedagogy and content, usually seen as three separate concepts.

![Figure 5. T-PACK Model](image-url)
The intersection of the three entities offers the ideal balance and match between technology, pedagogy and content. This situation can be described as when a teacher knows how to teach a specific content in the best way (i.e. in the way he masters it best) using the proper technology in the best possible manner. Of course this model also considers context, which plays a very important role in the dynamics of the use of technologies in class, but keeping a balance of technology, pedagogy and content isn’t in itself enough (Soriani & Ferrari, 2012); factors such as teachers’ self-efficacy, experience with technology, training, financial and personal resources, students’ needs, students’ learning methods, pupils’ age and socio-cultural environment, are also very important and they must be considered in the whole process (Wilki et al., 2012).

In addition to the T-PACK Model, during the training session at least two educational concepts were underlined: “individualisation of learning” and “personalisation of learning”. The concept of individualisation of learning [...] refers to the need to ensure that all students achieve the same objectives (knowledge, skills, abilities) [...] ; the individualisation approach proposes an integration of different teaching strategies (in terms of time, materials, learning styles). The aim pursued is democratic education that responds to the learner’s right to equality. On the other hand, the concept of personalisation [...] refers to the opportunity to enable students to achieve different goals (independently of the class) in relation to their own personal motivation, potential, curiosity etc6. The (possible) learning paths shown in Table 1 supported the teachers during the life cycle of the experimentation7. Teachers tried to use ICTs in the “ordinary” curriculum, stimulating different learning directions, including reproductive, meta-cognitive and creative learning.

<table>
<thead>
<tr>
<th>Curriculum</th>
<th>Learning process</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Top down - Bottom up)</td>
<td>Reproductive learning</td>
</tr>
<tr>
<td>Top down “Ascending curriculum”: from content to learners</td>
<td>Example: IWB to reinforce the basic learning-related knowledge.</td>
</tr>
<tr>
<td>Bottom up “Descending curriculum”: from learners to content.</td>
<td>Example: Conceptual Maps to stimulate students’ research (learning individualization).</td>
</tr>
</tbody>
</table>

Table 1. The possible ways of using the IWB and Conceptual Maps in teaching

7 Taken and adapted from the article: Guerra, L., Fabbri, M. & Pacetti, E. (2010). LIM, Ambienteinfanzia, 8, pp. 6 -9.
On the curriculum side, “ascending curriculum” means that curricular experience can be built only on the analysis of knowledge (content and related objectives) to be transferred to the students. The student must be confined essentially to reproducing the knowledge offered. “Descending curriculum” on the other hand means that curricular experience can be built from the analysis of the learners’ needs and resources. The student (both individually and in groups) participates directly in the construction of knowledge. On the learning side, the reproductive learning model enhances the achievement of cognitive processes such as: remembering, classifying, listing, executing and retrieving. The learning objectives in the meta-cognitive “model” are general and specific, but not completely defined. The main cognitive processes involved refer to analysis, synthesis and evaluation. Finally, the learning objectives involved in the creative model are analysis (analyse, compare, lead), synthesis (synthesise, schematise, infer), intuition (group solutions, formulate hypotheses), invention.

The impact of the training session underlined not only how we have enhanced teachers’ digital competences but also fostered a critical competence in using “new” technologies integrated into ordinary teaching and learning methods.

3. The impact of teaching actions on pupils, teachers and parents

Based on an initial screening of educational needs in these educational situations, one of the objectives of the research was to promote collaboration between schools and families following an active, co-responsible model by all stakeholders (teachers, parents, pupils) through a joint experimentation among school and families that lasted four weeks.

This phase (September/December 2012) involved the experimentation and use in the involved classes 4 IV year classes (9-10) and 4 V year classes (10-11) of five teaching actions supporting the teaching/learning process through emancipative educational methods by the adults, both at school (class teachers, support teachers, educators) and at home (mothers and fathers). The table 2 summarises the activities and main results emerging for each target.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Significant phrase and/or keyword</td>
<td>Develop skills linked to the autonomy of the pupil in identifying essential elements/notions for understanding the text.</td>
</tr>
<tr>
<td>Time management</td>
<td>Strengthen pupils’ ability to mark, recognise and manage time (with the help of teachers and parents and autonomously).</td>
</tr>
<tr>
<td>Conceptual maps (individualisation)</td>
<td>Produce conceptual maps which clearly identify the main concepts and relationships between the contents of the piece.</td>
</tr>
<tr>
<td>Conceptual maps (personalisation)</td>
<td>Enhance the potential of individual pupils through differentiated proposals, in addition to the objectives set for the whole class.</td>
</tr>
<tr>
<td>Home study in pairs</td>
<td>Facilitate the acquisition is socio-relational skills through the experimentation of peer working methods (peer tutoring).</td>
</tr>
</tbody>
</table>

Table 2. Teaching actions to support the teaching & learning process
The monitoring data concerning this section was gathered for pupils and teachers through an on-line questionnaire, and for the parents through a semi-structured paper questionnaire. Here below is a summary of the results obtained, divided by each target.

Pupils. Constants and divergences can be identified among the pupils of the three schools. The majority of pupils involved in the research adopted a study method based on the repeated reading of the text, accompanied by the underlining and oral presentation of the key concepts to an adult reference figure (father, mother, grandparents, older brother or sister).

At the end of experimentation, pupils underlined how the five actions helped to: reflect about their own study approaches; (gradually) acquire their own study methods, adopt/seek personal strategies and strengthen peer tutoring methods.

Concerning the impact of this activity from the point of view of one teacher interviewed stated that: “[at the end of the experiment] less time was taken to complete the activities, [...] more attention to identifying key words and expressions [...]”. Moreover, it appears to be a consolidated practice among students to produce diagrams and conceptual maps in order to identify and establish the main concepts and relations between the contents of the pieces studied: “[the pupils] are learning to produce maps autonomously, while in the past maps were given to them”. The data gathered after the experiment showed a substantial inclination of the pupils towards aware study, as well as an attitude of self-observation and assessment and thought on their own learning processes. We can effectively summarise the impact of the teaching actions experimented in the following words: “…the children had to opportunity to discuss what they were asked to do among themselves, with us and some with their parents. The attention they paid to the given times and the effort made to respect them certainly changed. They paid more attention to selecting the information to be underlined in the text, they were more aware and focused on the construction of maps and diagrams used for study, as a base for presenting information. There was also greater awareness in identifying the appropriate structure for schematising key information and for seeking linking words”.

Teachers. The data gathered while monitoring the teaching actions generally demonstrates a positive impact of the experimentation on the perception of teachers. The graphs below show, for example, that the objectives were for the most part achieved and that, in some cases, changes in teaching practices were
recorded; this is the case of the autonomous construction of conceptual maps by pupils in terms of learning individualisation and personalisation, an aspect that was not present in the context analysis phase.

Good results were on the other hand obtained concerning the impact of peer study activities, often used in school but not always adopted in family contexts (organisational difficulties because of the pupils living far apart or having no one in the family who can accompany them). However, in the words of one teacher “...for the children [it was] very useful to be able to discuss the strategies used, the different methods and above all a new approach to understanding each other, making arrangements to work together outside of school.” Finally, it is worth mentioning the results emerging concerning the added value perceived by the teachers at the end of the research project. In fact, the data gathered highlights not only how the research offered the possibility to become familiar with and develop “new” teaching techniques, but also and above all that it offered the opportunity both to discuss and dialogue with other colleagues and think about their own professional identity (difficulties, motivations, thoughts). This, we believe, is the real result, for those wishing to conduct a research-action project: objectives that are not too rigidly defined and which therefore allow the diversification of results, active involvement (during the design, planning and decision-making, etc.) of stakeholders in the experimentation throughout the project life cycle; diversification of the impact of the experimentation and development of projects linked to the context; and last, but not least, the acknowledgement of the impossibility, in this type of research, to generalise the results achieved (precisely due to the above characteristics).

The experimentation allowed the teachers to: reflect about their own know-how, consolidate knowledge of the methods and techniques which can be used to teach, observe teaching/learning processes in their own class context, foster collaboration between school and family.
Parents. Having read the family contexts involved in the research, we noted how at home the reference adults tend to prefer a protective method, to the detriment of an emancipative spirit that is indispensable for children’s psychological and cognitive development. From the focus group it emerged that the majority of parents (both mothers and fathers) are involved in their children’s home study; many, for example, sit with their children during their homework, and help them in their written work (e.g. mathematics). Almost all parents interviewed listen to their children while they repeat subjects such as history and geography orally. A certain pleasure in helping their children with their homework is also noted: “I am happy to do it with my daughter”; however, it was also seen how many parents express a feeling of difficulty and frustration: “it is really tough for me to get my son to do his homework”, or “when my son is tired, I have to stage a kind of contest: I do the maths too, and the first one to finish wins”. At the end of the experimentation, the majority of parents reported a positive impact on their children (and their school performance) and on themselves. For this target group, the clearest impacts were those which helped to: stimulate thought on their educational role in homework, and help their children constructively, without exceeding in their support, strengthen collaboration between school and family, strengthen collaboration with other parents.  

Table 4. Teachers’ impact

<table>
<thead>
<tr>
<th>Data</th>
<th>Statement (extracted from interviews)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reflect about their own know-how</td>
<td>75% “I thought about my teaching method and also about the difficulties there may be in the class.” (V year teacher)</td>
</tr>
<tr>
<td>Consolidate knowledge of the methods and techniques which can be used to teach</td>
<td>66% “I thought about the activities we could do with the children and the multimedia tools that can help to personalise lessons today using the IWB.” (V year teacher)</td>
</tr>
<tr>
<td>Teaching/learning processes in their own class context</td>
<td>71% “For the children [it was] very useful to be able to discuss the strategies used, the different methods and above all a new approach to understanding each other, making arrangements to work together outside of school.” (V year teacher)</td>
</tr>
<tr>
<td>Foster collaboration between school and family</td>
<td>87% “It was fundamental to all work together, some parents were really collaborative, for us it was very gratifying.” (V year teacher)</td>
</tr>
</tbody>
</table>

Table 5. Parents’ impact

<table>
<thead>
<tr>
<th>Data</th>
<th>Statement (extracted from interviews)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stimulate thought on their educational role in homework</td>
<td>73% “I tend to always check his homework and his diary.” (Mother)</td>
</tr>
<tr>
<td>Help their children constructively</td>
<td>76% “Now I try not to get involved immediately [...] I wait for him to try and do the exercise by himself.” (Mother)</td>
</tr>
<tr>
<td>Strengthen collaboration between school and family</td>
<td>87% “Having been a part of the methods used in school, now I can support my daughter better in her homework.” (Mother)</td>
</tr>
<tr>
<td>Strengthen collaboration with other parents</td>
<td>59% “It was a bit difficult at first, as I work all day long. But when it was possible, I arranged with some other parents for our children to study together.” (Father)</td>
</tr>
</tbody>
</table>
Conclusion

“Complex classes” can no longer be read as an emergency, but need to be faced more structurally through a multi-dimensional approach that is closely linked to a common education project shared by all stakeholders (teachers, parents, researchers etc.) in the lives of pupils, such as disabled children of migrant families, children with disabilities, learning disabilities or local children from disadvantaged contexts (Caldin, 2012).

Indeed, as stated above, in the past few years education workers have perceived an increase in the number of pupils in their classroom, and the actual extent of this phenomenon is currently being measured using structured and systemic methods.

We believe it is fundamental to remind the school world of its key role in fostering, facilitating and supporting inclusion processes. Indeed, an analysis of the data suggests an image of a welcoming school environment largely free of prejudice towards the complexity, and that schools are the key place for social inclusion as well as being an essential point of reference for all children.

Based on these observations, these are our first and partial considerations about teachers, families and pupils in our education system. We must:

• start with the knowledge and experience of the classroom, the way in which it is lived and perceived by the stakeholders (teachers and pupils) who experience it daily, to investigate the teaching and learning methods;
• consider the differences of each pupil in designing educational practices which are able to respond to the effective needs of each one, without categorisation: here, as Canevaro states (1991), lies Special Pedagogy, which aims to tackle un-common needs with a view to making “speciality” disappear;
• foster digital competences (Calvani, 2010) among teachers; ICTs can qualify educational action only when placed within educational mediation models used to enhance both cognitive and ethical-social aspects in a multidimensional way;
• pursue the route of equality and diversity, which can both be pursued through educational practices which enhance both the individualisation and the personalisation of learning paths. In our research, ICTs were considered as amplifiers of teaching and learning processes, and were always considered as a means and never an end of the educational action;
• provide educational responses in broad rather than separate contexts (Booth & Ainscow, 2002);
• acknowledge the complexity of the purpose of education, moving in a direction that increasingly responds to the needs of all (Bocci, 2012) transforming speciality into normalcy;
• promote the right to “make an effort to learn” (Caldin, 2012) for all pupils emancipative methods;
• support a culture of educational co-responsibility, participation and belonging of everyone (pupils, parents and teachers) to the class, the school and the local community, strengthening mutual trust and communication. Teachers felt supported by the parents, who were allies in the joint school-family experimental project which saw the different stakeholders dialogue in an educational logic focusing on the active co-participation of everyone.
Although here we have only summarised the long, detailed research path, the most significant issues emerging during the various phases are very clear: through a brief comparison between the three schools, we can state, on the teachers’ part, the substantial awareness of their own teaching methods and strategies applied during teaching, as well as a fair inclination towards new teaching methods, such as the use of the IWB. However, the teachers showed some resistance to the use of ICTs where they were not familiar with the tool, even with its basic functions, such as switching on the IWB and/or using the Internet connection. Indeed, teachers must be fully familiar with all aspects of the subject (Falcinelli, 2000) they are teaching, but they must also know and be able to command the relational and learning aspects which permeate teaching and learning processes (d’Alonzo, 2012).

Training is now certainly supported by basic computer literacy for the majority of teachers, attempting to start from their actual needs as well as their fears and perplexities; one teacher told us “It is hard enough as it is managing a class, just think what it would be like to not be ready, to make a mistake when switching on the IWB […] I am sure that in these moments of vacuum, I would lose the attention of the class and re-starting [the lesson] would be even harder.”

Moreover, it was interesting to note how both teachers and parents stated the positive nature of the school-family collaboration: the parents considered the collaboration with the school “very positively”, for the possibility to share objectives, purposes and teaching activities with the teachers. Parents’ thoughts bear witness to the importance of co-responsibility of education between teachers and families, a precious resource which also impacts the children’s learning. In this regard, the parents interviewed underline how, following the experimentation, their children have become more aware of their study methods, and how they feel more confident in their oral and written tests, having gradually acquired a more active and autonomous role in studying both at home and at school.

References


