Inclusion in Mozambique: a case study on a cooperative learning intervention

Viviana Langher, Maria E. Ricci, Flaminia Propersi, Nenad Glumbic, Andrea Caputo

Viviana Langher - Associate Professor

Department of Dynamic and Clinical Psychology, Sapienza University of Rome, Italy

viviana.langher@uniroma1.it

Maria E. Ricci - PhD

Department of Dynamic and Clinical Psychology, Sapienza University of Rome, Italy

mariaelisabetta.ricci@uniroma1.it

Flaminia Propersi - Psychologist

Department of Dynamic and Clinical Psychology, Sapienza University of Rome, Italy

flaminiapropersi@gmail.com

Nenad Glumbic - Full Professor

Faculty of Special Education and Rehabilitation, Department for Special Education of the Persons with Intellectual Disabilities, University of Belgrade, Serbia

nenadglumbic@gmail.com

Andrea Caputo - Psychologist

School of Specialization in Health Psychology, Department of Dynamic and Clinical Psychology, Sapienza University of Rome, Italy

andrea.caputo@uniroma1.it

Abstract: Illiteracy is one of the main obstacles preventing a country from overcoming poverty. The Mozambican government's recent efforts aim to guarantee education for all its citizens, including those with disabilities, in order to reach both cognitive and social skills which maximise their growth and development. This paper offers a complex analysis of a case study dealing with an intervention based on cooperative learning approach for the inclusion of students with special education needs (SEN) in a class of a secondary high school in Maputo city. A clinical and qualitative perspective is adopted in reporting the data, attempting to analyze the organisational, psychosocial, relational and emotional dimensions. Some reflections are provided which refer to key factors which could affect sustainability of good inclusive practices over time.

Keywords*:* inclusion, disability, cooperative learning, special education needs, Mozambique.

Inclusion in Mozambique: a case study on a cooperative learning intervention

The health system, in a country where the living standard (calculated through gross domestic product derived from purchasing power parity) *per capita* is estimated at around 1,000 dollars per year (see Note 1), insufficient to respond to the needs of the urban population, dramatically neglecting the basic demands for health of the rural population. The life expectancy at birth is estimated at 42.1 years (see Note 2), due to high infant mortality rate (100.57) (see Note 3) infant deaths under the first year per 1,000 live births estimated in the years 1995-2010), and HIV infection with a prevalence of 12.5% in the adult population as estimated in 2007 (see Note 4), as well as accidents and other diseases. The country still faces the challenge of slowly constructing its economy, dealing with the hardest challenge in its history: giving the Mozambican people a hope for life, health, well-being, and education (Fox et al., 2008).

Illiteracy is one of the main obstacles preventing a country from overcoming poverty as well as political and economic dependence on richer countries, susceptibility to external interference and internal violence and conflict (Krueger & Maleckova, 2003; Machin & McNally, 2006; OECD, 2002). Since 1995, the vision of the independent and democratic Mozambican government has been to guarantee education for all its citizens, including those with disabilities. The United Nations convention on the rights of people with disabilities seeks to guarantee inclusive education for these people (2006) (see Note 6). While numerous debates for and against this right has been held in the rich and so-called civilised Western world, one of the poorest countries on earth, despite its lack of funds, schools, teachers, expertise and know-how decided to offer its citizens both those with disabilities and not, the opportunity to be educated in the mainstream school system.

The description of some basic characteristics of the Mozambican school system (Fox, 2012)

will help understand why inclusive education in Mozambique could seem an impossible task.

- The schools are few in the urban areas, and very few in the rural territories. In some cases, there are no actual school buildings, and classes are literally held under the trees;
- Four lessons are held in a day: from 6 a.m. (the beginning of the first turn) to 12:30 a.m. (the end of the fourth turn, usually attended by adults);
- The classrooms are overcrowded: 50 - 60 pupils in the urban areas, 120-150 pupils in the rural areas;
- The teachers are few, often very young and inexperienced, roughly trained in basic subjects and completely untrained in disability and inclusive education.

The consequences of such limited conditions are children with disabilities randomly enrolled in regular schools, placed in overcrowded classes without any kind of support neither from the teachers or from their classmates, without any individual planning for the didactic activities or for the educational aims to be reached.

In spite of this, the Mozambican government is still stubbornly pursuing the objective of implementing inclusive education in the country. Several international funding, one of which coming from the Italian government (see Note 7), are supporting this very objective. Some inclusive experiments are being randomly carried out in the Mozambican schools with surprisingly good results. In this paper we are reporting one of them, the implementation of good inclusive practices.

Why Pursue Inclusion?

I really like to work in groups with my classmates because I could share my ideas with some of them with which I had never spoken before (student, Portuguese class, 11th grade).

Next time I would like to be in the same group with the students with hearing impairment so that I can try to speak with them (student, Portuguese class, 11th grade).

Apart from being ideologically for or against the inclusion of children with disabilities in regular classes, the scientific debate on inclusive education (Miles & Singal, 2010; Peters, 2003), does not address its capacity, or lack thereof, to allow children with and without disabilities to reach both cognitive and social skills which maximise their growth and development. As Lindsay affirms (2003), the evaluation of inclusive interventions at school has become increasingly difficult due to the complexity of the setting as well as the requisite variables that should coexist in order to achieve the assessment aims. Full inclusion makes use of peer relationships and normal environments to better achieve social autonomy and academic learning (Burstein, Sears, Wilcoxen, Cabello, & Spagna, 2004). Children with and without disabilities share the same environment, have a relationship with each other, sometimes achieve the same educational aims, and sometimes work together to achieve different academic aims (Rapp, 2005). They face a composite set of stimuli and are asked to solve complex problems. For example, they have to comprehend math or syntax logic during group exercises which require the ability to communicate, to be explicit, to form a hypothesis on the mental processes of the other children in the same group, to support each other because the good result of the working group depends on the common effort, and etc.

The teachers play a crucial role: through their own attitude towards disability, diversity, flexibility, they can support or, on the contrary, contrast the positive implementation of inclusive practices (Alquraini, 2012; Florian, 2009; Wearmouth, Edwards, & Richmond, 2000). The school principals are often the key persons who sustain (or not) the necessary policies to allow the access of pupils with disabilities in a given school. Lastly, the parents' choice of the school

where to enrol their children: in doing so they carry into the school, through their relationships with the teachers and/or the schools principals, their expectations, demands, hopes, fears (Blok, Peetsma, & Roede, 2007; Russell, 2003).

Lindsay (2003) argues that if the whole inclusive process is too complex a system to be scientifically processed it is still possible and valuable to examine the effectiveness of specific aspects of inclusion, for example the effectiveness of a new teaching method, or the category of disability that could benefit more from an inclusive approach, or the age for which inclusive practice is more suitable, and so on. We agree with his suggestion, but we still would like to underline that a new teaching method (considered a specific aspect of a practice) may fit the particular features of a school in a certain moment, while it might not work in a school that is managed and organised differently, or is simply going through a different phase in its development. Or that a child with moderate mental retardation could be welcome in a class where acceptance and tolerance are valuable, whilst s/he could be rejected in a class showing high competition levels (Odom et al., 2006; Pellegrini & Long, 2004). We are saying that, although empirical research is necessary to test the reliability of any innovation, the results should be always interpreted according to the context, inevitably including the researcher's theory framework in collecting the data and interpreting their meanings. Moreover, as Baglieri et colleagues (2011) suggest, we question whether the experimental procedures that operationalise the variables actually correspond to their "live version", i.e. having ecological validity.

Considering, for example, a scientific evaluation of a teaching procedure on effectiveness, does it necessarily correspond to its actual implementation in class, by the same teacher when his/her act is not evaluated? We are not saying that it is impossible or useless to test the effectiveness of an innovation in the field of inclusion, but we have to take into account the

undeniable limitations of such approach. For this reason, in our contribution, we offer a rather complex analysis of a case study, believing that we can perhaps explain how it worked and why we think it was effective, but avoiding the ambitious aim of exporting these results and generalising them to other seemingly similar situations. We chose a clinical and qualitative perspective (see Note 8) in reporting the data, attempting to analyze the organisational, psychosocial, relational and emotional dimensions which could affect the completion of this project.

Going back to our question, why pursue inclusion, the answer does not lie in the well proven efficacy of this approach. Neither are we saying that our contribution here is to sustain its general reliability. We are simply stating that the controversial effectiveness of the inclusive approach could even be a false problem. Our research staff moved in a well defined value-laden context (a local government which decided to guarantee mainstream education for all children, some specific schools which asked for our support for implementing inclusive approach in regular classes, some specific classes which decided to be directly involved in an experiment), our objective being that of supporting all these actors to better achieve their own aims.

As a conclusion we still offer a possible usefulness of our case study. This paper reports a composite set of data, an explicit explanation of a decision making process, a multi-parameter comparison between different moments in the same class, and the voice of the actors involved.

We hope that it can be of some use as a problem-solving clue for other research groups, as well as special educators, school principals, teachers, parents, psychologists involved in the field of inclusive education, all of them dealing with the complexity that arises from this many-sided individual-context perspective.

An Intervention For The Inclusion Of SEN Students In An Inclusive Class Of A Secondary

High School In Maputo City

The intervention: The Cooperative Learning Approach In Inclusive Settings

The mere placement of children with disabilities in regular classes is not sufficient to include them. Specific teaching strategies are indeed required to facilitate their inclusion. In fact, as many studies show (Gibb, Tunbridge, Chua, & Frederickson, 2007; Langher, Ricci, Reversi, & Krstić, 2009; Nota, Soresi, Ferrari, & Wehmeyer, 2007; Reversi, Langher, Crisafulli, & Ferri, 2007), in the absence of such strategies they may experience rejection, loneliness and poor academic results. Cooperative learning is one of the most recommended strategies for achieving the inclusion of children with disabilities in regular classrooms (Jenkins, Antil, Wayne & Vadas, 2003; Murphy et al., 2005). Specifically, it asks students to cooperate, working in small groups, to achieve academic and social targets, according to five fundamental rules: positive interdependence, individual and group accountability, promotional interaction, appropriate use of social skills, and group processing (Johnson, 2003, 2009; Johnson & Johnson, 2009). A highly differentiated class is the occasion for all students to deal with and think about complex relational events. Traditional frontal lessons can discourage reciprocal peer exploration and can favour passivity and indifference towards the learning process. Cooperative learning pushes the students to play an active role and to launch elaborate mental processes in order to understand their classmates' minds: their needs, intentions, opinions, doubts, as well as reciprocal relational expectations. These psychological skills are deeply involved in the relationships with a person with SEN. In this case, the communicative exchanges require a very high competence in forming hypotheses on the other's intentions, since a person with disability may not appropriately use the common communicative channels, and, when cognitively affected, s/he may not use implicit and shared attributions of meaning to the communicative acts. The cooperative learning process

emphasises individual accountability and reciprocal responsibility, leading the students to a richer categorisation of events, to the recognition of different communicative abilities, to enjoy in working together, to a high motivation for achieving good results. Given the complexity of the processes involved, the support of a trained teacher is essential in successfully accomplishing this didactic task.

Specifically, the researcher's work consisted in both qualitative class observation and teacher training in rearranging the traditional lesson, integrating it with a participative didactic model, for which we followed Johnson & Johnson's Learning Together approach (Johnson & Johnson, 1983) as well as the Aronson's Jigsaw Groups approach (Aronson & Patnoe, 1997), both adapted to the local classroom condition.

Participants

The intervention was implemented in a class of a high secondary school in Maputo city. This is a public school offering three different shifts of classes, the first two during the day and the third during the evening, respectively for both the first (from 8th to 10th grade) and second (11th and 12th grade) educational cycle. The school was located in a big renewed building (about 9,000 square meters) in the urban centre of Maputo, that is a well equipped and connected area which is quite far from the suburban and very poor periphery of the city. The school was composed of both regular (11-18 years old) and older student population (even 40 years old) because lessons were organized in four different teaching curricula per day in order to provide illiterates with education too.

It was a 11th class (held in the second shift) attended by 25 students aged 18-22, whose 21 were repeaters, 3 had Special Educational Needs, namely hearing impairment (2) and physical disability (1). However, we have to note that students with hearing impairment had received

special education from primary school. Indeed, in Mozambique often other disabilities are not specifically considered and dealt with by the education system.

School teachers alternated the frontal teaching style with participative techniques implying that the students - except those with hearing impairment - were requested to individually explain contents to their peers. Students with hearing impairment were assisted by student-tutors acquainted with a rudimentary sign language. Some students spontaneously interacted with the hearing impaired ones, although the majority did not, given the communicative difficulties. Students were repeatedly absent from school, showed little interest in the discipline, few generalized performances, and superficiality in the homework.

Although this particular class was not overcrowded like the majority of classes in Mozambique, the teachers complained of being very tired due to the presence of two students with hearing impairment among a set of very unmotivated students. Our start issues were how to promote a higher involvement of all the students in the class activities such that they could have a more interesting learning experience; how to enhance the participation of the two students with hearing impairment in order to limit or at best to remove their isolation from the others and from the lessons; how to prevent the teachers' burnout due to the fatiguing interactions with indifferent students.

Before making decision about implementing a rearrangement of the class, we carried on an observational phase during some classes, namely Chemistry and Portuguese, necessary to better comprehend the specific features of that context and its internal interactions. The modular system did not affect the composition of this setting from Chemistry to Portuguese lessons so that students were mostly the same.

Baseline Assessment

Classroom observations were carried out with the aid of a qualitative observational scale (see Note 9). The use of the qualitative observational scale, built from a psychosocial point of view, served as a means to explore some dimensions of the class context in the early stage of the intervention.These information were also integrated with qualitative reports written by the research group members in the course of the entire intervention.

Teachers' and students' behaviours could be assessed as individualistic or as relational. An individualistic behaviour refers to a teacher who scarcely interacts with the students, who prefers dual relationships, who discourages peer relationships, and to students who don't interact with each other. On the opposite side, a relational behaviour refers to a teacher who favours group interactions, who explores the learning needs of the class members, who modifies her/his behaviour according to the communicative exchanges with the students, and to intense peer relationships in the class. The observational scale consisted of three dimensions pertaining to the individualistic model and three related to the relational model. Each dimension consisted of about 10 items. Although they describe contrasting behaviours, the dimensions are not mutually exclusive, as opposite behaviours can occur in different moments (Table 1).

After the first class observation, the same observer-psychologists started with the application of cooperative learning practices in the class during lesson time, consisting of three sessions during three different lessons, in a two-month period. In the period between a session and the following one, teachers were requested to experiment by themselves the work done together with psychologists and then to discuss with them the experience in its strengths and weaknesses.

INSERT TABLE 1 HERE

C. and P. were respectively the teachers of Chemistry and of Portuguese. Both of them, supposedly, showed a positive attitude towards inclusive education for students with disabilities,

but having no preparation with regards to SEN issues, neither specific information regarding SEN students, they often looked at this approach as an additional burden that they had to solve themselves. Thus, they preferred special classes to educate SEN students. Nevertheless, they affirmed that the teachers had to do an effort to arrange their teaching style in order to consider all the students' needs, affirming that the inclusive setting was the right way to educate the SEN students.

C. and P. used a frontal teaching style, which encouraged competition among the students, making it difficult for students with hearing impairment to participate and "win" the competition with students without disabilities. The teacher dedicated his/her time either to the SEN students or to those without SEN, often one excluding the other. Concerning the two students with hearing impairment, C. tried to take into account their needs every day by writing on the blackboard, by waiting for confirmation that they understood the lesson, by putting them on the front row. He also put two of the best writing students beside them to let them copy from their notes. On the other hand P. just gave them some photocopies on the daily topic, but she never waited for feedback from them regarding their comprehension. She also put three students next to them who knew rudimentary sign language, but a vast portion of the lesson remained unavailable to them.

It was also difficult for the students without hearing impairment to participate because they always had to wait for their turn to speak. Students were quite bored and preferred to speak with their classmates. They also were often absent and hardly ever they did homework, and, basically they did not learn. In spite of C.'s efforts, students' academic outcomes were scarce, thus, he was frustrated and happened to treat them unpleasantly so that his strategy did not gave the anticipated results. He attacked their self-esteem, making them lazy and unmotivated to

participate in class. P. never embarrassed the students. She was aware that letting them learn from each other could be useful in some way, thus, she encouraged interactions among them during the lesson. P. was less worried about the scarce academic outcomes of the students and less motivated in changing things than C.. They used to give realistic, low grades but this increased their stressful condition, because of the system of evaluation (see Note 10) which affected the psychological work conditions.

There was a poor communicative exchange between the students and their classmates with hearing impairment: they neither interacted during lessons nor during breaks. The lack of a common communicative code seemed to be the main reason for this separation as well as the presence of prejudices towards SEN students.

The frontal lesson style did not help achieve the desired academic outcome. This old-fashioned teaching style made school the place where transfer of knowledge is unilateral: from teacher to student. Because of the poor academic outcomes, there was a reciprocal guilt attribution between the teacher and the students. Nobody was happy with this teaching method.

Despite the low grades, the students did not care not to pass the year, they did not expect anything from the education provided, apart from boring lessons in which they often should learn something useless for their real life.

From the teachers' point of view the Sign Language (SL) was an essential instrument to include students with hearing impairment during the regular lesson. They were disappointed to learn that we were not providing them with any training in SL. While it is certainly true that SL could facilitate communication with the students with hearing impairment, to be a useful resource for the inclusion process, it also has to be taught to the hearing students, which was unrealistic as a goal. Moreover, it seemed that a fantasy to "normalise" the relationship between

students with hearing impairment and those without was behind the teachers' request, as a reassuring condition to improve the quality of their teaching – a sort of medical approach aimed at reducing the deficit (Carli & Paniccia, 2003). Thus, SL was seen simply as an instrument able to overcome the hearing impairment, allowing the students with hearing impairment to benefit from the frontal lessons.

Changing Strategies In Class To Change Class' Attitudes: A Different Kind Of Lesson Pursuing Inclusion

The latter phase of the intervention involved only the Portuguese language class and its teacher because the Chemistry teacher had to leave for a training period abroad.

Two different types of cooperative learning techniques inspired us to create a different kind of lesson best suited to the class' situation: Jigsaw Groups of Aronson & Patnoe (1997) and "Learning Together" of Johnson and Johnson (1983).

Before and after every cooperative learning class, the psychologist (one member of the research staff) and the teacher were involved in organisational sessions aimed at understanding the new approach, at deciding which curricular topics had to be taught during the cooperative learning classes and how, and to monitor the effectiveness of the intervention.

Regarding the group formation, it was decided that during the 1st cooperative learning class, the students' social affinity should be taken into account, and in particular, students with hearing impairment would have been in the same group with their peer tutors. This criterion would not have been taken into account during the 2nd cooperative learning class, where heterogenic groups would have been chosen to expose the students to a complex social interaction in the small group made by different peers for gender, SEN or non- SEN condition, social class, personality, age, language proficiency and diligence. Also the teacher's role would have been tackled: the teacher

would have explained the cooperative learning class' structure, academic and social targets to be acquired by the students, supervising groups' work, encouraging pro-social behaviour.

The working plan included: cooperative learning class session: 2 lessons, (90 minutes); monitoring: 1 lesson, (45 minutes); cooperative learning class session: 2 lessons, (90 minutes); feed-back: 1 lesson, (45 minutes).

The feed-back lesson was dedicated to gather the students' opinions. In particular, students were asked to write their thoughts in anonymous form to make them to feel free to express themselves. In the students' papers, classes were described as an amusing experience and their highly interactive nature, lived in a supporting and diverse climate, emerged as the best points. Furthermore, students reported their willingness to repeat this experience in the future, and to be in a closer relationship with the students with hearing impairment. Students' voices showed that our work effectively addressed the initial indifference of the students in class and the active role of the students with hearing impairment in this different kind of lesson, represents not only an attenuation of their isolation but also constitutes the premise in which this problem can be solved in the future.

The First Cooperative Learning Class Session

During the 1st cooperative learning class session, the students were given the task to analyze a Portuguese text; later, one delegate from every group had to present the group's work in front of the class. The students could pass the final test only by listening to their classmate's presentation which, altogether, composed the whole content of the lesson.

Since the beginning, the students tried to facilitate the group work: first they organised the classroom space by putting the desks in pairs, then began their work sometimes asking questions to each other, sometimes looking for the teacher's help. They were visibly involved in the task

proposed and supportive behaviour was observed. The teacher, on her side, looked comfortable with her new role. During the group work she walked through the classroom to supervise the groups, and when asked to intervene she advised them to solve their own problems by cooperating with each other, but never interfering with the students' work, only letting them explore their abilities and limits. The presentation was accomplished by all delegates, in some cases they seemed really confident, in some others uncertain. However, this was the most involving and challenging moment of the cooperative learning class session. All students paid attention to their classmates' performance, and P. underlined their commitment and enjoyment, significantly higher than during the frontal lesson. At the end of the class all the students were satisfied with the new class, except for one boy with hearing impairment who was disappointed. He did not even want to talk because of his anger. Finally, his peer tutor explained what happened: he could not follow the presentations, in spite of his peer tutors' support. This was a very important information, reflecting the everyday setting: the teacher relied on the peer tutors as the only way to include the students with hearing impairment. This conflicting situation suggests that cooperative learning can't be considered as a "magic wand" in all circumstances and for all pupils and that other strategies should be explored in order to avoid the isolation of students with hearing impairment.

Monitoring: The First Exchange Between The Teacher And Students

The monitoring happened after the first cooperative learning class session, aimed at starting an exchange between the teacher and the students. Thus, asking the students their opinions regarding the cooperative learning class time, it was not only to improve it, but also to call on P. and the students to assume their own accountability in the learning and the inclusion process.

When the students were asked to express their opinion, everyone wanted to be involved in the

discussion. They enjoyed that class, but focused on a negative issue: the oral part of the lesson was inaccessible to the students with hearing impairment. At this point their position seemed similar to that of the teacher's: they would have liked to include their deaf classmates but they did not know how to deal with it. As a matter of fact, everyone seemed to delegate to someone else the task of involving the classmates with hearing impairment: the teacher delegated the peer tutors, the students delegated the teacher and the school, claiming that the school provided for the inclusion issue, for example furnishing a SL interpreter. Instead, the idea of the inclusion as a process to which all participants had to take a part was missing. On the other hand, they were asking for a new teaching style that took into account also their needs and interests. That was something possible, as they already have experienced in the first cooperative class. The inclusive class became the critical event that broke the collusion between the teacher and students. They were not satisfied with low profile lessons anymore, lessons that do not require any effort, because they had just experienced that a reasonable effort made the class involving and challenging.

The Second Cooperative Learning Class Session

In the 2nd cooperative learning class session, the students had to analyze, individually, in couples and in groups, a literature text. The evaluation test was the comparison of the groups' outcomes at the blackboard.

Some difficulties were encountered in the group composed by the student with hearing impairment, their classmate with physical disability and two non SEN peers. This group started to work ignoring the student with hearing impairment. When this student asked what he could do, only one girl answered him. She was evidently bothered and just indicated with the pencil which exercise he had to do, but the student with hearing impairment did not obey, visibly

humiliated by her classmate's irritated reaction. She did not try to understand her mate's emotions, she just felt anxiety for "wasting" her time helping her SEN mate, while she had to accomplish her part of the task. She did not even try to speak with him, she just used the pencil to communicate. After some failed interactions among them, the situation changed when another member of the same group decided to help. He spoke slowly with the student with hearing impairment and soon they were working together. From the viewpoint of the student with hearing impairment, when his mate could meet his needs, he felt supported, abandoning his initial claim and succeeding in getting involved in the task together with others. Thanks to his classmate's support, the student with hearing impairment could manage his frustration and his difficulty in communicating and in involving himself with the others. Finally, during the group work he and the bothered girl could communicate and laugh together. This event is a clear example that if everyone made the effort of interacting with the others, everyone could be included, despite the lack of a common communicative code.

The teacher increasingly learned the importance of social skills, including cooperative behaviour on the academic outcome. Lastly, all groups joined in the revision task trying to correct their classmates' mistakes, showing a positive competition among groups. Just after two weeks of intervention in this class, the teacher noticed that the social and academic performances of the students increased and she was very satisfied. Considering the higher grades of the students and their changed attitude during the class, from unconcerned to participative and collaborative, she also concluded that the cooperative learning approach could be the only useful way to keep on teaching in that class without SL.

Conclusion

The main objective of this intervention was the implementation of inclusion in a secondary school class in Mozambique. Even if the 11th grade class was inclusion oriented, the baseline assessment showed a segregated relational context which was characterised by a rigid, exclusively frontal teaching style adopted by the teachers; by the absence of communications among students with and without disabilities during the lessons; by the low level of socialisation also among students without disabilities, and, lastly, insufficient academic outcomes of the students.

The teachers could not find a strategy to teach at the same time to students with and without disabilities, preventing them from achieving the same educational aims.

In this regard, according to the literature about school reform and special education practices (Sindelar, Shearer, Yendol-Hoppey, & Liebert, 2006), our intervention seems to include some key factors which could affect its sustainability over time (Gersten, Chard, & Baker, 2000).

The intervention was carried out through organisational sessions with the teachers and the cooperative learning classes, which were the main means to promote a different teaching style oriented towards the participation of all the students, and to improve the teachers' autonomy in adapting such style on the basis of the class' resources and limitations. The intervention provided teachers with the opportunity to be observed, receive coaching in the classroom and obtain feedbacks on their teaching strategies, thus promoting their active learning and reflective practice as part of a job-embedded professional development (Garet, Porter, Desimone, Birman, & Yoon, 2001).

We would like to underline that no additional resources were employed for the intervention, apart from the teachers, the students and their interactions; peer interaction in the learning process ensured that the teaching job could be less fatiguing. Additional time also was not

requested of the teachers and the students, in order avoid overloading both the teachers, who were already fatigued from their working plan, and the students, who were unmotivated and could hardly be involved in additional school activities. The cooperative learning class sessions enabled students with hearing impairment to take part in the lessons, cooperating with their classmates in achieving the same educational aims, overcoming their attitude of claiming to be helped and exerting an effort to be included. As well as the students without disabilities, they were accountable for their social and academic performance, experiencing a different way of learning that is challenging, enjoyable and interesting. Moreover, thanks to the exchange between the teacher and the students on their teaching relationship, the students' needs and interests could be known, dealt with and considered as useful guides for the teachers to personalise the subject that they were teaching.

The results of our work show that the *Cooperative Learning* approach, adapted to the specific features of this class, was more effective than the frontal one in promoting the inclusion of students with hearing impairment. It was also more effective to improve the socialisation, the students' commitment and participation to the lesson, leading to higher academic outcomes. At the end of the intervention the teachers learned a way to educate all students at the same time, allowing the inclusion process to take place in the educational environment. Indeed, the successful adoption of innovative practices occurs when it is consistent with teachers' beliefs or teaching style (Klingner, Arguelles, Hughes, & Vaughn, 2001) and when teachers see improvements in students, especially hard-to-teach students (Vaughn, Klingner, & Hughes, 2004).

Moreover, in a later phase of the project, some training activities were planned which were addressed to academics, officials of central and local education departments, teaching directors

and school teachers, in order to guarantee a continuity between this intervention and district-wide organisational efforts (Sindelar et al., 2006) and to better sustain a school culture for inclusive process in the Mozambican context.

We hope that the clinical perspective we have chosen in reporting the intervention could be useful to make the reader understand the organisational, psychosocial, relational and emotional dimensions which could have affected the achievement of this experience. It is certainly true that such approach and the small sample size do not allow us to make any generalisations. However, it could be useful to other professionals of the field if they consider the uniqueness of the context of intervention in which they will work. Despite cooperative learning should not be conceived as an easy and exclusive way to pursue inclusive education, this contribution shows that it is possible to implement some inclusive activities in the mainstream school, especially when innovations do not require too many changes in the current functioning of the school (Huberman & Miles, 1984).

Financial disclosure information: The work was supported by the Development Cooperation of the Italian Foreign Affairs Ministry under the PRETEP project – Support to Technical and Professional Training System in Mozambique (Donor Project No. 8095 – Mozambique Budget Project No. EDU-2006-0002).

References

Alquraini, T.A. (2012). Factors related to teachers' attitudes towards the inclusive education of students with severe intellectual disabilities in Riyadh, Saudi. *Journal of Research in Special Educational Needs, 12*(3), 170–182. doi: 10.1111/j.1471-3802.2012.01248.x

Aronson, E., & Patnoe, S. (1997). *The jigsaw classroom: Building cooperation in the classroom* (2nd ed.). New York: Addison Wesley Longman.

Baglieri, S., Bejoian, L.M., Broderick, A.A., Connor, D.J., & Valle J.W. (2011). [Re]claim-ing "inclusive education" toward cohesion in educational reform: Disability studies unravels the myth of the normal child. *Teachers College Press, 113*(10), 2122-2154.

Blok, H., Peetsma, T.T.D., & Roede, E. (2007). Increasing the involvement of parents in the education of special-needs children. *British Journal of Developmental Disabilities, 53*(1), 3-16. doi:10.1179/096979507799103504

Burstein, N., Sears, S., Wilcoxen, A., Cabello, B., & Spagna, M. (2004). *Moving toward inclusive practices. Remedial and Special Education, 25*(2), 104-116. doi:10.1177/07419325040250020501

Carli, R., & Paniccia, R.M. (2003). *L'Analisi della Domanda: Teoria e tecnica dell'intervento in psicologia clinica* [Analysis of demand: Theory and technique of psychological clinical intervention]. Bologna: il Mulino.

Florian, L. (2009). Preparing teachers to work in 'schools for all'. *Teaching and Teacher Education, 25*(4), 553-554. doi:10.1016/j.tate.2009.02.004

Fox, L., Benfica, R.M., Ehrenpreis, M., Gaal, M.S., Nordang, H., & Owen, D. (2008). *Beating the Odds: Sustaining Inclusion in a Growing Economy: A Mozambique Poverty, Gender, and Social Assessment.* Washington, DC: World Bank.

Fox, L. (2012). *Education reform in Mozambique: lessons and challenges.* Washington, D.C.: World Bank.

Garet, M.S., Porter, A.C., Desimone, L., Birman, B.F., & Yoon, K.S. (2001). What makes professional development effective? Results from a national sample of teachers. *American Educational Research Journal, 38*(4), 915-945. doi:10.3102/00028312038004915

Gersten, R., Chard, D.J. & Baker, S. (2000). Factors enhancing sustained use of research-based instructional practices. *Journal of Learning Disabilities, 33*, 445-457. doi:10.1177/002221940003300505

Gibb, K., Tunbridge, D. Chua, A., & Frederickson, N. (2007). Pathways to Inclusion: Moving from Special School to Mainstream. *Educational Psychology in Practice, 23*(2), 109-127. doi:10.1080/02667360701320770

Huberman, A. M., & Miles, M.B. (1984). *Innovation up close. How school improvement works*. New York: Plenum.

Jenkins, J.R., Antil, L.R., Wayne, S.K., & Vadas, P.F. (2003). How cooperative learning works for special education and remedial students. *Exceptional Children, 69*, 279-292.

Johnson, D.W. (2003). Social interdependence: The interrelationships among theory, research, and practice. *American Psychologist, 58*(11), 931-945. doi:10.1037/0003-066X.58.11.934

Johnson, D.W. (2009). *Reaching out: Interpersonal effectiveness and self- actualization* (10th ed.). Boston: Allyn & Bacon.

Johnson, D.W., & Johnson, R. (1983). *Learning Together and Alone*. New Jersey: Prentice Hall.

Johnson, D.W.,& Johnson, F. (2009). *Joining to-gether: Group theory and group skills* (10th ed.). Boston: Allyn & Bacon.

Klingner, J.K., Arguelles, M.E., Hughes, M.T., & Vaughn, S. (2001). Examining the school wide "spread" of research-based practices. *Learning Disability Quarterly, 24*, 221-254.

Krueger, A.B., & Maleckova, J. (2003). Education, poverty and terrorism: Is there a causal connection? *Journal of Economic Perspectives, 17*(4), 119-144. doi:10.1257/089533003772034925

Langher, V., Ricci, M.E., Reversi, S., & Krstić, N. (2009). ADHD and loneliness social dissatisfaction in inclusive school from an individual context paradigm. *Journal of Special Education and Rehabilitation, 10*(3-4), 67-88.

Lindsay, J. (2003). Inclusive education: a critical perspective. *British Journal of Special Education*, 30(1), 3-12. doi:10.1111/1467-8527.00275

Machin, S., & McNally, S. (2006). *Education and Child Poverty: A Literature Review.* York: Joseph Rowntree Foundation.

Miles, S., & Singal, N. (2010). The Education for All and Inclusive Education debate: Conflict, Contradiction or Opportunity? *International Journal of Inclusive Education, 14*(1), 1-15. doi:10.1080/13603110802265125

Murphy, G., Beadle-Brown, J., Wing, L., Gould, J., Shah, A., & Homes, N. (2005). Chronicity of challenging behaviors in people with severe intellectual disabilities and/or autism: A total population sample. *Journal of Autism and Developmental Disorders*, 35, 405-418. doi:10.1007/s10803-005-5030-2

Nota, L., Soresi, S., Ferrari, L., & Wehmeyer, M.L. (2007). Self-determination, social abilities, and the quality of life of people with intellectual disabilities. *Journal of Intellectual Disability Research, 51,* 850-865.

Odom, S.L., Zercher, C., Li, S., Marquart, J.M., Sandall, S., & Brown, W.H. (2006). Social Acceptance and Rejection of Preschool Children With Disabilities: A Mixed-Method Analysis. *Journal of Educational Psychology, 98*(4), 807-823. doi:10.1037/0022-0663.98.4.807

OECD (Organisation for Economic Co-operation and Development) (2002). *Reading for Change: Performance and Engagement across Countries.* Paris: OECD.

Pellegrini, A.D., & Long, J.D. (2004). Part of the Solution and Part of the Problem: The Role of Peers in Bullying, Dominance, and Victimization During the Transition From Primary School Through Secondary School. In D.L. Espelage & S.M. Swearer (Eds.), *Bullying in American Schools: A Social-Ecological Perspective on Prevention and Intervention* (pp. 107-117). Mahwah, New Jersey: Lawrence Erlbaum Associates.

Peters, S. (2003). *Inclusive Education: Achieving education for all by including those with disabilities and special education needs.* Washington, D.C.: World Bank.

Rapp, W.H. (2005). Inquiry-based environment for the inclusion of students with exceptional learning needs. *Remedial and Special Education, 26,* 297-310. doi:10.1177/07419325050260050401

Reversi, S., Langher, V., Crisafulli, V., & Ferri, R. (2007). The quality of disabled students' school integration. *School Psychology International, 28,* 403-418. doi:10.1177/0143034307084132

Ricci, M.E., Langher, V., Tomai, M., Pirrò, V., Esposito, F., Propersi, F., & Kourkoutas, E. (2012). School inclusion of disabled students in Mozambique. A pilot project of best practices in class. In Faculty of Special Education and Rehabilitation (Ed.), *Proceedings of V*

International Conference in Special Education and Rehabilitation Today (pp. 108-113). Belgrade: University of Belgrade.

Russell, F. (2003). The expectations of parents of disabled children. *British Journal of Special Education*, 30, 144-149. doi:10.1111/1467-8527.00300

Sindelar, P.T., Shearer, D.K., Yendol-Hoppey, D., Liebert, T.W. (2006). The sustainability of inclusive school reform. *Exceptional Children, 72,* 317-331.

Vaughn, S., Klingner, J.K., & Hughes, M.T. (2004). Sustainability of research-based practices: Implications for students with disabilities. In A. Mccray Sorrells, H.J. Rieth, & P.T. Sindelar (Eds.), *Critical issues in special education: Access, diversity, accountability* (pp. 135-153). Boston: Allyn &C Bacon.

Wearmouth, J., Edwards, G., & Richmond, R. (2000). *Teachers' professional development* to *support inclusive practices. Journal of In-service Education, 26,* 37-48. doi:10.1080/13674580000200111

Endnotes

1. 1012 dollars according to the International monetary fund in 2010, or 934 dollars according to the World Bank in 2010.
2. Source: United Nations 2005-2010.
3. Source: United Nations 1995-2010.
4. Source: CIA World Factbook 2007.
5. Civil war in Mozambique, 1981-1992.

6. Source: Annex 1, Final report of the Ad Hoc Committee on a Comprehensive and Integral International Convention on the Protection and Promotion of the Rights and Dignity of Persons with Disabilities [A/61/611]. Available on: http://daccess-dds-ny.un.org/
7. PRETEP, Programma di formazione tecnico professionale [program for technical-professional training], Italian government support to Mozambican reforms in the field of education. A report of the subproject dedicated to the implementation of inclusive education in Mozambique is downloadable at the following link: http://www.academia.edu/1740686/Report_del_Progetto_Pretep_Programma_di_Supporto_alla_Riforma_del_Sistema_della_Formazione_Tecnico_Professionale_in_Mozambico._Un_progetto_pilota_sullinclusione_scolastica_degli_studenti_disabiliBlinded for review.
8. As for a complete quantitative analysis see Ricci et al. (2012).
9. The system of evaluation adopted in this school to assess the teachers uses the students' academic outcome as one of the parameters. Thus, if they are insufficient, the teacher does not get a salary raise. This system of evaluation puts the teachers in the very difficult condition: choosing between fairly grading their students and their subsistence.
10. See also: Ricci et al. (2012).

Table 1. Dimensions of the observational scale

INDIVIDUALISTIC BEHAVIORS	RELATIONAL BEHAVIORS
Control	*Exchange*
Teacher's actions aimed at discouraging students' active participation and interactions among students (hushing, blaming, punishing the students, or overtly ignoring their contributions).	Teacher's actions aimed at encouraging students' active participation and interactions among students, soliciting personal opinions and favoring the exchange.
Segregation of the student wih SEN	*Integration of the student with SEN*
The student with SEN is ignored by the teacher or by the students when s/he calls for attention; or s/he is excluded from activities in which other students are participating; or s/he makes exercises separately from the rest of the class, interacting solely with the teacher or with a tutor in separate moments of the lesson.	The teacher and the students respond to the student with SEN's requests; or the latter works with the rest of the class and interacts with the other students.
Non differentiation	*Exploration*
The teacher acts as if the class were formed of undifferentiated persons, disregarding the information students provide after an exchange.	The teacher takes care of students' individual needs and values their contributions by enriching the lesson with the information received.