

Special Needs teacher training in Italian universities: a didactic proposal for the development of PE-related skills

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Abstract

Paying more attention to physical activity in Special Needs teacher training has now become part of a new interesting approach to Plural Interdisciplinary research (Sibilio & Gomez Paloma, 2004). In accordance with the provisions of the Italian Ministry of Education, University and Research (MIUR, 2019), lab-based teaching is a crucial stage for summarizing and integrating the knowledge acquired during traditional single-subject teaching, with a view to designing and projecting education more effectively than before. So, PE-lab-based practice enables future Special Needs teachers to acquire new educational skills and develop greater professional capabilities. The present contribution evinces the lab-based active education and training course for future Special Needs teachers at University of Reggio Calabria, Italy, which envisages that the participants develop specific PE-related skills. A descriptive survey was carried out on a sample of about 200 future professors in support of the University of Reggio Calabria. The main aim of the effort is to sensitize teachers and trainers to the importance of a-priori designing and projecting in education and training approaches that want to cater for the wants and needs of all recipients. The results of the study evince the trainees' strong need for more specific PE-related training, particularly in view of its inclusive-education-oriented aims. The data yielded induce us to reflect on our need to design specific PE-related university training action that distances itself from all those practices based upon deficit epistemology of disability, which defines differences as being the product of deficit conditions exclusively concentrated on the person (Sgambelluri, Straniero, Valenti, 2020).

Key Words: University training, PE lab, skills, inclusion, Universal Design for Learning.

Introduction

The reformation of teaching and training in Italian Primary Schools has been significantly influenced by a gradual re-consideration of sport and PE in public education. This can be seen quite clearly in the primary school syllabi drafted in 1985, which has basically given physicality a new personal meaning and social significance, as the demand for physical movement and sports activities has grown more and more steadily and, like all other languages, body language is now totally integrated in the pupil's autonomous growth, as well as the development and fulfillment of their learning objectives in relation to all other aspects of human character and personality at large.

The 1985 Syllabi guided children's education in Italy for a decade until 19th February 2004, when Legislative Decree No. 59 listed the national guidelines for Personalized Primary School Syllabi specifying the essential performance levels for all Italian Primary Schools in order to guarantee each pupil's personal, social and civil right to quality education and training.

The above-mentioned guidelines show a view of schooling which is oriented not only towards knowledge, but also towards practice and action. Hence, school as a place where pupils get used to consolidating their knowledge (learning) and experience (doing and practicing), as well as to systemically integrating the two dimensions and acquiring the first formal, semantic, syntactic, single- and multi-subject-oriented organization of knowledge deriving from the aforesaid considerations. To this end, Italian Primary School operators have started to consider physicality a resource, as they are well aware that each and every symbolic aspect motivating the child and their family and relations cannot be separated from their body. Nothing within the human person can be separated or detached, and the human body is not the individual's clothing, but the individual's global way of behaving in society and being part of the world. That is why the appraisal of body expressions is both the condition and result of the appraisal of all other dimensions - rational, aesthetic, social, operational, affective, moral and spiritual-religious.

The legislation changed again on 31st July 2007, when the National Curriculum Guidelines provided new indications for Sport and Physical Education in Italian Pre-Schools and Primary Schools.

The latest national guidelines for pre-schools and primary schools, which were issued on 4th September 2012, evince a revival of PE as an autonomous subject, no longer just a prospective area of interest - PE was also considered a great contributor to the personal training of the pupil, inasmuch as it fostered further and wider

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knowledge and awareness of their own physical identity and triggered their continuous and continual need for movement as a constant benefit to their persona and well-being.

The guidelines also indicate a strong connection between education to movement and lifestyles - being in harmony with oneself entails that the PE curriculum include experiences tending to consolidate correct and healthy lifestyles as pre-requisites of a personal culture that considers sport and PE, even out of school, an important activity preventing hypokinesia, obesity, unhealthy eating practices, scarce motility, early abandonment of sport and consequent drug addiction.

So, the body as an expression of an individual's personality and relational, communicative, expressive and operational condition reasserts itself as a resource expressing the person as a whole. The body is a "knot of living meanings", man's indispensable place in which and thanks to which all the living data intertwine, ranging from self-consciousness and self-awareness in space and in time to their relationship with other people, things and eternity. It is "*my place in the world*", i.e. the immediate expression of one's own presence in it.

Therefore, the revaluation of the human body finds its roots in its reformulation as a medium of knowledge and communication with oneself, with the others and with the world around.

Within this particular pedagogic scenario, children assimilate and learn about the world through their own body and only later do they voice and word the perceptive world they have built, thus giving dynamic shape to each and every further integration of knowledge, emotion and communication; starting from their physicality and going through the free movement of their body, the child begins to elaborate that information which enables them to autonomously structure the world of things, feelings and ideas, in relation to themselves and the others.

The legal route traced so far clearly evinces a revaluation of physicality and movement as premium environments for personal growth and development which advocate the adoption of a form of body-attentiveness that re-considers the role of PE in teaching and learning at large.

It is therefore necessary to identify a model that can be used to develop professional action and to acquire new teaching practices on quality and its evaluation; in particular, this article is concerned with the quality of the motor dimension, also in a laboratorial way, in its aspects of methodology and content.

The Special Needs Teacher Curriculum at Pre-School and Primary School: towards a movement-attentive teaching approach

The extension of Special Needs student inclusivity to all kinds of Italian schools at all levels has called for a revisitation of inclusive educational approaches in the name of each and every pupil's diversity and originality. In line with the principles of individualization and personalization stated in the Framework Law for the disabled people's right to social assistance and integration (No. 104, 1992), various documents by the Italian Ministry of Public Education somewhat define diversity as being *an indispensable asset to be held in high esteem* as early as in primary school, as has been witnessed by the identification of manifold diversified Special Needs-pupil-integration-oriented teaching and learning routes. The most recent Italian Public Education Ministry Decrees (No. 67, 2017) evince all school operators' indispensable commitment to ensure the Special Needs pupils' learning success (No. 66, art. 1C, 12th April 2017).

As corroborated in Decree 67 of 2019, schools must consider further and wider inclusivity action down the classes' or Special Needs pupils' learning routes by indicating specific teaching support, learning objectives, strategies and tools in the various subject and subject areas, starting from primary school as the earliest cozy environment and getting the pupils themselves involved according to their own *special* learning needs.

As early as in 2012, however, official documents by the aforesaid ministry had vigorously expressed the need to define and design a school curriculum based on the learner and their original learning route, as well as on the opportunities offered by the learner's network of family and social relations.

This is done in order to value the original aspects of anyone's personality starting from everyone's singular, complex and articulated identity, aspirations, capabilities and weaknesses through the various stages of their growth, learning and development. Particular attention must be paid to the definition of Special Needs pupils' learning routes in order to foster *their feeling well at school* (Miur, 2012). This is achieved by placing these pupils at the centre of a teaching process that would by no means ignore the cognitive, affective, relational, physical, esthetic, ethical, spiritual and religious aspects of education.

The *central role of the Special Needs pupil* advocated by the Italian Public Education Ministry decrees of 2012 is the real heart of those educational proposals oriented towards inclusivity and the consolidation of inclusive practices right from the earliest stages of schooling.

The pupil's daily experience at school is a constant opportunity for their growth *within an educational contest oriented towards well-being, existential questions and the gradual development of skills* proportional to the type of deficit and level of seriousness involved. The alternation of PE-related activities at school overtly and covertly fosters each and every Special Needs and non-Special Needs pupil's implementation of energies and resources, thus facilitating their access to learning tools and instruments.

After all, inclusivity entails the acquisition of a wide ecosystemic perspective with interactive dynamics between individuals and the contexts they belong to.

It is not enough to adapt Special Needs people to their contexts; contexts must also be transformed by means of specific mediators enabling the various participants and events to interact effectively and fruitfully to create the best learning conditions possible.

Therefore, curricula must be replanned in such a way as to include *significant* activities as opportunities for personal growth within an educational context oriented to well-being, existential questions and the gradual development of the most diverse age-related skills.

Thus, the new pre-school and primary school curriculum basically envisages learning routes oriented towards the search for connections between the various types of knowledge, with a particular emphasis on planning diverse and manifold activities for each and every kind of pupil. It is up to the teachers, pre-school and primary school ones respectively, to choose the most convenient route to enable pupils to achieve the best results possible. This could be achieved by elaborating specific choices of contents, methods, planning and assessment in line with the objectives thereof.

The school route from age 3 to age 11 indicated by the most recent national provisions is guaranteed by the adjustment of the various levels of development of experience- and subject-matter-related skills. Centred as they are on the recognition of the paramount multiplicity and diversity of access keys to knowledge, these provisions stand as indispensable reference for teachers. They indicate teaching and learning paths to tread and help finalize all educational efforts towards the pupil's harmonious integrated development. Planning university routes and strategies becomes fundamental in order to guarantee adequate training for Special Needs-teachers-to-be (MIUR, 2011).

By the end of the first level of education, schools shall have specifically promoted basic literacy through the acquisition of the manifold and diverse languages and codes typical of all subjects.

The structuring of a school curriculum dedicated to children's needs enables both Special Needs and non-Special Needs children (if they are guided appropriately) to develop a personal ability to face problems and difficulties by means of learning patterns that kick in just when they try to acquire a new skill (Gardner, 2002).

Particular attention must be paid to the pupils' natural needs for playing, movement, expression, intimacy and sociality (Sibilio, M.; D'Elia, F., 2015) which thus act as guiding elements of the teaching and learning effort.

The body and movement dimension is practically one of the educating "codes" that facilitate the child's acquisition of skills and abilities. In their turn, national guidelines acknowledge the deep significance of "body and movement" as an important instrument of contact with oneself and the others, as much as anything else.

The guidelines state that the human body has expressive and communicative potential which materializes in a language featuring an autonomous structure of its own and rules that the child learns and recognizes through specific educational routes - kinesis experience helps the individual to integrate the various languages, alternate words and gestures, accompany their listening to music or telling stories and foster the construction of their self-image and the elaboration of their body scheme.

The experience field titled "Il corpo e il movimento" (Body and Movement) ascribes a key role to the child's daily actions; movement is the first learning factor: searching, discovering, playing, jumping, running at school is a source of psycho-physical balance and well-being.

Acknowledging the close relationship between body and mind translates into building an experience field where PE-related activities are bound to strengthen the child's personal identity at three levels - body, mind and psycho-dynamic development. From this new perspective, motion-based activities tend to promote the child's ability to value their psycho-physical dimension, as moving their body enables them to experience pleasant feelings and emotions, such as tension and relaxation.

In the national guidelines of 2012, body kinesthetics is acknowledged to trigger the psycho-cognitive and socio-relational development of the individual, inasmuch as the satisfaction deriving from their controlling gestures and coordinating with the others enables them to experience their own physical qualities and drawbacks and helps them develop greater awareness of the risks of making uncontrolled movements.

Therefore, the body and movement dimension becomes a medium for knowledge and communication with oneself, the others and the world around.

The child uses this medium to understand, share, help and cooperate. From this pedagogic perspective, body and movement can be the protagonists of socialization during childhood, in that they enable the child's inter- and intra-personal relationship with the other children the same age. They compare their skills and experience self-respect and the respect for others by expressing needs that can hardly be expressed verbally. Therefore, teaching PE-related activities fosters the pupil's ability to learn to finalize their actions towards a goal. It also educates children to individually and collectively behave in socially useful ways, as they bring their bodies to school, play with them and represent, communicate and express them with their mimics.

They disguise themselves, put themselves to test, even in these ways and situations they perceive the completeness of their own selves by consolidating their autonomy and emotional security. A child's development of the socio-relational dimension of their physicality is a prerequisite for them to fully experience their body as a symbol of their Ego and as an actor in their relations with the world of others.

Still according to the national guidelines of 2012, the child's gradual learning of their own physicality and body identity at pre-school is based upon their ability to read and interpret the messages coming from the others' bodies and their own, which they respect and care for. It is fundamental for pre-school and primary school teachers to welcome, value and extend the pupils' curiosity, willingness to explore the world and propose activities. It is also vital for teachers to create learning opportunities to foster the organization of what pupils are about to discover.

To this end, the targets the new national guidelines of 2012 established for the pupils' development of skills and abilities present suggestions, caveats and warnings for teachers to responsibly create working routes to design activities and experiences aimed at fostering what at this learning age is global integral competence. The national guidelines of 2012 place great emphasis on Physical Education and claim it is crucial in promoting the pupil's knowledge of themselves and their own potential; moreover, it contributes to shaping their personality through the knowledge and awareness of their own body identity.

By promoting sport and movement, PE teachers can give Special Needs and non-Special Needs pupils valuable opportunities to appraise, accept and experience the changes in their own bodies as expressions of the growth and development of their own self-image in comparison with that of each and every other pupil their age. The body and movement dimension is crucial for designing an integrated educational action, inasmuch as it enables pupils to experience their ability to select various and diverse communication modes.

By moving their bodies, pupils make a whole lot of gestures ranging from mimics to dancing and the most variegated sports performances, experience their physicality and explore the space around them and learn to communicate and relate with the others adequately and effectively. Sport and movement promote and enhance the pupil's sharing cooperation and teamwork with their classmates.

Thus, PE-related activities become wonderful instruments of mediation in relationships and encounters by contributing to the pupils learning how to modulate and control their own emotions. The pupil's acquisition of their own PE-related skills and their opportunities of experiencing the success of their own actions boosts their self-esteem and widens their experience by enriching it with new stimuli. This dictates that the movement-oriented educational curriculum envisage experiences tending to consolidate the pupils' egosyntonicity.

The national guidelines 2012 invite teachers to stress the pupil's practical skills, thus making them a constant protagonist who is more and more conscious of the PE-related skills they have progressively acquired. Seen in this light, the pupil's movement-related activity can be considered positive experience, inasmuch as it helps them best develop their inclinations, express their curiosity, recognize and tackle problems and difficulties, increase their self-consciousness and start building a life plan of their own.

While defining the various subject areas and experience fields that structure pre-school and primary school curricula, the aforesaid documents give teachers the responsibility of tracing educational routes that could harmoniously encompass diverse PE-related knowledge and skills to design innovative educational proposals on.

From this perspective, lab-based Special Needs teacher training master programs and syllabi are fundamental in focusing on how each pupil mobilizes and organizes their own resources (knowledge, skills, attitudes, emotions) to effectively face the situations that our world proposes everyday, in relation to their own potentials and attitudes.

So, PE-based Special Needs teacher training becomes an integral part of an appropriate pedagogical design which basically means the inability to give sense and intentionality to a complex blend of diverse spaces, times, routines and activities. In its organizational and training aims and objectives, assessment is the substrate that this original articulated testing-oriented structure rests on.

This new awareness was included and accounted for in the most recent national Special Needs and ordinary pre-school and primary school teacher training guidelines by the Italian Public Education Ministry in November 2020. It has helped stress the importance of assessment in training, whose aim is not to classify students, but to help them improve their growth and development as future teachers, thus paving the way for their hopefully greater success in future national exams and competitions. As early as in 1985, primary school syllabi signaled close interrelation between programming and assessment, thus presenting suggestions, caveats and warnings for teachers to responsibly create inclusivity-oriented working routes, design activities and experiences aimed at removing barriers of any kind and nature and include various forms of diversity disability, disadvantage or impairment.

As was articulated in the specific experience field titled "Il corpo e il movimento" (body and movement) within the national guidelines for Italian pre-schools in 2012, in all its ludic, expressive and communicative forms, physicality in movement is practically the pre-school pupil's first effective form of education. Like all active methods, physicality in movement can be said to treat the child's needs, along with their focus on achieving their objectives, as the main factors triggering effective school activity (to paraphrase Le Boulch), inasmuch as it fosters the pupil's acquisition of the main prerequisites for gradually accessing more mature forms of physiological competencies, cognitive abilities and social skills.

It is a real alternative route through which the Special Needs pupil can experience their own diverse features by starting to explore their personal resources that would otherwise have remained unexpressed. So, through the pupil's movement and exploration, their affective, social and cognitive needs interact with one

another and manifest themselves as kinetic experiments aimed at conquering the world around and building personal identity: *“through others, we become ourselves (...)”* (Vygotskij, L.S., 1990).

As stated in the national guidelines of 2012, thanks to their ludic body kinesthetic activities, Special Needs pupils satisfy their personal freedom of expression and the opportunity of integrating the various languages, alternate words and gestures, accompany their making and/or listening to music or telling stories, as well as search for original ways of reading and interpreting messages coming from other pupils’ bodies and their own.

When playing and moving their whole bodies or just some parts, Special Needs pupils learn by freely delving upon their experience and/or general and specific knowledge, which they elaborate with a continuous autonomous activity by participating in class, independently of the type or level of disability.

The vicarious function of the body and/or body parts in movement shown in PE routes gives Special Needs pre-school and primary school pupils the opportunity of gradually developing various levels of personal and social autonomy, as well as searching and adopting possible solutions to daily school problems.

Quite frequently, Special Needs pupils, especially the pre-school and primary school ones, naturally access effective solutions by using their body kinesthetics as tools, because their bodies are starting points of orientation, experimentation and formalization in space and in time, or reference centres for symbol elaboration and exchange (to paraphrase Gaiffi, 1989).

The particular emphasis the national guidelines placed in 2012 on playing and body kinesthetics in pre-school and primary education fulfills the principles of inclusivity and paves the way for the creation of a language featuring a structure of its own and rules that the pupil learns through specific educational routes.

The primacy of ludic and PE-related activities in the school curricula detaches any physical exercise from any feature that makes it sheerly mechanic. As Frabboni and Pinto Minerva pointed out in 1999, PE as education to conscious and constructive use of one’s own body is supposed to foster experiences that could trigger the pupil’s meaningful confrontation with the others.

To paraphrase Canevaro (2012), starting the pre-school and/or primary school routine from a ludic and body kinesthetic experience entails that the Special Needs pupil not only try to understand what and who surrounds them or “sit back and wait” to see what happens, but also let teachers and classmates support them in a natural non-invasive manner.

The opportunity of coming into contact with the other by playing or moving one’s body enables the Special Needs pre-school and primary school pupil to overcome any possible integration and inclusivity problems. A wonderful example of this is the pupils’ participation in plain and simple activities whereby their spontaneity is central when it comes to building their first relations with their classmates.

The tracing of ludic and body kinesthetic routes argued for by the national guidelines of 2012 reflects Vayer’s view that educational action and learning context must be designed according to the education of the pupil’s self body image in an environment centred on the pupil, their age and their needs (2005).

Egocentricity gradually leaves room for sharing, physical and social exclusion and self-exclusion give way to co-participation, and the Special Needs classmate’s attempt to tackle difficulties of any kind is comprehended and supported by all other pupils.

Each child in a recreational situation entailing a ludic PE-related activity gradually learns to use their classmates’ support at best and is ready to use their own resources with genuine interest to put them at their needy classmate’s disposal. After all, by paraphrasing Canevaro (2015), one might say the presence of Special Needs pupils in school is a dynamic source of relations and interactions so unique and precious as to become, in its turn, a significant opportunity for everybody’s growth and development.

PE-related competencies in the Special Needs teacher

When one talks of PE-related competence, one can mean either a) the necessary preparation for a teacher to provide a complete or b) effective body kinesthetic education and the set of modes and contents that constitute the pupil’s ability to move their body.

The official documents issued by the Italian Public Education Ministry introduced the Italian term “competenza” (competence or competency), which would from then on become common in educational discourse, so much so that since syllabi were replaced by guidelines it has entered the general teacher jargon and is basically taken to mean, to paraphrase Bertagna (2000), an educational project that would encompass an active attitude or behavior beneficial to global personal development and personalized teaching.

The evolution of the PE-related competence training process must entail the definition of the areas of action, of the contents and of the organization of scientific evidence and praxis first, and then the knowledge of teaching methods bound to convey and spread the body kinesthetic competencies themselves.

So, a body kinesthetic competency is not only a sport or PE-related performance, a plain and simple body movement skill; to paraphrase Ubaldy (2005) and Colella (2018), one may say it is connected with the knowledge related to a specific context and acquired according to the pupil’s skills.

Therefore, if one analyzes the term “motor competence”, one cannot ignore that in its original broad sense it detaches itself from the mere evaluation of quantitative and qualitative performance to necessarily

encompass the mutual relations between teacher, pupil and context that end up making the educational relation and acting as pivots of motor competency learning.

Seen in this new light, education is still oriented towards the personalization of teaching, i.e. the analysis of each and every student, their environment and specific personality, the observation of single aptitudes and development. Colella (2001) claims that a motor competency expresses the integration of notions (the various kinds of knowledge needed for performing a task of body kinesthetic activity), motor skills (the know-how-to-do's) and behaviors (the know-how-to-be's) on the basis of personal abilities.

To achieve the above, it is absolutely necessary to promote the role of the Special Needs teacher, i.e. of one who is capable of adapting to a wide range of actions and situations that might as well be due to the personalities of pupil's with special or subjective needs, hindrances or impedimenta, not only of a sport- or PE-related type, but also of incorrect perceptions of their own psycho-physical autonomy.

The Special Needs teacher's function and usefulness consists in their being prepared to activate and coordinate the pupil's notions, abilities and personal attitudes that help identify, correct or merely assist people with difficulties expressing themselves in inadequate situations and contexts. The teacher can be said to be body-kinesthetically-competent when he succeeds in using and triggering motor skills and knowledge and applying them in various contexts in order to solve problems. It is therefore convenient to create motor labs for training teachers. These motor labs should take into account motor experience as a key factor for psycho-physical development.

Through its movement, the human body is naturally prone to express tensions and emotions which conscious practice turns into competencies oriented both to personal and relational well-being and to educational and re-educational work. Experiencing school life in a live place full of action increases the pupil's motivation to learn and grow. Thus, learning depends on environmental stimuli, motivation and, more generally, experiences that enable the development of our perceptive, cognitive and emotional mechanisms and dynamics. Learning conditions and the influence of environmental, psychological and educational factors must be taken into account as well.

The US National Association of Sport and Physical Education (NASPE) coined the term *Physically Educated Person*, meaning to symbolize the direction that schools should take to provide a PE-based form of global education.

When observing how the individual works, the International Classification of Functioning places particular emphasis on context as a barrier or facilitator of inclusivity. To paraphrase what the Italian Public Education Ministry indicated in these respects, one can say that teachers are called upon to respond to an educational emergency through individualized and personalized strategies addressing everyone without neglecting anyone (2012). An education based on PE as a *hinge topic* (2018) is able to implement cross-subject teaching by performing a specific function in promoting socio-relational competencies in line with the Citizenship Competencies to be acquired at the end of compulsory education (2007).

To paraphrase Maulini (2016), one may say that research shows that, apart from stimulating basic motricity, PE-based education triggers the acquisition of values that orient behaviors within a dimension of personal and social responsibility.

Body kinesthetic experience enables us to place ourselves within a physical world as physical, somewhat unaware, beings, inasmuch as we are, as Blumentberg (2012) substantially put it, only partially aware of our own being and of the experience through which we identify our own conscience.

Therefore, a form of "operational" learning has made its way, which is founded on the participants' operations, concreteness, the value of their actions and specific activities. This new education system is based on body movement and manipulation and has often taken on a ludic connotation.

The individual is placed at the center, along with their own needs, and priority is given to inclusivity and the acceptance of diversity: this can be achieved by placing greater value on what the pupil can become within their living environment than on what they know from a merely factual point of view.

According to Pellerrey (2000), by fostering the pupil's motricity, these educational strategies promote the uniqueness and unrepeatability of each individual. As the teacher is prepared to understand different cultures and subjectivities, they is the only one to put single pupils together and enable them all to communicate in an inclusive manner, by drawing upon their professional competencies and personal resources.

Material & methods

For the present survey has been organized the PE Lab as an Educational Opportunity for Special Needs-Teachers-To-Be. The Italian Public Education Ministry Decree of 2017 corroborates the need to train professionals by activating Masters' Degrees in order to guarantee the implementation of training schemes for Special Needs teachers at pre-school and primary school level. These training schemes can be implemented thanks to theoretical and practical study routes showing the teachers' involvement in field research through lab-based training sessions. In their turn, labs as experiment platforms are real test benches contributing to the Special Needs teachers' active and direct participation in real life situations and events.

Among the various labs in the future Special Needs teacher curriculum, the PE lab seems to provide a specific competency which can translate into a vicarious use of movement-based activities – a path that can educationally be trodden by teachers who will be ready to put their diverse abilities to test. In the past few years motricity has been the background for the creation and integration of new educational scenarios in Italian universities.

Following on the considerations above, we must point out the importance of fostering the acquisition of specific PE-related competencies by future pre-school and primary school Special Needs teachers. This can no doubt accelerate inclusivity processes based on extraordinary motor-educational potentials.

This has also shown our need to support lab activity for Special Needs tasks in university training routes, so that specialized teachers can come to master a new view of learning which is not necessarily normative, but is still oriented towards a new important educational perspective.

Aim

The basic idea of the educational methods and routes lab on motricity for Special Needs teachers at University of Reggio Calabria, Italy, is a more in-depth study of certain motion difficulties which have now become common, but not yet educationally dealt with, in order to build flexible educational routes accessible to all students.

Participants

A descriptive survey was carried out on a sample of about 200 future professors in support of the University of Reggio Calabria.

Instrument

Active formative training lab activities for future Special Needs teachers envisage designing project work (Fig.1) on specific PE-related activities that the teacher assigns through the explanation of internationally-validated motricity tests (Beery, 1982; Beery, 1997; Galifret-Granjon, 1960; Henderson & Sugden, 1992), whereby work groups are created.

Results

The results of this research come from studying and reading the students' project works. The project works allow to evaluate the knowledge that students have on motor skills. In addition, cooperative learning is evaluated as an alternative teaching methodology. The realization of project work consists in the implementation of a project activity built together; in this way, the motor laboratory, respecting the rhythms and learning styles of each student, will allow to carry out a meta-cognitive evaluation and self-evaluation of the knowledge gained.

As it is inspired by the cooperative model *Learning Together* by David and Roger Johnson (Johnson et al., 1994), the work of our single groups (divided according to the type of school) can substantially be broken down into five important operational stages:

- positive interdependence, whereby the teacher assigns clear tasks entailing a common objective;
- direct constructive interaction, whereby students might as well study together by sharing resources and promoting everybody's participation;
- the development of specific social skills, whereby the teacher illustrates the skills necessary to establish interpersonal relations within a small group – make decisions, listen to all, acting as a leader, manage conflicts, formulate open questions;
- individual responsibility, whereby each group will have to prove to be responsible for the achievement of both individual and collective objectives;
- group work assessment, whereby group members discuss and verify the progress made towards reaching their goals and the effectiveness and efficacy of their work relations.

Along with their planning and designing, teachers activate an assessment process of all activities they went through on a cooperative-learning basis, and do so according to a criteria-based evaluation rubric (Manis, C., Teacher-Written Eduware LLC, 2012).

The evaluation rubric used encompasses four assessment areas, each one referring to the following criteria:

1. contribution to knowledge;
2. group work and sharing with the other members;
3. contribution to reaching the goals;
4. consideration of the other members (see Fig.2).

Choosing to resort to a cooperative kind of learning arises from our awareness that in order to create an inclusive environment, one educational methodology must perforce be considered, which simultaneously involves everyone without neglecting anyone of the participants, respecting individual diversities and avoiding the use of individualized routes.

Building a cooperative environment constitutes the scientific evolution of group work, so it is the group that works if and when it does, because it is the group that enables the structuring of a real form of cooperation.

After Booth and Ainscow's indications (2002), we may stress our need to place great emphasis on motricity in cooperative learning, inasmuch as it is a possible facilitator which is bound to increase everybody's accessibility and participation.

Fig. 1. Structure of the Project Work Special Needs Teaching Trainees adopted during the PE lab

PROJECT WORK	
Title	
Product	
Key Competencies	
Objectives	
Recipients	
Prerequisites	
Activities (implementation stages)	
Spaces	
Timeline	
Disciplines / Experience Fields	
Methodology/Strategies	
Human Resources Involved	
Instruments and Tools	
Assessment and Self-Assessment	

Discussion

The results of the study involving about 200 future Special Needs teachers at University of Reggio Calabria (Sgambelluri, Vinci, 2020), which was carried out last year, evince the trainees’ strong need for more specific PE-related training, particularly in view of its inclusive-education-oriented aims.

The data yielded induce us to reflect on our need to design specific PE-related university training action that distances itself from all those practices based upon deficit epistemology of disability, which defines differences as being the product of deficit conditions exclusively concentrated on the person (Sgambelluri, Straniero, Valenti, 2020).

Action guided by this logic envisages the absolute overlapping of disability and deficit, whereas the paradigm of inclusivity refuses this correspondence and considers disability (ONU, 2006) a condition whereby the deficit is due to impairing processes which are substantially context-generated.

So, it is not people that have to be included; it is processes, spaces, action, timeline, that have to be designed and projected in a universal (Medeghini, Vadalà, Fornasa & Nuzzo, 2013; Valenti, 2019) inclusive (Mace, 1985) manner.

The fundamental Universal Design idea is that what has been designed for individuals with disability will inevitably adequate for individuals without disabilities as well. Therefore, it is a paradigm of inclusive design for all those teachers that want to consider the needs of each and every student within the whole designing process.

Consequently, based on the idea of intentional systematic pre-designing in order to tackle differences, the pedagogic approach of the Universal Design for Learning (UDL) is surely the most adequate way of tracing educational routes that are viable for everybody.

Conclusions

Motor laboratory represents the *place of doing* where specific skills are acquired and the role of the teacher is thought about practices and actions and not on the mere transmission of knowledge. During a workshop activity the student becomes the active and reflective protagonist practical experience and the teacher is the facilitator who allows the development of specifications personal and professional skills that will be part of the cultural background of the future support teacher.

The results of this research show that the Special Needs teacher training requires the tracing of viable educational routes that would favour not only the development of specific PE-related competencies, but mainly a new way of interpreting and combining them, thus innovating and improving higher education itself.

The most recent research threads (Gomez Paloma et al., 2017) place so much emphasis on the role of motricity in teaching and learning. That is why it is very important that Special Needs Master training courses set great store by PE-related activity within their fully trans-disciplinary orientation.

Moreover, Special Needs teachers will be called upon to promote learning contexts where they will no longer have to abide by their students’ requests, as they will eventually be able to listen to their students’ ideas and proposals. It will be up to Special Needs teachers to show their own intentionality (Nigris, 2019) through specific knowledge and competence that will enable them to analyze contexts, prior student situations and other conditioning factors in order to design the educational action appropriate to specific educational needs.

Conflicts of interest

The authors declare that there are no conflicts of interest.

Author Contributions

Rosa Sgambelluri wrote “Material & methods, Results, Discussion and Conclusions”; Ambretti Antinea wrote “The Special Needs Teacher Curriculum at Pre-School and Primary School: towards a movement-attentive teaching approach”; Lucia Pallonetto wrote “PE-related competencies in the Special Needs teacher”; Carmen Palumbo is the scientific coordinator and she wrote “Introduction”.

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