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## **Inclusive Sport Possibilities: Educational Study on Paracanoe**

**Angela MAGNANINI**

Pau Espinosa University of Foro Italico, Rome, ITALY

**Email:** [angela.magnanini@uniroma4.it](mailto:angela.magnanini@uniroma4.it)

### **Abstract**

Sport is increasingly recognized as an instrument to promote social inclusion values. Some of our motor learning moments, physical, psychomotor and sportive activities, could help people with disabilities as a stimulus to regain the lost or ever developed capacity. People with disabilities can use sport as a tool to have a better control of their body and to improve their own identity through sports competitions, resulting in an increased self-esteem. Several sports have moved to this dimension and one among them is Paracanoe, which is canoeing for athletes with physical impairments. Paracanoe events will also debut at the 2016 Summer Paralympic Games at Rio de Janeiro. This paper aims to investigate the benefit of canoe sports for people with disabilities, with particular attention to the processes to enhance inclusion. A pedagogical qualitative research was conducted through a questionnaire, administered to the athletes of the National Italian Paracanoe Team and through face-to-face interviews. The study intend to highlight the strong inclusive nature of this sport (where each athlete feels abled-bodied) in addition to physical benefits, in line with the scientific literature.

**Keywords:** Inclusion, Paracanoe, disability sports, special education



## **Introduction**

Practicing any sport, when used as a tool to promote health, quality of life, and social integration, is an universal cultural construct that crosses divisions of disability, age, gender, socioeconomic status and ethnicity (Blauwet *et al*, 2012). Many sports and physical activities are entering the world of sport for people with disabilities. For people with disability, practicing sport represents an important opportunity to growth, promoting an harmonious development of emotional and cognitive functions, and motor ability (Di Nocera, 2000). Furthermore, sport for people with disability, intended as therapeutic and rehabilitative process and as an integration instrument, aims to find and enhance the residual capacities and untapped potential. In this way, it is easy to see that the reinforcement of general well-being, closely linked to life experiences and to the circumstances in which people lives, passes through sports and physical activity (DePauw, 2005).

On this line, the UN Convention on the Rights of Persons with Disabilities (New York, 2006) at the article 30, in addition to claim the right of all to practice any sport, encourages the active participation of people with disabilities in sports activities of all type. Practicing a sport should not be an exceptional right, but represent an opportunity for social and self-improvement through a mainstreaming path, which in the Italian educational field from the seventies of the twentieth century has increasingly focused on people with disabilities aspects and contexts of life, throughout life.

During the year 1992, the 104 law reiterated the integration process as a fundamental element of a democratic civil society, which must be accessible and functional at each occasion and context for people with disability, thus also in sport and leisure. This process of integration in the sports world must be understood in two directions, as outlined by the Special Education, the study field through which will be carried the emerging elements of this analysis.

The first direction refers to an external purpose, which is a sport conception intended as an instrument to enable people with disabilities to integrate better in society, acquiring more skills in their own time and in sports activities; the second direction is referred to an inherently inclusive connotation of sport.

To create, in fact, inclusion ways and processes is necessary to build, design, models, plans and products already for themselves integrated, adapted and functional to everyone. For this reason, we believe that only through a sport concept educationally based on an inclusive sense, where physical accessibility becomes practical accessibility based on equal opportunities, is possible to create real conditions for a common world.

The inclusion is intended as multidirectional "educational" process with a complex and flexible relationships system. Taking part of this system it is also the social, political and cultural interactions able to involve actively all people, without any kind of distinction, in all periods of life and able to create an open and non-discriminatory society where citizenship becomes protagonist of the process. This idea of inclusion must establish a new sports concept.

The Italian pedagogical literature has been working in this direction (de Anna 2009, Magnanini 2010; Moliterni 2013, Magnanini, Trull 2016) showing how to play sport all together, not eliminating the healthy competitive spirit. This possibility requires an inclusive design that can be built in three directions:



- 1. Transform existing sports to make them inclusive (from basketball or wheelchair basketball to baskin-integrated basketball (Magnanini 2010, for example);
- 2. Introduce the "reasonable accommodation", as reported by the UN Convention of 2006, in the ordinary sports to make them accessible and inclusive.
- 3. Create new proposals, already functional to everyone.

This study will take into consideration the Paracanoe as an example of combination between the three directions.

Paracanoe is the term used to indicate the sport of canoeing and kayaking for people with physical disabilities. Paracanoeing is exactly like regular canoeing and kayaking sport. The competition consists in an individual race where the athlete should arrive to the finish line as quick as possible and requires strength and power to accelerate the craft and to maintain a high speed. Paracanoe will debut as Paralympic Sport at Rio 2016 in 200m sprint events. For this first important appointment, there will be 6 different Paracanoe events (Figure 1), three for men and three for women, in the three different classes of functionality.

| Men      | Women    |
|----------|----------|
| KL1 200m | KL1 200m |
| KL2 200m | KL2 200m |
| KL3 200m | KL3 200m |

**Figure 1.** Paracanoe Olympic events

A disabled sport (the canoe transformation), that proves to be a privileged viewpoint to conduct our discussion on inclusive design and the possibility to open the sport to all, without that difference to which the suffix refers para. It would be enough, in fact, to introduce some "reasonable accommodations", to create, over the canoe and the paracanoa, races and competitions where athletes with and without disabilities can compete together. This is possible for example in the specialty K1 200 m. where the timing of the able-bodied are not much different from those of athletes with disabilities, in the Canoe World Championship at Milan.

In this study, through the analysis of interviews with para-canoe athletes we intend to show how normality is a condition that sport could promotes, as well as demonstrating how sport, and more specifically canoeing and kayaking, can generate a state of well-being and what are the reasons that lead an athlete to practice these sports (Magnanini, Espinosa, 2016). The study analyzed the physical and psychological benefits of canoeing, and whether or not these are linked to the benefits reported in the scientific literature (Bertini, 2005; Blauwet, 2012). Considering that sport has the possibility to improve both physical and psychological conditions for those who practice it, the goal of this investigation is to verify how paracanoe contributes to the general well-being of those who practice it. Paracanoe movement, from its first official appearance in the international arena in 2009 up to the inclusion in the



Paralympic program of Rio 2016, has experienced a significant progress on both technical and scientific areas. Numerous scientific researches (Tweedy et al, 2014; Webborn et al, 2012; Hudson et al, 2014) has a critical role due to improve the training methods, physical preparation, classification systems and regulations. On the other, research has not focused on the psychological state of the athletes, which not only affects to the race performance, but could also be an effective instrument of inclusion and integration.

## **Materials and Method<sup>1</sup>**

The study was carried out using a questionnaire created according to the guidelines from scientific literature (Thomas et al, 2012), and administered by a face-to-face interview. The questionnaire was structured in two parts: the first part focused on the athletes characteristics and the second part focused on the coach/technician that lead the athlete. The first part of the questionnaire, divided into three sections, contained items about general information, about disability condition and about sports activity and its relations with the perception of the psychophysical condition. In the second part of the questionnaire the coach/technician was asked to give a feedback on each athlete's characteristics, in order to obtain objective information and check the accuracy of the athlete's answers. The questionnaire contained a total of 13 items, excluding the section devoted to personal information, with a combination of essay and multiple-choice questions. The questionnaire was administered during the Italian National paracanoe meeting, at the federal center of Castel Gandolfo, Rome, that took place on February 21 through February 28, 2016. Data was collected in two separate days and, thanks to the availability of Federation and technical director, it has been possible to monitor the athletes during all their activities. This circumstance has also allowed to establish a climate of confidence and increase the level of interaction with the athletes, which proved to be decisive for the quality of the interviews and the subsequent analysis of the data. Data was collected through questionnaires, but then has been inserted into an electronic spreadsheet to simplify the subsequent analysis. At the same time, all interviewed athletes were classified and numbered (A1, A2, A3, etc.), in order to facilitate the identification of the questionnaire responses. Subsequently, a descriptive analysis of essay and multiple-choice questions was performed showing the results through charts and tables. Responses from essay questions were categorized and for each of them it was calculated the distribution of frequencies in the administered questionnaires (Thomas et al, 2012). Identify a number of content categories has allowed us to better recognize the variables that are at the basis of the purpose of this investigation.

## **The Study Population**

The study subjects were elite athletes of the National Italian Paracanoe team. The group was composed by 9 athletes with motor disabilities (Table 1), including 7 males and 2 females, coming from the North, South and Central Italy. Subject's age was between 20 and 46 years, with an average age of 32.1 years (SD  $\pm$ 10.6). Eight of the nine subjects interviewed have competed at international level, participating in several World and European championships. The sport experience was between 1 and 20 years, with an average of 5 years of sports experience. The daily training duration ranged from 1.5 to 6 hours, with an average of 3.5

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<sup>1</sup> We most especially want to thank Francesco Sirimarco, Italian National Paracanoe Coach, which helped to provide questionnaires and interviews.



hours. Three of the nine athletes interviewed are already qualified for the Paralympic Games of Rio 2016. The quality and reliability of the reference sample, more than the number of the subjects, is derived precisely from the high profile of the athletes interviewed.

**Table 1.** Kind of disability

|                           |         |      |
|---------------------------|---------|------|
| <b>Spinal-cord injury</b> | 4 cases | 45%  |
| <b>Amputation</b>         | 2 cases | 22%  |
| <b>Poliomyelitis</b>      | 1 case  | 11%  |
| <b>Osteogenesis</b>       | 1 case  | 11%  |
| <b>Spina bifida</b>       | 1 case  | 11%  |
| <b>Total</b>              | 9 cases | 100% |

### Data Analysis

From data collected, the 78% of the interviewed athletes has an acquired disability, while 22% has a congenital disability. Athletes with acquired disability may encounter more difficulty to overcome obstacles that result from the trauma, while in the case of athletes with congenital disabilities the same processes could be easier, because such obstacles and deficits are known since birth. This may be important when relating to the athlete or when certain exercises are proposed to the athletes. With regard to the causes of disability, the data collected show that for 45% of the interviewed athletes, it comes from traumas, for 33% it was due to infections and for the last 22% it is congenital. Data collected show also that athletes, excluding the 2 cases with congenital disabilities, have been living in a condition of disability for a period between 3 and 37 years, with an average of 15 years (SD  $\pm 12,2$ ). Data also reveal that 78% of interviewed athletes uses aids, while 22% does not require aids for walking.

Data collected by interviews show that 4 of the 9 athletes (45%) are dedicating full-time to canoeing, in a professional manner. This is also in line with the number of hours of daily practice. In fact, those who devote themselves full time to the practice of canoe train on average 2 more hours daily respect to the others. Collected data show that athletes train between 1.5 and 6 hours per day, with an average of 3.5 hours (SD  $\pm 1,5$ ). The years of sports practice of the respondents was found to be between 1 and 20 years, with an average of 5.8 years (SD  $\pm 6.0$ ). The 90% of the interviewed athletes has participated in international events as European and world championships, also obtaining excellent results. 3 of the 9 athletes (A2, A5, A9) are already qualified for the 2016 Paralympics in Rio de Janeiro, demonstrating the excellent work done by coaches and technicians. Five of the interviewed athletes (A1, A3, A5, A6, A9) have stated that they practiced sport prior to the onset of disability. Practiced sports were: football, basketball, swimming, motocross, gymnastics and dance, all practiced at amateur level. With regard to how athletes got into canoeing, 46% stated that it happened thanks to the friends and acquaintances, 27% began thanks to the proximity to a sports club, 18% started through a rehabilitation center and 9% had occasionally canoed before becoming



disabled. This data point may be significant for who wants to undertake actions to raise awareness and set up programs aimed at the promotion of paracanoe in rehabilitation centers, school, sport centers and other structures. For a person with disability, the difficulties to undertake a sport activity has decreased over time, and more and more frequently are precisely the doctors or physiotherapists who take care of the athletes after the trauma to recommend and encourage them to practice sport (Broglia, 2012). However, from the results of this study paracanoe is still not one of the activities on the top list of recommended sports for people with disability. It is already well known that the practicing sport has a positive impact on both the psychophysical state and the quality of life of those who practice it (Nocera, 2000). In this regard, the totality of the athletes interviewed (100%) stated that practicing the paracanoe found positive effects on their psychophysical well-being and it had very beneficial effects on their general life condition. More specifically, 28% of interviewed athletes stated that they get substantial improvements in motor functions, in particular of the trunk musculature (11%), the 22% stated to perceive a state of general well-being, while 17% perceives this well-being at emotional level. These results indicate that sport, and in this case canoeing, has a considerable influence on the psychophysical health condition. With regard to the link between canoeing and quality of life, all athletes (100%) have confirmed that canoeing has influenced and continues to positively influence their quality of life, of everyday activities and relations with the outside environment. 44% of respondents stated that the canoe "allows you to feel more normal" (A9), improving the image of themselves and making it more pleasant. Another athlete (A6) stated that "it does not seem you need a wheelchair when practice canoe". From these data and statements it emerges that canoeing has a significant positive effect on the representation that the person with disability has of his/her own image, consequently improving the perception of their own body, their mood, the interpersonal relations and also their self-esteem. Canoeing, under the purely technical profile, hides almost all the considerable differences that exist between disabled and able-body athletes. If you consider in fact the attitude and the posture of the athlete inside the canoe, it can be understood how the athletes can easily "camouflage" their deficits and obtain a representation of themselves very close to "normal". Although such condition is somehow consolatory and objectively not stable, confined only to the time on the canoe, it is precisely this aspect that provides canoeing a strong inclusive connotation for the person/athlete. This explains how the processes of inclusion and integration can be strongly enhanced in canoeing. The remaining 56% of athletes has stated that canoeing helps them in the process of socialization. Two important variables emerged from the answers of multiple athletes (A2, A3, A4, A8): among 56% of the athletes who declared the importance of canoeing in the processes of socialization, 67% reported canoeing as a means of comparison, from a sport point of view as well as human, enabling them to make new life experiences, discover their limits and their ability to compete on equal terms with other people, ultimately increasing the levels of self-esteem and autonomy; the other 33%, instead, stressed the influence of canoeing in group dynamics, highlighting the importance of being part of a group, improving the way they project themselves in the society and interact with other people, eliminating also the distinctions between disabled athletes and able-bodied athletes. These data reinforce the idea that canoeing, but more generally any form of physical activity or sport, is an excellent tool for inclusion, capable of helping Sports Science and Special Pedagogy in designing new perspectives and scenarios for inclusion (Moliterni, 2013), and potentially formulate the hypothesis that in future disabled athletes and able-body athletes can compete together.



## Conclusion

The survey conducted show up how sport, in this case the paracanoe, could help to make people with disabilities feel normal. It is important to clarify that is not the sport that help disability people to be normal. If we understand disability as a state of health (UN, 2006), disability is not any more linked to no-normal person. Sport, in this case, act as an instrument able to show the capacities and abilities of each one, as the *educere* latin term meaning, and when this happens disability state disappears.

We retain important, to get an inclusive society, to propose more and more activities where disability people could take part. In this way, as demonstrate the survey, the proximity to the sport place will help to increase the number of disability people who practice a sport. In this way, we think that as the 56% of the athletes said, sport activities should be practiced in an inclusive context, where people with and without disabilities could practice together. In fact, as athletes reported in the research, they usually practice different sports, not only one. Higher sport activities options, in an inclusive context, will help to increase the self-esteem and autonomy levels (Magnanini, Espinosa, 2015), as reported in the survey.

Finally, this research is important to show how inclusive sport activities are possible. We intend there are sports that need some “reasonable accommodation” changes in order to make it easily accessible to all. Canoe sport is an example. In this way, some para-canoe activities could be integrated in the canoe organizations.

*Note: Both authors developed the text jointly, specifically: paragraphs 1, 4 & 5 are written by Angela Magnanini; 2, 3 & 5 by Pau Espinosa Trull.*

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