

EMBODIED EDUCATION: PROMOTING SCHOOL WELL-BEING THROUGH SPORTS ACTIVITIES

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Abstract: Any environmental context that includes socio-relational interactions has inherent in itself the challenge of creating a state of well-being for all the individuals that compose it. This concept takes on even more importance when referring to formal formative contexts that welcome very young students such as that of the Primary School, where educational growth cannot be separated from the presence of school well-being. The purpose of this contribution is to illustrate the concept of school well-being and then analyze whether an experimental approach, which enriches the training offer with a sports laboratory, can be an effective pedagogical strategy capable of improving the level of well-being of students. In this regard, at the primary school level, a didactic laboratory activity on minibasketball was provided and, through the QBS-B questionnaire, the change in the level of school well-being perceived by students from the “pre” Laboratory to the “Post” period was assessed, also in relation to a control group that has not adopted this experimental variant, continuing with the traditional training offer.

Keywords: school wellbeing; minibasketball; primary school; sport pedagogy



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1. Introduction

The formal educational institution, especially the one dedicated to primary education, is one of the most important environments for the growth of the individual, both from the point of view of the acquisition of didactic notions at the basis of future school learning, but above all from a pedagogical point of view that also considers all the implications of a formative development such as to directly affect everyone's life. In this regard, the care of the conditions and dynamics that characterise this socio-relational environment appears to be of considerable interest, so that they are as suitable as possible to ensure that each pupil is potentially able to proceed effectively in his or her growth path. Well-being is a complex construct that has been the subject of numerous theorisations and has been examined in the psychological, philosophical, medical, political and other fields (Allison, Locker & Feine, 1997; Crocetti, 2014; Diener & Larsen, 1993; Mariani, 2001; Maslow, 1970; Petrillo, 2008; Ryan & Deci, 2001; Varni, Seid & Rode, 1999). While in the past the concept of well-being, also called 'quality of life' was identified in the absence of malaise, more recently the focus has been on the positive aspects of an individual's functioning with respect to the physical mental and social domains, taking into account physical and psychological health, the quality of family and non-family relationships, adaptive skills self-esteem, sense of self-efficacy and emotional experience in different life situations, such as family, work and such as family, work and especially school life (Crocetti, 2014; Petrillo, 2008; Steca, Ryff, D'Alessandro & Delle Fratte, 2002). Moreover, this construct can include two different perspectives: the subjective one of an individual, which includes the perception one has regarding one's social relationships, activities and goals and the level of satisfaction with one's life, both in a global sense and considering individual domains, and the objective one, regarding the living conditions, the quality of the environment or the socio-cultural and economic conditions in which one lives. Considering individuals of developmental age, the school environment constitutes the place in which the child or young person experiences many relational, emotional and relational, emotional and cognitive levels; experiences on the basis of which they construct ideas about themselves (self-esteem, self-efficacy), ideas about others and the relationship they can have with them. School is therefore one of the most important environments for children and there is a need to assess aspects of well-being related to this context (Crocetti, 2014; Mariani, 2001; Petrillo, 2008). In order to carry out an assessment of a child's wellbeing at school, it is important to consider what influences his or her experience at school, taking into account the psycho-pedagogical literature and the educational practice carried out by professionals working in schools, particularly teachers, school psychologists and pedagogues.

From studies on the link between motivation and success, we know that the child who has an experience of success at school will develop positive beliefs about their own competence (sense of self-efficacy) and will be more motivated to repeat the behaviour that led him/her to a good school result, encouraging the repetition of successful experiences. In this way, a virtuous circle is created which, together with academic success, guarantees the child the feelings of wellbeing linked to a good sense of self-efficacy, inherent in judgements of their own abilities, and self-esteem (Tobia & Marzocchi, 2015). Let us consider an opposite situation: an experience of school failure is often accompanied by de-motivation, which implies distancing and disinvestment from a situation that children consider to be at risk of failure. The idea that children and young people's idea of their own success at school, and how much this is

recognised or not by parents and teachers, is another of the main elements to which attention must be paid to for effective assessment. Closely linked to it is perceived self-efficacy, in particular with respect to one's own cognitive and learning competences. Sense of self-efficacy, belief in self-efficacy, or perceived self-efficacy, corresponds to beliefs about one's abilities to organise and execute the sequences of actions necessary to produce certain results (Bandura et al., 2007; Caprara, 2001). The aim of this work is to evaluate the capacity of an experimental didactic-educational proposal, centred on a sports workshop in the minibasketball discipline, to have an impact on scholastic well-being and to represent, in this case, an important educational resource for the entire school system.

2. Materials and Methods

This experimental didactic-pedagogical project was implemented in a class in a primary school context in order to assess the ability to increase the level of scholastic well-being perceived by the pupils through the practice of sport in a workshop activity centred on minibasketball.

- Methodological Structure

It is essential to state at the outset that the experimentation was based on the collaboration and expertise of the head of motor and sports education of the 'sample' class involved in the project and a federal mini-basketball coach at a sports facility affiliated with the school. The empirical research methodology was based on an approach involving the presence and evaluative analysis of a Sample Group and a Control Group that did not follow the experimental didactic-sports proposal, but continued with the traditional teaching approach. The sample group consists of third-year primary school students: 14 Males (M) - 6 Females (F) - average age 8.1 years. As for the control group, a class with the same number of male and female students and an average age close to that of the sample group (8.3) was chosen in order to ensure as much homogeneity as possible between the two groups under research. A division into 2 periods was carried out: T0 (start of activity) - T1 (end of activity) Duration: 4 Months - 2 Weekly Meetings of 1 hour each - Total of 32 Meetings (32 hours). Maximum limit of hours of absences for the student to be considered as a valid element in the experimentation: 4 hours. The first month of activity was entirely dedicated to acclimatisation in order to allow each individual pupil to carry out the proposed activity. The activity was geared both to learning the fundamentals and to the recreational aspect of minibasketball with a propensity towards exercises involving collaboration processes between peers through the use of the ball and baskets. In all meetings, starting in the second month, the last 15 minutes were devoted to friendly matches with mixed teams and without noting the score in order to favour constructive fun in a socio-pedagogical key over competitive play.

- Evaluation Instrument

The instrument used for the Evaluation was the Questionnaire for the Evaluation of School Wellbeing for Children (QBS-B) (Mazzocchi, Tobia, 2015). The questionnaire consists of 27 items and allows the calculation of a total School Well-being score, derived from the sub-scores for the following subscales:

1. Satisfaction and Recognition: 4 items investigating the pupil's satisfaction with his or her school results and the perception that his or her commitment and abilities are recognised by parents and teachers;

2. Relationship with teachers: 5 items investigating the level of trust in teachers and the pupil's perception of their emotional availability, support and recognition;
3. Relationship with classmates: 5 items assessing the pupil's experience of acceptance by the class group, the level of trust towards his classmates and the presence of significant friendship relationships;
4. Emotional attitude at school: 4 items assessing the children's/young people's emotional reactions in dealing with school demands, delving into experiences of anxiety, shame and guilt;
5. Sense of self-efficacy: 6 items that assess the pupil's perception of self-efficacy, taking into account his or her view of certain qualities linked to the cognitive and learning spheres.

There are also 3 items that are not used for the purpose of calculating the School Well-being score, but can be helpful for a qualitative assessment of the child's or young person's causal attribution mechanisms. Each item of the QBS requires a response on a 3-point Likert scale with the following labels: not true, quite true, very true.

The children have to choose directly between the three labels and the score then given by the examiner for each item is, respectively, 0, 1 or 2 points, with some exceptions for negatively worded items, which will have reverse attribution. The 5 subscales of the QBS-B and the QBS-R consist of a different number of items; in order to enable comparison between the different subscales, the average score obtained at each subscale must therefore be calculated. Almost all the items are formulated positively, so that the answer "not true" corresponds to a score of 0, the answer "quite true" corresponds to a score of 1 and the answer "very true" corresponds to a score of 2. The exceptions are items 9, 12 and 22 of the subscale Emotional Attitude at School, for which it is necessary to invert the score, so that the answer "not true" corresponds to a score of 2, the answer "quite true" corresponds to a score of 1 and the answer "very true" corresponds to a score of 0. From the sum of the average scores of the 5 subscales, the total score of the child's educational well-being is obtained. Higher scores correspond to a higher perceived well-being of the students.

Table 1. Subscale Satisfaction and recognition.

N.	Item	Not true	Quit true	Very true
1	Am I satisfied with the results I get?	0	1	2
19	My parents are happy with the way I go to school	0	1	2
23	My parents believe that in my study I try my best	0	1	2
25	My teachers are happy with the way I go to school	0	1	2
Total scale score _____		Average scale (score tot/4) _____		

Table 2. Subscale Relationship with teachers

N.	Item	Not true	Quit true	Very true
11	I feel comfortable with my teachers	0	1	2
15	My teachers know how to persuade me to try my hardest	0	1	2
18	I trust my teachers	0	1	2
20	My teachers help me if I don't understand something	0	1	2
24	I can talk to my teachers about my pre-occupations and difficulties	0	1	2
Total scale score _____		Average scale _____		
		(score tot/5) _____		

Table 3. Subscale Relationship with classmates

N.	Item	Not true	Quit true	Very true
4	My classmates like to work with me	0	1	2
10	In class I have many friends	0	1	2
17	I feel accepted in the classroom	0	1	2
21	With my companions I have fun	0	1	2
27	My comrades I can trust	0	1	2
Total scale score _____		Average scale (score tot/5) _____		

Table 4. Subscale Emotional attitude at school

N.	Item	Not true	Quit true	Very true
6	I am quiet before a test or questioning	0	1	2
9	I'm agitated when I know I haven't done a task well	2	1	0
12	I feel guilty when I can't do a task well	2	1	0
22	I am ashamed to speak in front of the whole class.	2	1	0
Total scale score _____		Average scale (score tot/4) _____		

Table 5. Subscale Sense of self-efficacy

N.	Item	Not true	Quit true	Very true
2	I am able to think quickly	0	1	2
5	I think I am a/an alert child	0	1	2
7	When faced with obstacles, I don't back down	0	1	2
14	I have a lot of imagination	0	1	2
16	I usually have some good ideas	0	1	2
26	I learn new things with ease	0	1	2
Total scale score _____		Average scale (score tot//6) _		

Table 6. Derivation of Total Child School Wellbeing Score

Subscale	Average Score
1. Satisfaction and recognition	+
2. Relationship with teachers	+
3. Relationship with classmates	+
4. Emotional attitude at school	+
5. Sense of self-efficacy	+
Total school welfare score	=

3. Results and Didactic-Pedagogical Considerations

For both groups, the assessments based on the QBS-B questionnaire at both time 0 and time 1 and the results for each individual student are shown in the table below; the students were randomly numbered from 1 to 20 and the data were approximated to the second decimal place.

Table 7. Assessment at Time 0 - Sample Group

Subscale	Average score for child																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1.	1,00	0,50	0,50	1,25	1,25	1,25	1,00	1,25	1,50	1,00	1,25	0,50	1,50	0,50	1,25	1,50	1,25	1,00	1,25	1,50
2.	0,60	0,40	0,40	1,60	1,60	1,60	0,60	1,60	0,60	0,60	1,60	0,80	0,80	0,40	1,40	0,60	1,60	0,60	1,60	0,60
3.	0,40	0,80	0,80	1,00	1,00	1,00	0,40	1,00	0,80	0,40	1,40	0,40	0,60	0,80	1,60	0,80	1,40	0,40	1,40	0,80
4.	1,00	0,50	0,50	1,00	1,00	1,00	1,00	1,00	0,75	1,00	0,75	0,50	0,75	0,50	0,75	0,75	0,75	1,00	0,75	0,75
5.	0,50	1,17	1,17	1,17	0,50	1,17	0,50	0,50	1,50	0,50	1,33	1,17	1,50	1,17	1,33	1,50	1,33	0,50	1,33	1,50

Total scholastic score	3,50	3,37	3,37	6,02	5,35	6,02	3,50	5,35	5,15	3,50	6,33	3,37	5,15	3,37	6,33	5,15	6,33	3,50	6,33	5,15
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Table 8. Assessment at Time 1 - Sample Group

Subscale	Average score for child																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1.	1,25	1,25	1,25	1,50	1,50	1,50	1,25	1,50	1,75	1,25	1,75	1,25	1,75	1,25	1,75	1,75	1,75	1,25	1,75	1,75
2.	1,20	1,00	1,20	1,80	1,80	1,80	1,20	1,80	0,60	1,20	1,80	1,20	0,60	1,00	1,80	0,60	1,80	1,20	1,80	0,60
3.	1,00	1,20	1,00	1,40	1,40	1,40	1,00	1,40	1,60	1,00	1,60	1,00	1,60	1,20	1,60	1,60	1,60	1,00	1,60	1,60
4.	1,25	1,25	1,25	1,75	1,75	1,75	1,25	1,75	1,75	1,25	1,75	1,25	1,75	1,25	1,75	1,75	1,75	1,25	1,75	1,75
5.	1,50	1,50	1,50	1,50	1,50	1,17	1,50	1,17	1,67	1,17	1,67	1,67	1,67	1,50	1,67	1,67	1,67	1,17	1,67	1,67
Total School Well-Being Score for Child	6,20	5,20	5,20	7,95	7,95	7,62	6,20	7,62	7,37	5,87	8,57	5,37	7,37	5,20	8,57	7,37	8,57	5,87	8,57	7,37
Delta between T1 and T0 of School Well-Being for Child	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	2,70	1,83	1,83	1,93	2,60	1,60	2,70	2,27	2,22	2,37	2,24	2,00	2,22	1,83	2,24	2,22	2,22	2,37	2,22	2,22

Table 9. Evaluation at Time 0 - Control Group

Subscale	Average score for child																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1.	1,25	1,25	1,00	1,50	0,50	1,50	1,00	1,00	0,50	1,50	1,25	1,25	1,50	0,50	1,25	1,25	0,50	1,25	0,50	1,25
2.	1,60	1,60	0,60	0,60	0,40	0,60	0,60	0,60	0,80	0,80	1,60	1,60	0,80	0,40	1,40	1,60	0,80	1,60	0,40	1,40
3.	1,00	1,00	0,40	0,80	0,80	0,80	0,40	0,40	0,40	0,60	1,40	1,40	0,60	0,80	1,60	1,40	0,40	1,40	0,80	1,60
4.	1,00	1,00	1,00	0,75	0,50	0,75	1,00	1,00	0,50	0,75	0,75	0,75	0,75	0,50	0,75	0,75	0,50	0,75	0,50	0,75
5.	1,17	0,50	0,50	1,50	1,17	1,50	0,50	0,50	1,17	1,50	1,33	1,33	1,50	1,17	1,33	1,33	1,17	1,33	1,17	1,33
Total School Well-Being Score for Child	6,02	5,35	3,50	5,15	3,37	5,15	3,50	3,50	3,37	5,15	6,33	6,33	5,15	3,37	6,33	6,33	3,37	6,33	3,37	6,33

Table 10. Evaluation at Time 1 - Control Group.

Subscale	Average score for child																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1.	1,25	1,25	1,25	1,50	0,50	1,50	1,00	1,00	0,50	1,50	1,25	1,25	1,50	0,50	1,25	1,25	0,50	1,25	0,50	1,50
2.	1,60	1,60	0,60	0,60	0,40	0,60	0,60	0,60	0,80	0,80	1,60	1,60	0,80	0,40	1,40	1,60	0,80	1,60	0,40	1,40
3.	1,00	1,00	0,40	0,80	0,80	0,80	0,40	0,40	0,80	0,60	1,00	1,40	0,60	0,80	1,60	1,40	1,00	1,40	0,80	1,60
4.	1,00	1,00	1,00	0,75	0,50	0,75	1,00	1,25	0,50	0,75	0,75	0,75	0,75	1,00	0,75	0,75	1,00	0,75	0,50	1,25
5.	1,17	1,00	0,50	1,50	1,17	1,17	0,50	0,50	1,17	1,50	1,33	1,33	1,50	1,17	1,33	1,33	1,17	1,33	1,00	1,17
Total scho- lastic score	6,02	5,85	3,75	5,15	3,37	4,82	3,50	3,75	3,77	5,15	5,93	6,33	5,15	3,87	6,33	6,33	4,47	6,33	3,20	6,92
Delta between T1 and T0 of School Well-Being for Child	0	+	+	0	0	-	0	+	+	0	-	0	0	+	0	0	+	0	-	+
	0	0,50	0,25	0	0	0,33	0	0,25	0,40	0	0,40	0	0	0,50	0	0	1,10	0	0,17	0,59

First of all, it should be noted that no student exceeded the limit of absence hours, so the drop out of the experimental phase is 0. There was a general improvement in the state of well-being in the various subscales and in almost all of the students, testifying to the extent to which the sporting activity is capable of influencing key factors of the individual, even at primary school age, which affect the individual's well-being. In particular are appreciable the results obtained in the socio-relational factors both with regard to one's 'peers' and with regard to teachers. This is attributable to the ability of team sport to positively stimulate 'team working' and the desire to pursue a common goal through individual commitment, on the one hand, and respect for the authority figure of the coach as a leader, on the other. (Castellnuovo, Zottola, & Lovecchio, 2019; Di Palma, 2021; Di Palma, Ascione, & Peluso Cassese, 2018; Peluso Cassese et al., 2018). Still, progress should be considered in subscales 1, 4 and 5 where sport activity was able to act positively in building self-esteem and self-efficacy in children (Ascione, Di Palma, & Rosa, 2019; Sibilio, 2005). What was analysed becomes even more relevant when compared with the evaluation carried out on the control group, where a significantly high positive variation was not found and there were even some cases of negative variation in the perception of well-being at school once the 4 months had elapsed with a traditional formative approach. there were even some cases of negative variation in the perception of well-being at school once the 4 months had elapsed with a traditional formative approach. Calculating the average variation between each child's perceived well-being scores measured at the end of the experimental period and those measured at time 0, the following results emerge:

- Mean Change in School Well-being Sample Group = 2.1915
- Mean Change in School Well-being Control Group = 0.2045

It is evident from this analysis that it was the experimental educational offer focused on the inclusion of a laboratory-based proposal for physical education that generated a significant increase in the perceived level of school well-being by the entire class group. The pedagogical role of sports has therefore been shown to be useful in creating a school environment conducive to positive relationships among students and between students and teachers, capable of enhancing students' satisfaction and their sense of self-efficacy in their actions, and supporting an improvement in the emotional state of each individual towards both the peer group and their teaching responsibilities.

5. Conclusions

School well-being in a period of particular attention to socio-pedagogical aspects within the school system is becoming increasingly important. The same educational flow is strongly influenced by it because, like any other social context, a group that operates in an environment with a high level of well-being has a higher chance of effectively and quickly achieving its goals; therefore, in the school system, it promotes educational learning. In this scenario, we wanted to highlight the concrete effectiveness of a sports workshop in improving the state of well-being in the formal educational context of primary school. The results were appreciable in all key determinants of school well-being in all children in the analyzed sample without a significant distinction based on gender. This highlights the role of physical education teachers in primary school, who are equal both in economic status and legal status to teachers of the same level of education and cannot be engaged in other subjects in primary school. The presence of educational experiences focused on physical education and sports, especially in primary school, allows for the possibility of structuring a more effective educational system that leads students to a more favorable learning condition and stimulates active participation in the construction of knowledge and socio-emotional development of the class group. Obviously, a limitation of this work is certainly the size and lack of heterogeneity of the evaluated sample. Future research could focus on increasing the size of the sample and differentiating it both by level of education and type and direction of the school context; it could also analyze the impact on educational learning following the improvement of school well-being in order to characterize the experimental pedagogical proposal presented in a purely educational perspective.

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