

Sports tutors' perceptions of primary school physical education: A contextual analysis

Tiziana D'Isanto¹, Francesca D'Elia¹, Sara Aliberti^{2*}, Gaetano Raiola³

¹ Department of Human, Philosophical and Education Sciences, University of Salerno, Fisciano, Italy.

² University of Salerno, Fisciano, Italy.

³ Department of Political and Social Studies, University of Salerno, Fisciano, Italy.

* Correspondence: Sara Aliberti; s.aliberti17@gmail.com

ABSTRACT

The 2022 Italian budget law introduced two weekly physical education (PE) hours in IV and V primary classes with a specialist teacher. Ahead of this, the "Active Kids in School" (ASK) project, led by a sports tutor alongside the generalist teacher, ran in IV and V classes in 2021/2022. The aim of this study was to analyze the current contextual situation related to the teaching of PE in primary school, through the perceptions of the ASK project's sports tutors, potential PE teachers with master's degree in exercise and sport sciences. A descriptive correlational study design was implemented. An ad hoc questionnaire, focused on participants' characteristics, tutors' perceptions on their teaching, perceived competence and work satisfaction, and obstacles to PE, was administered to 48 sports tutors (26±2.4 years), recruited through convenience sampling. The results showed a critical situation related to PE teaching in primary school, mainly due to the training gaps of tutors in sports, inclusive strategies and classroom group management, and the lack of gyms and sports equipment. Significant correlations emerged between tutors' age and PE training adequacy ($p=.007$; $r=.38$), tutors' age and perception of work satisfaction ($p=.001$; $r=.44$), PE training adequacy and work satisfaction ($p=.000$; $r=.85$). This evidence should be considered by authorities managing the system-wide adoption of legislative innovation, particularly teacher-training universities.

KEYWORDS

Physical Fitness; Training University; Perceived Competence; Work Satisfaction; Specialist Teacher

1. INTRODUCTION

With the Italian budget law (G.U., 2022), physical education (PE) has finally become a curricular teaching such as in secondary school. Several studies emphasized the importance of the presence of the specialized PE teacher in primary school to achieve goals in terms of health and well-being, acquisition of movement skills, social skills, and knowing how to use movement for cross-curricular learning (Invernizzi et al., 2021; 2022). Proper PE teaching would enable children to spend time in school more actively and become aware of the importance of a healthy and active lifestyle (Altavilla et al., 2022b; Di Domenico et al., 2022).

There is a need to promote movement among children, given their low levels of physical activity and given the consequences of the COVID-19 pandemic (Aliberti & Raiola, 2021; Raiola et al., 2020). Children and young people hardly participate in sports and physical activity anymore. The World Health Organization (WHO, 2020) recommends that school-age children achieve, on average, at least 60 minutes per day of moderate/vigorous intensity physical activity per week and reduction of time spent sitting, including at school, through some strategies such as active breaks.

Unfortunately, globally, most school-age children do not meet WHO recommendations (Guthold et al., 2020) and spend most of their time sitting. Coordinative and conditional movement skills are poor: about two out of three children cannot perform a flip (Dugnani, 2017), jump rope, climb, etc. These levels are worrying because physical inactivity is a major risk factor for non-communicable diseases globally. Now more than ever, it is a priority public health challenge. Being that from childhood age, healthy behaviours and lifestyles can be formed and consolidated, which improve health and well-being in adult and older life (D'Souza et al., 2020), it is necessary to implement specific projects in schools aimed at counteracting physical inactivity and encouraging the adoption of healthy and active lifestyles.

Several projects have been implemented in primary school to enhance PE. In Italy, tutoring in primary school had a considerable boost with the "Physical literacy" in 2009/2010 aimed to all Italian primary school classes because PE teaching was almost absent. It transformed into the "Sports Class" project, also addressed to all classes, whose final evolution is the national "Active Kids in School" (ASK) project, implemented in 2021/2022 by Ministry of Education and the government agency Sport & Salute. ASK involved the figure of sports tutor, a graduate in exercise and sports science, to work alongside the generalist teacher, with the aim of training generalist teachers in primary schools and promoting healthy and active lifestyles. The project consisted of one hour of PE, conducted by sports

tutor and the generalist teacher, while a second hour only by the generalist teacher, based on the directions and suggestions of the sports tutor. The goal was to accompany the student on the educational path toward the goals of skill development and learning objectives, organized into four thematic cores: the body and its relationship with space and time; body language as a communicative-expressive mode; play, sport, rules, and fair play; health, wellness, prevention, and safety, as outlined in the National Indications (NI) for the curriculum (MIUR, 2012). The project was also a kind of preventive accompanying measure for the imminent implementation of the mandatory two hours per week of PE by specialist teachers with a master's degree in exercise and sports science.

For the first time, the curricular teaching of PE in primary school, performed by a PE specialist teacher, was introduced (G.U., 2022) in V (starting from the year 2022/2023) and IV classes (from 2023/2024). The PE teacher must have passed a qualifying competitive examination that can be accessed with 24 European Credit Transfer System (ECTS) in psychopedagogy and disciplinary method education and one of the three master's degrees in sports science and exercise: Organization and Management of Services for Sport and Physical Activities (LM47), Science and Techniques of Preventive and Adapted Physical Activities (LM67) and Sports Science and Techniques (LM68). Before the enactment of the previous law, PE was taught by generalist teachers, with the support of practical and methodological-didactic contribution of sports tutor, mainly because they did not perceive themselves to be adequate in teaching this discipline (D'Elia & D'Isanto, 2021; D'Elia, 2019ab; D'Elia, 2020).

It is quite common to use tutoring strategies, where the teacher assumes the role of tutee (in training) while the PE teacher plays the role of tutor, as its expertise (D'Isanto et al., 2022a; Raiola, 2020). There were different points of view on which figure is best suited to perform quality PE. Vicini (2015) argued that the choice to use a sports tutor contradicted NI (MIUR, 2012) which aimed at the integral formation of the person, the competence of the generalist teacher. These sports projects limited the educational goals of PE because they focused only on sports. To achieve the integral education of the person, sport was a necessary element, but not the only one in PE activities. In fact, it was only the third point of NI (MIUR, 2012): "play, sport, rules and fair play". For this reason, the PE teacher specialist, with an adequate training on sports, physical activities, inclusion strategies (Aliberti et al., 2022), life/soft skills promotion (MIUR, 2018), teaching methods (Altavilla et al., 2022a; D'Isanto et al., 2022b) and so on, is the most appropriate teaching figure.

As the current contextual situation about PE in primary schools is unexplored, knowing the perceptions of the sports tutors working in the ASK project, which will precede the implementation of

the law, could be useful in preparing potential PE specialist teachers for issues they may face in future. Variables that could cause difficulties to implement quality PE could be structural and organizational barriers, such as lack of gyms, equipment, suitable spaces, collaboration with other figures in the school, or training gaps. Finally, an interesting aspect to address was also work satisfaction, as several studies demonstrated that teachers' work satisfaction improved student and teacher well-being, teaching quality and support, as well as reducing burnout (Kengatharan, 2020; Toropova et al., 2021). However, work satisfaction could be affected by possible educational and training gaps, undermining the quality of teaching.

Based on this background, the aim of this study is to analyze the current contextual situation related to the teaching of PE in primary school through the perceptions of the ASK project's sports tutors, potential PE teachers. The utility is to identify the problems currently present in teaching PE in primary school to provide guidance to the future specialist teacher, who will join the teaching staff very soon.

2. METHODS

2.1. Design and Participants

A descriptive correlational study design was implemented. A total of 48 sports tutors (26 ± 2.4 years old) from the province of Salerno, in southern Italy, who participated in the ASK project in the year 2021/2022, were recruited by convenience sampling. A group of sports tutors who decided to take part in the study were responsible for disseminating the questionnaire to as many colleagues as possible. Informed consent was obtained from participants, and data were processed anonymously.

2.2. Procedure

An ad hoc questionnaire, with the aim of investigating tutors' perceptions of their work in the school and the current contextual conditions related to PE teaching in primary school, was prepared with Google Form and sent to tutors by e-mail. It consisted of 18 semi-structured questions, in addition to demographic data such as age and origin, divided into 5 subsections. A detailed description is shown in Table 1.

Table 1. Questionnaire on current contextual conditions related to PE teaching in primary school

Topics	Questions (Q)
Participants' characteristics	Q1. What educational qualification did you enter to participate in the ASK project announcement? Q2. In addition to the previous one, what title did you enter? Q3. Are you an instructor in any discipline?
Tutors' perceptions of their work at school	Q4. Do you feel adequately prepared to conduct PE classes? Q5. Do you feel satisfied with your work within the school? Q6. What shortcomings do you perceive in your training as a sports tutor?
Tutors' perceptions of the generalist teachers	Q7. Do you consider the generalist tutors (who work alongside you) to be helpful? Q8. Do you feel that the preparation of generalist teachers is adequate to teach PE? Q9. Do you consider the simultaneous presence of the Tutor and the referring teacher to be helpful...
Obstacles to conduct of PE lessons	Q10. Do children conduct the second hour of PE with the generalist teacher? Q11. If PE lessons are skipped, what is the main reason? Q12. Do children show enthusiasm in carrying out PE lessons? Q13. Does the school have a gymnasium? Q14. If the gym is not available, where do you conduct PE classes? Q15. Is the equipment for making paths/circuits available?
Teaching methods and assessment	Q16. Do you know the NI (2012) guidelines for teaching PE in primary school? Q17. What teaching method do you use during PE lessons? Q18. Do you use assessment tools to monitor children?

2.3. Statistical Analysis

Descriptive statistics were used to summarize the data in mean \pm standard deviation, frequencies (N) and percentage (%). Since the data were treated in an intervallic manner, Spearman's correlation analysis was performed to measure the associations between variables. The magnitude of correlation was classified as strong ($1 < r < .5$), moderate ($.5 < r < .3$) and weak (from $.3 < r < .1$). $P < .05$ was considered statistically significant. The data were analyzed using SPSS.

3. RESULTS

Most tutors perceived gaps related to lack of knowledge of assigned sports (27.1%), inclusive strategies (14.6%), and class management (33%). A total of 66.7% gave a neutral opinion regarding their perceived adequacy to conduct PE lessons, as well as on work satisfaction (62.5%). 60.4% of tutors found the co-presence with the generalist teacher quite useful, mainly for training them, because of the inadequacy of their training to teach PE, and managing the class group. 50% of children did not

always perform the second hour of PE per week, as the generalist teacher preferred to perform his subject (84.2%). 100% of children were enthusiastic about participating in PE classes; however, many schools (39.6%) did not have a gym, or it was not available (12.5%); therefore, classes were conducted in classrooms (39.6%), atriums (29.2%) or garden (18.8%); in addition, sports equipment was available in scarce quantities (70.8%). A detailed description is shown in Table 2.

Table 2. Tutors' perceptions, teaching challenges, and school PE conditions

Questions		N	%
Q1	Bachelor's degree in exercise and sports science from the current system (L22)	42	87.5
	Bachelor's degree in exercise and sports science from the previous system (CL33)	3	6.3
	Master's degree in primary education with a single cycle	3	6.3
Q2	LM68	37	77.1
	No one	8	16.7
	LM47	3	6.3
Q3	Yes	25	52.1
	No	23	47.9
Q4	4	15	31.3
	3	32	66.7
	2	1	2.1
Q5	4	18	37.5
	3	30	62.5
Q6	Class management	16	33.3
	Lack of knowledge of sports assigned	13	27.1
	Lack of knowledge of inclusive strategies	7	14.6
	No one	4	8.3
	Lack of knowledge in programming increasing skills	4	8.3
	Adaptability in absence of equipment	3	6.3
	Knowledge about teaching methods	1	2.1
Q7	4	19	39.6
	3	16	33.3
	2	13	27.1
Q8	3	3	6.3
	2	12	25.0
	1	33	68.8
Q9	Student management and teacher training in PE	29	60.4
	Student management	10	20.8
	Nothing	6	12.5
	Teacher training in PE	3	6.3
Q10	No	12	25.0
	Sometimes	24	50.0
	Yes	12	25.0
Q11	The generalist teacher does not want to lose his hours	16	84.2

	The generalist teacher does not feel able to perform PE lesson alone	8	42.1
	The generalist teacher is not interested in performing it	4	21.1
Q12	Yes	48	100.0
Q13	Yes	23	47.9
	No	19	39.6
	Yes, but not available	6	12.5
Q14	Classroom	19	39.6
	Atrium	14	29.2
	Garden	9	18.8
	Other	6	12.5
Q15	Yes, in scarce quantities	34	70.8
	Yes, in sufficient quantities	10	20.8
	No	4	8.3
Q16	No	10	20.8
	Yes	38	79.2
Q17	Heuristic learning	6	12.5
	Both	30	62.5
	Prescriptive teaching	7	14.6
	I do not know	5	10.4
Q18	No	14	29.2
	Yes, for movement competences	12	25.0
	Yes, for both social and movement competencies	19	39.6
	Yes, for social competences	3	6.3

A moderate positive correlation ($p=.007$; $r=.38$) emerged between tutors' age and Q4: as age increased, the perception of the adequacy of one's training to conduct PE classes increased. A second moderate positive correlation emerged ($p=.001$; $r=.44$) between tutors' age and Q5: as age increased, the perception of work satisfaction after ASK project increased. A third strong positive correlation emerged between Q4 and Q5 ($p=.000$; $r=.85$): as the perceived adequacy of one's training to conduct PE classes increased, the perceived work satisfaction increased.

4. DISCUSSION

The results of the present study showed several issues the sports tutors, potential PE teachers, encountered during the implementation of the ASK project to promote PE. The contextual situation regarding the current teaching of PE was unfavorable, starting from structural and organizational barriers to the training ones. Most of the students had already completed their studies by earning a master's degree, which in this case was LM68. In addition, half of the tutors had also obtained a sports certification from sports promotion centers or national sports federations. Despite their qualifications, most perceived educational deficiencies that needed to be compensated. Specifically, they perceived a

lack of knowledge about sports, inclusive strategies, and classroom group management. The lack of knowledge of sports was due to the fact that the school had to choose the federations with which to collaborate; consequently, each tutor had to follow the guidelines received from them, which could focus on a sport previously untaught. However, in the teaching of PE, the specialist teacher should not have this type of problem for the autonomy principle in choosing the programme to adopt, but in-depth studies on different sport are still necessary.

In primary school, no specific sport should be taught, but as much sports experience as possible should be gained, according to the principles of multi-sport and multilaterality (Pesce et al., 2013; Popović et al., 2020) to broaden the children's cultural background. Inclusive practices also need to be explored, despite the training provided by the International Paralympic Committee to promote inclusion, as it is becoming increasingly common to work with people with disabilities or special educational needs. The aim is to make the most of everyone's resources, adapting the environment and the play rules to achieve full inclusion. This can be achieved by working on teaching methods (Raiola, 2017) ranging from prescriptive teaching, based on imitation and repetition of the technical gesture, to heuristic learning, based on discovery, use of techniques borrowed from psychology, including brainstorming, circle time, cooperative learning, etc., alteration of the environment and game rules (D'Isanto et al., 2022b).

Heuristic learning is also able to improve the development of soft skills, including teamwork skills, as well as perception and awareness of the importance of physical practice. They are also important in solving the third problem: group management in dynamic activities, despite generalist teacher supervision. The co-presence is perceived by sports tutors useful to train generalist teacher on PE and to try to manage students. Other tutors found the presence of the generalist teacher during the weekly PE lesson not very useful, mainly due to his lack of training on the topic, leading to two divergent thoughts. There is a widespread belief that the generalist tutors do not consider PE important, trying to prioritize their own teaching, very often skipping the allocated hours to do movement. As tutors stated, the second PE hour per week assigned by the SAK Project exclusively to the generalist teacher was often not done. The main reason was that the generalist teacher did not want to miss class hours or did not feel able to do the PE lessons alone. This was exacerbated by the fact that most schools lacked gyms and sports equipment, leading tutors to teach lessons in classrooms or spaces that were sometimes inadequate for children to move around in. The safety of the environment can compromise the conduct of PE lessons due to the children's fear of injury. All this converges in the low perception

of the tutor in the adequacy of his training to conduct PE lessons and in the perceived satisfaction with his work.

Just between PE training adequacy and work satisfaction a significant strong positive correlation emerged ($r = .85$). As the perception of competence in teaching PE at school increased, perception of work satisfaction increased. Job satisfaction is an important parameter, as it is closely related low turnover, teacher and student well-being, and overall school cohesion (Toropova et al., 2021). Consequently, we need to improve teacher training to make teachers more confident in teaching their subject. Age was a moderately correlated variable with perceived competence ($r = .38$). With age, experience in teaching also increased, gaining more and more skills to deal with the different challenges faced in the school. Age was also moderately correlated with work satisfaction ($r = .44$). This result was in line with Sims (2018), who stated the existence of a weak relationship between age and job satisfaction in teaching, the relationship of which was curvilinear. Being satisfied with one's job affects mental and physical health and increases worker productivity. Not surprisingly, many strategies are used to increase teacher motivation, as it seems to be an indicator of improving the quality of the educational system.

Synthetically, combining the issues identified by this study and those of previous studies, we can summarize by stating that the barriers most encountered during school sports projects are:

- the generalist teacher's innate fears of moving children
- the generalist teacher's disinterest in performing PE
- different point of view between generalist teachers and tutors
- training gaps perceived by generalist teachers and tutors
- lack of infrastructure, sports equipment, etc..

There is a need to work on the training of generalist teacher, PE specialists and sports tutors, starting from undergraduate education. Regarding the lack of infrastructure and equipment, the National Recovery and Resilience Plan (PNRR, 2022) has allocated funds to address the lack of facilities and equipment in school buildings. What we can recommend is the return to large equipment, which is now absent and little used because it is considered limited in its use or because of the physical and psychological difficulties encountered by children, useful for awakening children's enthusiasm. This will enable them to satisfy their movement needs and awaken their interest in moving, through experiences that are natural for humans, as well as improving physical parameters.

5. CONCLUSIONS

The current contextual situation related to the teaching of PE in primary school was critical, due to sports tutors' training and structural-organizational gaps. Sports tutors, potential PE teachers, perceived lack of knowledge about sports, inclusive strategies, and classroom group management, over the inadequacy of generalist teacher to teach PE. High perceived competence in teaching PE influenced positively the work satisfaction, useful to improve teaching quality, and both were influenced by age. As for structural gaps, mainly on gym and sports equipment, the PNRR will address the upgrading of school sports infrastructure. This evidence should be considered by authorities managing the system-wide adoption of legislative innovation, particularly teacher-training universities. The role of universities is to take note of the problems found during the years of tutoring in primary school and provide an adequate training in teaching PE. The limitation of the study is the sample size and location of the survey, emphasizing the need to submit the questionnaire to other provinces and regions. However, it offers interesting reflections and ideas to be able to improve PE quality in primary school.

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