

NUMERICAL – DESCRIPTIVE – CATEGORICAL: TEACHERS’ EXPERIENCES AND OPINIONS ON PHYSICAL EDUCATION ASSESSMENT IN PRIMARY SCHOOL

VESNA ŠTEMBERGER,¹ JOCA ZURC²

¹ University of Ljubljana, Faculty of Education, Ljubljana, Slovenia
vesna.stemberger@pef.uni-lj.si

² University of Maribor, Faculty of Arts, Maribor, Slovenia
joca.zurc@um.si

Physical education assessment is one of the most challenging forms of assessment in school, as it aims to objectively assess the pupils’ knowledge while promoting a positive attitude towards sport and lifelong physical activity to maintain health. Through an empirical qualitative study using a focus group approach, we aimed to gain insight into the experiences and opinions of teachers about assessment in physical education (PE). Five class teachers and five PE teachers, each with at least 15 years’ experience teaching the 3rd to 9th grades in primary school, participated in two focus groups. The results of the qualitative content analysis revealed five key themes: the impact of numerical assessment on self-image, pupils’ attitude towards the subject and interest in sport, the factors influencing pupils’ intrinsic motivation to engage in sport, the methodology of assessment, and the advantages and disadvantages of numerical assessment.

DOI
[https://doi.org/
10.18690/um.pef.2.2024.27](https://doi.org/10.18690/um.pef.2.2024.27)

ISBN
978-961-286-899-4

Keywords:
focus group,
knowledge assessment,
physical education,
primary school,
quality of PE



University of Maribor Press

DOI
[https://doi.org/
10.18690/um.pef.2.2024.27](https://doi.org/10.18690/um.pef.2.2024.27)

ISBN
978-961-286-899-4

Ključne besede:
fokusna skupina,
ocenjevanje znanja,
športna vzgoja,
osnovna šola,
kakovost športne vzgoje

ŠTEVILČNO – OPISNO – BESEDNO: IZKUŠNJE IN MNENJA UČITELJEV O OCENJEVANJU PRI PREDMETU ŠPORT V OSNOVNI ŠOLI

VESNA ŠTEMBERGER,¹ JOCA ZURC²

¹ Univerza v Ljubljani, Pedagoška fakulteta, Ljubljana, Slovenija
vesna.stemberger@pef.uni-lj.si

² Univerza v Mariboru, Filozofska fakulteta, Maribor, Slovenija
joca.zurc@um.si

Ocenjevanje pri predmetu šport je eno izmed najbolj zahtevnih področij ocenjevanja v vzgojno-izobraževalnem sistemu, saj je njegov cilj korektna in objektivna ocena znanja učenca ter hkrati razvoj pozitivnega odnosa do športa in vseživljenjskega ukvarjanja s telesno dejavnostjo v funkciji ohranjanja zdravja. Z empirično kvalitativno raziskavo s pristopom fokusne skupine smo želeli pridobiti vpogled v izkušnje in mnenja učiteljev o ocenjevanju pri predmetu šport. V fokusni skupini je sodelovalo 5 učiteljev razrednega pouka in 5 učiteljev športa, ki so imeli nad 15 let izkušenj ter so poučevali v enem od 3. do 9. razreda osnovne šole. Rezultati kvalitativne vsebinske analize so razkrili pet osrednjih tem, kot so vpliv številčnih ocen na samopodobo, odnos do predmeta in interes za športne dejavnosti pri učencih, dejavniki, ki vplivajo na notranjo motivacijo učencev za ukvarjanje s športom, načini pridobivanja ocen, prednosti ter pomanjkljivosti številčnega ocenjevanja.



Univerzitetna založba
Univerze v Mariboru

1 Introduction

Regular physical activity has a significant correlation with health, and more active individuals show more favourable outcomes in several psychophysical health indicators. Moreover, the level of physical activity in adulthood has been shown to be strongly related to the exercise habits formed during childhood and adolescence (Pangrazi, 2000). Therefore, regular participation in physical education (PE) in primary school is of paramount importance, as in addition to promoting an active lifestyle it can encourage a positive experience of sport, the acquisition of various motor skills, the development of motor abilities and motor functionality, and the formation of a healthy lifestyle (Kovač et al., 2011). Research shows that a sense of competence in PE is important for pupils who strive to appear competent in sport in front of their peers or classmates (Tremblay et al., 2000). Achievements in PE or the related grades can thus be an essential factor in shaping a pupil's self-image in this context (Štemberger, 2001).

Assessment of PE is one of the most challenging areas of school evaluation, as the aim is to assess knowledge and skills fairly and objectively while at the same time instilling a positive attitude towards sport and raising pupils' awareness of the importance of lifelong participation in it as a way of maintaining health. The assessment should thus not adversely affect pupils' perception of sport and its importance in everyday life. The aim of PE is to support the development of optimal exercise habits among pupils and positively impact their self-image, increasing the chances of lifelong participation in sport, and this is unlikely to be achieved if we look for their weak areas in the assessment. It is to be expected that a pupil who does not do well in PE will avoid sporting activities, not only at school but also in their leisure time. However, research shows that the amount of sport a pupil is involved in – both in and out of school – is an important contributor to better school performance (Booth et al., 2014), the management of behavioural problems (Zurc et al., 2022), as well as to regular participation in sport in adulthood (Lahti et al., 2018).

In this paper, we present the fundamental features of PE assessment in primary school, the guidelines for its assessment and the different views that characterise assessment in this educational area. Through an empirical qualitative study with a focus group approach, we aimed to gain insight into the opinions of class teachers

and PE teachers teaching in primary school at grades 3 to 9, their experiences, views and opinions on numerical assessment of PE in terms of school performance and the promotion of pupils' positive attitudes toward and enjoyment of daily physical activity.

2 PE assessment in school

Assessment of PE is often neglected due to the nature of the subject, but at the same time there is an urgent need for it. Quality assessment of PE requires, first and foremost, the proper planning and implementation of the pedagogical process, in which the teacher, following the curriculum (Kovač et al., 2011), primarily assesses the pupil's motor knowledge, taking into account individual changes in physical and motor development. It considers that pupils are different, as their characteristics and abilities depend on their dispositions, previous experiences and the social environment in which they live. It sets individual goals, finds the content in which they will be successful, differentiates methodological procedures and emphasises the importance of their progress. (Ibid., p. 52)

Since the 1996 school reform in Slovenia and the introduction of nine-year schooling, assessment has been descriptive and numerical in primary school and numerical only in secondary school. Initially, a descriptive assessment was intended for pupils in the first and partly in the second educational cycle. However, since the amendment of the Primary School Act pupils have been assessed by descriptive assessment only in the first and second educational grades. Despite the opposition of some experts (Kristan, 2009), Lorenci (2000) believes that the only question about assessment in the PE may be what type of assessment it should be (numerical, categorical, descriptive), and not whether or not to assess the PE.

2.1 Recommendations for PE assessment

The assessment of PE should be based on an integrated or holistic approach to assessment and grading (Kovač et al., 2004). This means that assessment and grading should primarily encourage teachers to improve the quality of their teaching and motivate pupils to engage in physical activity. Quality teaching is and should be the foundation of any objective assessment (Hay & Penney, 2009). Assessment should

thus incentivise pupils to participate in sport and indirectly assess the teacher's performance (Kovač et al., 2011).

The PE curriculum (Kovač et al., 2011) identifies three aspects of monitoring and assessing pupils' progress, namely (1) the level of acquisition of sport skills, (2) monitoring personal sport performance, and (3) monitoring the pupil's physical, functional and motor development. The regular monitoring of and feedback on the data collected on pupils' progress, as well as the observation and analysis of the process of work, enable teachers to plan the educational process accordingly, to adapt lessons to the individual, to advise on improving performance and to involve pupils in various extracurricular sporting activities.

The curriculum in Slovenia states that the teacher should consider the following principles when assessing pupils in PE (ibid., p. 52):

- The assessment should focus primarily on the pupil's motor skills, considering individual changes in physical and motor development;
- The basis for evaluation is the achievement of knowledge and skills according to related educational cycle;
- The assessment should take place when the practical and theoretical content has been completed and mastered by most pupils;
- The assessment criteria must be communicated to all pupils at the beginning of the school year;
- Different assessment methods are used, and different areas are assessed, namely performance, written, oral and other products;
- In the first and second educational cycles, the assessment should focus on selected core competences and, in the last educational cycle, on applying competences in different situations;
- Assessment of knowledge and skills must comply with the current legislation.

3 Empirical study

The survey was conducted as part of an evaluation study entitled *Analysis of the Suitability of Numerical Assessment in Sports, Music and Visual Arts*. The research aimed to analyse numerical assessment of PE, fine arts and musical arts, from grades 3 up

to 9, in terms of assessing pupils' progress, the achievement of the objectives of primary school education, teachers' competence in identifying pupils' predispositions and evaluating their knowledge, and the implementation of curricula related to testing and assessment (Usenik et al., 2022).

Following the research objectives, quantitative and qualitative research approaches were used to collect and analyse the data from the perspectives of pupils and teachers. By integrating both quantitative and qualitative methods, the researchers aimed to provide a holistic understanding of the research problem arising from concrete situations of school practice, actively involving the research participants (Zurc & Ferligoj, 2023). In the present paper, we focus on the results relating to teachers' experiences and opinions about assessing pupils' knowledge of PE using a qualitative focus group research approach (Klemenčič & Hlebec, 2007).

3.1 Methods

The selection of participants for the focus group was based on a sampling of teachers who teach PE from grades 3 to 9 in one of the 48 selected primary schools. The sample of schools was selected from a representative stratified sample of the total population of primary schools in Slovenia, which was used in the quantitative part of the study (Usenik et al., 2022) and represented an even representation of primary schools across all 12 Slovenian statistical regions. The focus group on the assessment of PE involved five class teachers and five PE teachers. Three female and two male teachers participated in a focus group with class teachers, and two female and three male teachers participated in a focus group with PE teachers. All the participants had at least 15 years of experience teaching PE, and of conducting numerical assessments, and were currently employed in a primary school. The more experienced teachers for the focus groups were purposively selected. We wanted to include the perspectives of school professionals with longer experience and insight into the practise of PE teaching and assessment in primary schools, which have undergone intense change over the last 25 years when the nine-year primary school was introduced. All participants in our focus groups have witnessed these changes over the last two decades and have similar experience and knowledge of PE assessment.

In Slovenian primary schools, class teachers can teach PE from grade 3 to grade 5, and PE teachers have experience in teaching PE up to grade 9. Therefore, we collected data separately by conducting two focus groups with the same questions. First, a focus group with class teachers and then a focus group with PE teachers were implemented, with each teacher participating in only one group. Both focus groups were conducted remotely, using the Zoom application. The teachers were provided with the initial discussion topics when they were invited to participate in the groups.

The focus group on PE assessment with the class teachers was conducted on 25 May 2022 and lasted one hour and four minutes, while that with the PE teachers was held on 2 June 2022 and lasted one hour and 17 minutes. The first author of this paper carried out both focus group interviews. The discussions were moderated according to the following initial themes, which were the same for both focus groups: the main characteristics of numerical assessment of PE, approaches to obtaining grades in PE, the advantages and disadvantages of numerical assessment of PE, how numerical grades affect pupils' attitude towards PE, the development of a positive attitude to sport, the formation of a positive self-image, and the factors that influence the intrinsic motivation of pupils to engage in sport.

Data collection was carried out under the fundamental ethical principles of qualitative empirical research. All the participants voluntarily and anonymously participated in one of the focus groups, with the possibility to withdraw at any time without consequences. All items that could reveal the individual's identity were removed from the collected data.

The video conference calls of the focus groups were recorded, and audio transcriptions were made. The data analysis was carried out with a qualitative content analysis in three levels, namely (1) codes, (2) categories and (3) themes. All analysis was done by hand. The analysis was carried out in the following sequential steps (Adam et al., 2012; Zurc, 2023): (1) preparation of transcripts based on the recorded conversations; (2) reviewing and editing of the transcripts, encryption of participants' statements; (3) text coding by searching for the meaningful parts of the text that answer the research questions; (4) categorisation or synthesis of the obtained codes into categories; (5) axial coding or defining the relations between the

category and its codes; and (6) selective coding or establishing relationships between themes.

3.2 Results

The qualitative content analysis identified five central themes: (1) the influence of numerical assessment on self-image, attitude towards PE and interest in sport among pupils (28 statements); (2) factors influencing pupils' intrinsic motivation to engage in sport (28 statements); (3) methods of obtaining grades (22 statements); (4) shortcomings of PE numerical assessment (20 statements); and (5) the advantages of PE numerical assessment (14 statements). The results show that both class teachers and subject teachers who teach PE in primary school paid the most attention to the impact of numerical assessment on the pupils' self-image, attitude to and interest in sport, and to the factors that influence the pupils' intrinsic motivation to engage in sport. To a lesser extent, both groups highlighted the advantages of the numerical assessment of PE, with more advantages perceived by the class teachers than the subject teachers.

3.2.1 Methods of grading PE

In the responses of the group of class teachers, two categories emerged on the topic of grading PE: (1) formative monitoring of knowledge, and (2) the possibility of improving grades (Table 1).

Table 1: Methods of grading PE

Theme	Category	Codes
Methods of grading (22 units: 14 PE, 8 CT)	formative evaluation of knowledge (4 units, 0 PE, 4 CT)	setting criteria, setting goals, formative monitoring, giving feedback
	improving grades (4 units, 0 PE, 4 CT)	opportunity to improve grades, effort
	assessment organisation (7 units, 7 PE, 0 CT)	individual assessment, frontal, formative, avoiding stress, trying to find the best performance
	assessment context (10 units, 10 PE, 0 CT)	limited range of grades, knowledge achieved, effort, attitude, adjustment of the content

Legend: CT = class teachers; PE = physical education teachers.

The use of formative monitoring was described by class teachers as follows: “We work out the criteria together with the pupils, and then they are monitored on an ongoing basis. I give them feedback on what they still need to pay attention to. When the pupils see that they are doing well, when I know they are doing well, we decide when to assess them” (3/CT1). The class teachers pointed out that they also allow pupils to improve their grades in PE: “In our class, they can improve their grades when they feel ready, but also when I see that they are ready” (4/CT1). Most of the time, there is a time limit for improvement, e.g., “They can improve their grades here for about a month after we have assessed them” (3/CT1), or “We do have an announcement of when it will be possible to improve grades. Still, if the pupils want to show their progress sooner, they can do so” (5/CT1). However, one teacher pointed out that only those pupils who show effort can improve their grades: “Yes, they can improve their grades too, but only the ones who are making the effort can improve their grades” (5/CT1). If a pupil “flunks’ and therefore has a bad grade, then they cannot improve it” (1/CT1).

In the group of PE teachers, two categories emerged in the answers regarding the assessment methods in PE: (1) the organisation of the assessment, and (2) the content of the assessment. Regarding the organisation of the assessment, teachers shared different experiences. Some grade each pupil separately while the rest of the class does something else, e.g., “I grade some of them, while the rest of them do other things on the circuit. When they come to me, I assess them” (2/PE). Other teachers assess all the pupils at the same time: “Well, I assess them all while they are engaged in an activity, and I assess them all at the same time” (5/PE). A few teachers stressed that they try to make the assessment process stress-free for the pupils, e.g., “They don’t even feel like I’m grading them because we do it so quickly, without drama, and we’ve done a lot of practice before” (1/PE). Again, the teachers stressed that they look for knowledge and skills when grading, e.g. “I’m always looking for their best performance. If they are not good at something, they just repeat it several times, and I grade the best performance” (2/PE).

There was some disagreement among the PE teachers about how the PE assessment should look and what criteria it should be based on. For example, most participants stated that for the assessment they primarily use only grades three to five, e.g. “I only have three grades, too, although I find it really difficult to give a grade three” (4/PE). Some felt that the assessment of PE should be based on the pupil’s attainment of

skills: “I think the assessment should be based on motor skills – at least that’s what we were taught. We don’t have a proper scale for the attitude a pupil has towards sport, so we shouldn’t assess that. For example, we don't assess hygiene habits, whether they have equipment or not, either” (5/PE). Others thought that the assessment of PE should be based mainly on the effort and attitude that the pupil shows towards the subject, e.g. “When I assess a pupil, it is their attitude towards sport that is important to me. The actual ability is less important to me” (1/PE).

3.2.2 The advantages of numerical assessment of PE

Among the advantages of numerical grading, the class teachers highlighted the greater sensitivity of numerical grading compared to verbal grading and its positive impact on pupils’ motivation (Table 2).

Table 2: The advantages of numerical assessment of PE

Theme	Category	Codes
The advantages of numerical assessment (14 units: 5 PE, 9 CT)	assessment sensitivity (3 units: 0 PE, 3 CT)	better sensitivity of numerical assessment, more levels on a rating scale
	motivation (8 units: 2 PE, 6 CT)	external motivation, more effort, competitiveness, responsibility
	subject equivalence (3 units: 3 PE, 0 CT)	reputation of the subject, equivalence of the subject with other subjects

Legend: CT = class teachers; PE = physical education teachers.

Regarding the greater sensitivity of the numerical ratings, the teachers noted that these offer more steps than verbal ratings. One class teacher said: “Before, we had three grades: less successful, successful and very successful; now we have five. Well, at least in theory, because in practice, I use three. But there is a big difference between a four and a five. Anyone can get a four, but for a five, they have to try hard” (2/CT1). The class teachers emphasised the motivational function of numerical grades in PE. For example, they considered that such grades were an important source of extrinsic motivation, and that they “make pupils give more of themselves, develop their skills, their potentials” (5/CT1). Moreover, some participants felt that numerical grading at the class level was also beneficial because it does not encourage competition between pupils to an extent that would be detrimental to their interpersonal relationships. As one class teacher said: “Pupils are very supportive of each other. They are happy to see a good mark for a classmate” (2/CT1).

In contrast, the only advantage of numerical grades that a PE teacher mentioned was raising the prestige of PE and the seriousness of their work: “Maybe grades are not so much a motivating factor for pupils, they are more important for parents and colleagues in other fields. A grade can be a tool for giving some seriousness to the work we do, until you have some real experience with the pupils” (2/PE). Another PE teacher stated: “There is no positive attitude of society towards knowledge in any field. We need assessment to make people value the subject. Our society is very performance-oriented, it wants grades” (1/PE).

3.2.3 The disadvantages of numerical assessment of PE

The disadvantages of numerical assessment of PE that were identified by the participating teachers include parental pressure, the emergence of anxiety and excessive competitiveness in pupils, the low informative value of the assessment, and the negative impact on motivation for the subject (Table 3).

Table 3: The disadvantages of numerical assessment of PE

Theme	Category	Codes
The disadvantages of the numerical assessment of PE (20 units: 13 PE, 7 CT)	pressure from parents (2 units: 0 PE, 2 CT)	pressure from parents
	anxiety (6 units, 3 PE, 3 CT)	fear, anxiety, stress, burden of grading
	competitiveness (4 units, 2 PE, 2 CT)	encouraging competitiveness, struggling for grades
	informative value of grading (2 units, 2 PE, 0 CT)	the low informative value of grading
	motivational impact (6 units, 6 PE, 0 CT)	negative impact, disciplining

Legend: CT = class teachers; PE = physical education teachers.

One class teacher said the following of parental pressure: “The pupils have no problem with the change to numerical assessment. They are happy with the grade as it is and know why they got it. The next day, they came to school disappointed because there was no proper support at home because they did not get a 5” (2/CT1). Another class teacher felt that numerical grading could lead to greater anxiety: “Pupils can be scared, and the next time they will not want to try something that they don’t know how to do” (5/CT1). Another class teacher pointed out that numerical grades can lead to excessive competitiveness: “Numerical grades can

encourage competitiveness, pupils ‘scramble’ for grades. I think it is not so bad here, at the class level, but later on, especially in the last three years, it is” (4/CT1).

The PE teachers pointed out that one disadvantage of numerical assessment of PE is that “assessment brings a lot of stress, but it does not bring so much better results” (4/PE). Furthermore, they considered that assessment could have a negative effect on the pupils’ motivation to engage in sport and their attitude towards it. Regarding the latter, one teacher said: “A pupil needs content that they can relate to, then they will work. Not because of a grade, not for younger pupils. The content, the way the content is delivered, the teacher, are all more important than the grade to encourage a positive attitude towards sport” (1/PE). Another teacher added: “Grading is not the way to go if you want to get pupils into sport. Assessments do not promote a positive attitude towards sport, nor allow us to get pupils to be more physically active” (2/PE).

Some of the PE teachers also felt that numerical assessment is too often used to discipline pupils. For example, one participant said: “The downside is that grades exist at all. Grades are part of the system, a tool we use to show authority” (3/PE). However, another PE teacher defended this function of numerical grades: “Yeah, well, but now imagine you don’t have these grades yet. What would that mean for the school system? How would any of us survive if we didn’t have grades?” (2/PE).

3.2.4 The impact of the numerical assessment of PE on pupils’ self-image, attitude towards PE and interest in sport

Teachers in both focus groups highlighted the impact of numerical assessment on pupils’ self-image, attitude towards PE and interest in sport (Table 4).

Table 4: The impact of numerical grades on pupils’ attitude to and interest in PE

Theme	Category	Codes
The impact of numerical grades on pupils’ attitude to PE and interest in sport (28 units: 16 PE, 12 CT)	self-image (12 units, 6 PE, 6 CT)	positive impact, other factors of positive impact on self-image, teacher’s role, encouragement, no impact
	interest in sport (8 units, 5 PE, 3 CT)	teacher’s role, no impact
	attitude towards PE (8 units, 5 PE, 3 CT)	teacher’s role, no impact

Legend: CT = class teachers; PE = physical education teachers.

Among the class teachers, only one participant thought that numerical grades have a positive effect on pupil's self-image: "Grades have a positive impact on self-image. In the sense of: I tried hard, the teacher noticed it and rewarded me for my effort" (4/CT1). The other class teachers thought the teacher was more important than the assessment for developing a pupil's positive self-image, in terms of their own attitude towards the subject and their pupils, and the quantity and quality of the encouragement they given in class.

For example, one class teacher said: "The teacher's approach is more critical for developing a pupil's positive self-image than assessment. It is how the teacher relates to the pupils that is important. If you encourage them, your influence on the pupil's self-image will be positive, but otherwise not" (1/CT1). Another teacher had a similar opinion: "The grade can be a positive motivation, but the teacher's attitude is more important. It's important to value and notice the pupil. That's important for the pupil" (3/CT1). The class teachers had similar opinions in believing that peer assessment and self-assessment are important in developing a positive self-image. The latter is also encouraged by making video recordings, so the pupils can observe their progress. As one class teacher put it: "We also sometimes record ourselves and then look at the recordings and the progress made. When the pupils see themselves, they notice and believe they are making progress, and that is greater for their self-image" (2/CT1).

Similarly, the PE teachers who participated in the focus group did not see any positive impacts of a numerical grade on the pupils' self-image, attitude towards PE or interest in sport, and they were unanimous in this opinion. And as with the class teachers, the PE teachers also believed that teachers have the most significant influence in this area in terms of their approach to the pupils and how they teach. For example, one PE teacher said: "To promote the positive self-image of a pupil it's good if the teacher finds content that the pupil is good at and directs them to those activities. When a pupil succeeds it is better for their self-image than a grade" (1/PE). Other PE teachers also agreed, e.g., "It is not the grades that influence the development of a positive attitude towards sport and the pupil's self-image, but how the teacher works with the pupil" (2/PE). "If grades are supposed to influence self-image, that is fundamentally wrong. The ones we want to bring to sport are those who are less capable in this area – we need to work with such pupils, to build their self-image, not just give them a 5 and that's it" (4/PE). "If I give him a 5, I'll be the

best teacher in the world” (4/PE). Or: “The question is whether I’ll get a pupil interested in sport. It’s more important to teach, to be able to get close to the individual, to know how to teach them, not just what to teach them” (5/PE).

3.2.5 Factors influencing pupils’ intrinsic motivation to play sport

According to the teachers, the most critical influences on pupils’ intrinsic motivation to participate in sport are the teacher, the integration of movement in teaching, extracurricular activities and significant adults (Table 5).

Table 5: Factors influencing pupils’ intrinsic motivation to engage in sport

Theme	Category	Codes
Factors influencing pupils’ intrinsic motivation to engage in sport (28 units: 16 PE, 12 CT)	excellent teacher (16 units: 14 PE, 2 CT)	positive experiences with sport, consideration of the child’s needs, good atmosphere, concern for the well-being of pupils, safe environment, encouraging attitude towards pupils
	integrating movement in teaching (6 units: 0 PE, 6 CT)	integrating movement into daily life, integrating movement in other subjects
	extracurricular activities (4 units: 0 PE, 4 CT)	without grading, free extracurricular activities
	significant adults (5 units: 2 PE, 3 CT)	parents, teacher as a role model

Legend: CT = class teachers; PE = physical education teachers.

According to the class teachers, including movement in classes other than PE has a more significant impact on pupils’ intrinsic motivation to take part in sport than grades, as seen in the following comments: “Getting them to be constantly physically active so that they feel the need to move” (1/CT1); and “To include physical activity in their everyday life. Not only in PE, in all activities” (3/CT1). The class teachers stressed that it is also beneficial for pupils’ interest in sport if the school offers extracurricular activities. However, one teacher said that in order to avoid the negative effects of grades, such extracurricular activities should not be achieved with the use of electives: “Not sport electives, as these are more grades and put pressure on the pupils” (2/CT1). Moreover, according to the class teachers, parents play an important role in promoting pupils’ interest in sport through their own attitudes towards it. As such, one participant noted that it is important “to involve parents in different activities to promote physical activity” (4/CT1), and another participant

stated that it was important “to encourage the pupils, but above all also the parents. Parents are the most crucial” (5/CT1).

The PE teachers primarily focused on considering the pupils' needs when trying to promote their intrinsic motivation for sport. They stated that it is important that the teacher approaches the subject positively and recognises and understands each individual's needs, wishes and interests, as seen in the following comments: “To have a good time for one hour inside the classroom” (2/PE). “A pupil gets intrinsic motivation when you are not solving your own [the teacher's] problems at school, which is what grading is, but the pupil's problems – so you pay attention to the child” (3/PE). “I agree with everything you have said. But you have to start with the pupil himself, encouraging them not to do sport only for the grade but do sport as a way of life. So that they know how to play sport at a recreational level; this is the most crucial intrinsic motivation” (4/PE).

4 Discussion

Based on the statements made by the class and PE teachers in the focus groups on the numerical assessment of PE, it can be concluded that assessment in this subject is based on the objectives set out in the curriculum. The teachers reported that this tends to assess the pupils' progress in sport and the knowledge achieved, and that PE assessment offers opportunities for individuals to change their behaviours and attitudes. Formative monitoring of pupils' progress is also emphasised as necessary in PE assessment by Kovač and Jurak (2023b). Some participants in our study reported that they developed the assessment criteria with the pupils, and then monitored their progress with regard to these. The teachers stated that their pupils also have the opportunity to improve their grades after the initial ones are given, and that they are always looking for and taking into account the pupils' best performance, and generally ensure that the stress of assessment is minimised. Most teachers said that they only use grades between three and five in the PE assessment, although they disagreed as to whether the grade obtained should be based primarily on a pupil's motor skills or on their attitude towards the subject and effort made in class.

The participating teachers identified the following advantages of the numerical assessment of PE: the greater sensitivity compared to verbal assessment, the positive impacts on the pupils' motivation and approach to work in class, and raising the

subject's profile in general. In contrast, the main disadvantages of numerical assessment were: the low informative value of the assessment, the stress and anxiety of the assessment for pupils, pressure from parents, excessive competition between pupils, and the lower motivation of pupils for sport in general as well as less positive attitudes towards PE. According to the teachers who were interviewed as part of this study, numerical assessment is not an appropriate way to promote positive attitudes towards sport and a more physically active life. As a result, the teachers did not report any positive impact of numerical assessment on the pupils' self-image and attitudes towards sport. Rather than grades, the teachers stated that the teacher, their attitude towards the subject and pupils, as well as the amount and quality of encouragement given in class, are all more important for developing pupils' interest in sport and a positive self-image.

Among the factors that positively influence pupil's intrinsic motivation to participate in sport the teachers identified the inclusion of movement in other school subjects and activities, the provision of free extracurricular sport activities at school, parental involvement in sport activities, the consideration of pupil's needs, wishes and interests in PE lessons, and the teacher's attitude towards sport. The findings are in line with previous studies (Štemberger & Petrušič, 2021, 2022), which showed that different forms of teaching, the use of sports equipment and teachers' non-verbal communication are essential factors in increasing participation in sport.

4.1 Study limitations and directions for further research

Despite many strengths and valuable insights, this study also has some limitations that need to be considered. First, a qualitative methodological approach was used to gain a detailed and comprehensive insight into the experiences and opinions of class and PE teachers on PE assessment in primary schools. However, qualitative focus groups have certain limitations that lead to some disadvantages of the study, such as a small, non-random sample, which may indicate a bias in opinions and do not allow generalisation of the results to other teachers. The dynamics of the focus group depend on its members. It is conceivable that the participants could steer the discussion towards different aspects. Therefore, further studies are needed to verify our qualitative results on a representative sample of Slovenian teachers.

Second, the groups of class and PE teachers should be considered based on the differences in their knowledge and experience in teaching PE. Most importantly, class and PE teachers in Slovenian primary schools teach different age groups of pupils. Class teachers can only teach from 3rd to 5th grade, so they have experience teaching pre-adolescent pupils. At the same time, PE teachers teach students up to grade 9, so the teaching experiences of both groups are different, which was reflected in our study in their different perspectives on PE assessment. Similar studies have shown that class teachers perceive PE as an essential part of the curriculum, but also experience it as one of the more difficult subjects to teach (DeCorby et al., 2005). Future studies should, therefore, investigate in more detail why these differences occur, what factors (e.g. training, work experience, personal attitudes towards sport and physical activity) might explain them and what statistical significance exists between the professional groups.

Finally, the differences in perspectives could also be influenced by the demographic characteristics of the teachers, e.g. gender and age. These aspects were not explicitly addressed in this study. However, both focus groups had equal numbers of female and male representatives. There is a need to analyse the data by gender to identify any differences between the opinions and experiences of female and male teachers about PE assessment. The variable of work experience should also be considered by including teachers with different teaching experiences. The findings obtained in this study could only be generalised to more experienced teachers with 15 or more years of teaching experience. We hypothesise that by including the variable of years in the profession, we can better understand whether teachers' responses vary according to their length of professional experience in PE teaching. All mentioned aspects should be carefully studied using quantitative and mixed methods approaches in the future.

5 Conclusion

Our research shows that both the class and PE teachers believe that the teachers, their attitudes towards the subject and pupils, and the incentives given to the pupils are more important than numerical assessment in determining a child's attitude to and interest in sport. Therefore, the importance of assessing pupils' progress should continue to be emphasised in PE classes, alongside monitoring and evaluating (but not numerically assessing) pupils' motor skills and development. Teachers should consider the long-term goal of PE classes, which is lifelong participation in physical

activity and sport to maintain and enhance health. From that point of view, pupils should acquire as many different motor skills as possible so they have more opportunities to engage in their chosen form of physical activity in adulthood.

A number of papers have been written on the assessment of PE, and suggestions have been made about the fairest and most appropriate methods. However, there is a lack of professional literature on assessment in this context, particularly at the beginning of primary education and considering the specific developmental characteristics of pupils at this stage of schooling. More studies and additional professional training could address the existing gaps in the literature, raise the quality of primary education in PE, and help encourage lifelong physical activity among the population.

References

- Adam, F., Hlebec, V., Kavčič, M., Lamut, U., Mrzel, M., Podmenik, D., Poplas Susič, T., Rotar Pavlič, D., & Švab, I. (2012). *Kvalitativno raziskovanje v interdisciplinarni perspektivi*. Ljubljana: Inštitut za razvojne in strateške analize.
- Booth, J. N., Leary, S. D., Joinson, C., Ness, A. R., Tomporowski, P. D., Boyle, J. M., & Reilly, J. J. (2014). Associations between objectively measured physical activity and academic attainment in adolescents from a UK cohort. *British Journal of Sports Medicine*, *48*(3), 265–270. <http://dx.doi.org/10.1136/bjsports-2013-092334>
- DeCorby, K., Halas, J., Dixon, S., Wintrup, L., & Janzen, H. (2005). Classroom teachers and the challenges of delivering quality physical education. *The Journal of Education Research*, *98*(4), 208–220.
- Hay, P., & Penney, D. (2009). Proposing conditions for assessment efficacy in physical education. *European Physical Education Review*, *15*(3), 389–405.
- Klemenčič, S., & Hlebec, V. (2007). *Fokusne skupine kot metoda presojanja in razvijanja kakovosti izobraževanja*. Ljubljana: Andragoški center Slovenije.
- Kovač, M., Jurak, G., & Strel, J. (2004). Predlog modela in meril ter priporočila za oblikovanje ocene pri notranjem preverjanju in ocenjevanju znanja pri športni vzgoji. In M. Kovač et al. (Eds.), *Nekatera poglavja didaktike športne vzgoje v prvem in drugem triletnju osnovne šole* (str. 136–153). Ljubljana: Fakulteta za šport.
- Kovač, M., Markun Puhan, N., Lorenci, B., Novak, L., Planinšec, J., Hrastar, I., & Pleteršek, K. (2011). *Program osnovna šola: Športna vzgoja: Učni načrt*. Ljubljana: Ministrstvo za šolstvo in šport Republike Slovenije, Zavod Republike Slovenije za šolstvo. https://www.gov.si/assets/ministrstva/MIZS/Dokumenti/Osnovna-sola/Ucni-načrti/obvezni/UN_sportna_vzgoja.pdf
- Kovač, M. & Jurak, G. (2023a). Ocenjevanje uokvirjajo pravilniki in didaktična priporočila učnega načrta. *SLOfit nasvet*, *7*(4), 19–23.
- Kovač, M. & Jurak, G. (2023b). Temelj dobrega ocenjevanja je dober pouk. *SLOfit nasvet*, *7*(4), 19–23.
- Kristan, S. (2009). *Pogledi na šport 1 – Šolska športna vzgoja in njeno ocenjevanje*. Ljubljana: Fakulteta za šport, Inštitut za šport.

- Lahti, A., Rosengren, B. E., Nilsson, J. Å., Karlsson, C., & Karlsson, M. K. (2018). Long-term effects of daily physical education throughout compulsory school on duration of physical activity in young adulthood: An 11-year prospective controlled study. *BMJ Open Sport & Exercise Medicine*, 4(1), e000360. doi: 10.1136/bmjsem-2018-000360.
- Lorenci, B. (2000). Številčno ocenjevanje športne vzgoje. *Vzgoja in izobraževanje*, 31(2–3), 115–118.
- Pangrazi, R. P. (2000). Promoting physical activity for youth. *Journal of Science and Medicine in Sport*, 3(3), 280–286.
- Štemberger, V. (2001). Samopodoba otroka in vplivi na oblikovanje le-te. In B. Škof & M. Kovač (Eds.), *Uvajanje novosti pri šolski športni vzgoji: Zbornik referatov* (pp. 553–559). Ljubljana: Zveza društev športnih pedagogov Slovenije.
- Štemberger, V., & Petrušič, T. (2021). The importance of different forms of within-class grouping and teacher's nonverbal communication for achieving higher MVPA and VPA levels in PE lessons. In S. Šalaj, & D. Škegro (Eds.), *Proceedings: 9th International Scientific Conference on Kinesiology* (pp. 439–443). Zagreb: University of Zagreb, Faculty of Kinesiology.
- Štemberger, V., & Petrušič, T. (2022). Classroom teachers' views on the influence of the number of school activity props on students' physical activity. In G. Leko (Ed.), *Kinesiology in Europe: Challenges of Changes: Proceedings* (pp. 485–493). Zagreb: Hrvatski kineziološki savez. <https://hrks.hr/images/Ljetna-skola-2022-final-web.pdf>
- Tremblay, M. S., Inman, J. W., & Willms, J. D. (2000). The relationship between physical activity, self-esteem, and academic achievement in 12-year-old children. *Pediatric Exercise Science*, 12(3), 312–323.
- Usenik, J., Breznik, I., Javornik, M., Potočnik, R., Štemberger, V., & Zurc, J. (2022). *Nacionalna evalvacijska študija Analiza primernosti uporabe številčnega ocenjevanja na področju športa, glasbene in likovne umetnosti: Zaključno vsebinsko poročilo*. Maribor: Pedagoška fakulteta.
- Zurc, J., Jelovčan, G., & Štemberger, V. (2022). The role of physical/sports activities in coping with behaviour problems among primary school students. *Revija za elementarno izobraževanje*, 15(4), 409–425. doi: 10.18690/rei.15.4.409-425.2022.
- Zurc, J. (2023). Fokusna skupina kot metodološki pristop v evalvaciji in zagotavljanju kakovosti visokošolskega izobraževanja. In A. Mlekuž, & I. Žagar (Eds.), *Raziskovanje v vzgoji in izobraževanju: Izobraževanje učiteljev in učiteljev za raziskovalno učenje in poučevanje. 8. znanstvena konferenca* (pp. 39-40). Ljubljana: Pedagoški inštitut. https://www.pei.si/wp-content/uploads/2023/09/1_zbornik_cel_2023.pdf
- Zurc, J., & Ferligoj, A. (2023). Integracija kvantitativne in kvalitativne metodologije v družboslovnem raziskovanju. In A. Istenič, et al. (Eds.), *Upbringing and education between the past and the future* (pp. 511-528). Koper: Založba Univerze na Primorskem. <https://www.hippocampus.si/ISBN/978-961-293-255-8.pdf>

