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Exploring Assessment of Students in Physical Education: Nationally Representative Survey of School Community in Lithuania

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Abstract

Assessment in physical education lessons remains a relevant issue both among practitioners and in scientific discourse. There is also no consensus in Lithuania on the assessment of students in physical education lessons. Thus, the aim of the present study was to investigate Lithuanian students', their parents', teachers' and school administrators' opinions on the assessment in physical education. A total of 4073 participants (1497 students of 9-10th grades, 1498 parents, 317 physical education teachers, 443 teachers of other teaching subjects, and 318 school administrators) from different schools in Lithuania participated in a questionnaire survey. It was found that from the perspective of the study participants, effort and progress should be assessed most in physical education, then physical fitness, knowledge, and motor skills. The most important criteria for cumulative assessment of students in physical education lessons should be students' progress and achievements, activity in classes and attendance, with knowledge being considered the least important criterion. The study results highlighted the importance of encouraging teachers to more actively communicate learning goals as well as involve students into the evaluation processes.

Keywords: Physical education, assessment, school community.

1. Introduction

Assessment, regardless of the field of study or the stage at which it takes place, is an essential element of the educational process (Baird et al., 2014; Shepard, 2000). As in all courses of study, assessment in physical education (PE) is also very important. Assessment in PE is defined as any information gathering activity in the educational settings that is initiated to make certain interpretive/assessment decisions about students (Hay, Penny, 2013). Thus, the assessment in PE

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provides students with feedback on their current level of achievement, learning progress, and the effectiveness of teaching methods and the physical education program (Borghouts et al., 2017). Students' assessment in PE benefits both students and teachers, as learning goals, learning activities must be combined and other pedagogical decisions must be made based on the results of students' PE assessment (Marmeleira et al., 2020). However, research literature suggests that PE itself is sometimes underestimated both because of the insufficient quality of the curriculum (Collier, 2011; Sheehy, 2011) and because of the prevailing views that academic subjects developing cognitive skills are more important than those in which artistic, expressive, or bodily-athletic qualities are more valued (Bailey, 2018). Moreover, it is often easy for students to obtain high grades in PE, especially in comparison with the assessments in other subjects, which also contributes to the fact that PE is considered as the easiest subject in school by students (Marmeleira et al., 2020; Zhu, 2015). Similarly, assessment is identified as an existing problem in PE (Dinan-Thompson, Penny, 2015) or seen as "one of the most fraught and troublesome issues physical educators have had to deal with over the past 40 years or so..." (López-Pastor et al., 2013: 57).

Assessment in PE as an issue is also illustrated by the ongoing debate on traditional and alternative forms of assessment (López-Pastor et al., 2013). Both the physical fitness test as a form of assessment in PE and different techniques of assessment depending on the purpose of assessment are being widely discussed. In this sense, a distinction is made between formative and summative assessment techniques which related with the consideration of assessment of learning and assessment for learning differences. According to Smith (2007), assessment of learning is based on the information given to the student about learning that has already taken place, whilst assessment for learning is based on the information given to the student about the process for future learning in relation to an analysis of earlier learning. Therefore, the aim of assessment for learning is to provide feedback to learners regarding their progress toward the learning objectives and to allow students to take ownership of their own learning (Chng, Lund, 2018). The assessment for learning technique used when involving students in the whole assessment process has been found to increase their motivation to learn (MacPhail, Murphy, 2017; Ni Chróinín, Cosgrave, 2013). On the other hand, the way how assessment for learning is described in theory is not necessarily applied by teachers in practice, as it is not always easy for them to understand the concept of assessment for learning and its potential significance for it (Leirhaug, 2016; Leishaug, Annerstedt, 2016), or to find balance between different assessment versions (Tolgfors, 2018). This suggests that it is important to better understand the attitudes of the participants in the educational process towards assessment in PE.

When analysing students' assessment in PE, it is important to involve them in the assessment process and it is essential that they knew and understood the assessment criteria (Redelius, Hay, 2012). But what are the students' opinions about assessment in PE? Redelius and Hay (2012) investigated the assessment and grading of 15-16-year-old students in PE. Assessments appeared to be important for students, but students did not recognize the formal criteria as the basis for assessing their achievements. Similarly, Zhu's (2015) study of adolescents using a mixed method study revealed that students' expectations regarding their assessment in PE did not quite coincide with the established common standards that teachers adhered to. For example, not many students tended to value athletic performance in sport skills, and more of them valued participation and behaviours. Besides, they believed that previous involvement in sports outside the school also had an impact on students' assessment in a PE. Modell and Gerdin (2021) examined the 16-18-year-old students' experiences of equitable assessment and grading practices in PE and health. The results showed that students did not consider the assessment and grading of their knowledge and skills to be fair. They did not like their experience in sport to become important in order to achieve certain grades. In their opinion, it was not right when they had to demonstrate their knowledge and skills in the "right" sports, especially when not everyone had the same knowledge and skills in those sports. According to students, grading should better reflect their personal development. Lyngstad et al. (2020) studied Norwegian students' experiences of their teachers' assessment of and for learning in PE depending on student physical abilities. Physical education teachers were found to pay more attention to students with higher levels of physical fitness compared to those with lower levels. Despite the fact that all students received grades, they felt that less physically fit students received less teachers' attention when assessed, which could negatively affect these students' aspiration in PE and, at the same time, activity in the classroom. Aarskog (2020) studied how

students themselves participated in the assessment processes that occurred in PE. The results obtained revealed that while teachers did not commonly initiate strategies intended to engage students in self- or peer-assessment, students participated in different processes that could be understood as assessment. Thus, students participated in the assessment process by interacting with teachers, peers, taking into account their learning experience and interpreting the information available to gain a better understanding of where they were in their learning, where they were going and how to get there. It is therefore important for the physical education teacher to use more reflective feedback, thus encouraging students to utilize more reflective assessment processes. Another study with a large sample of 15-19-year-old students also confirmed that it was important for students to know how they were assessed and to get feedback on their assessment (Leishaug, Annerstedt, 2016) because it was easier for them to understand what they were expected to learn in PE when they clearly understood their learning goals (Redelius et al., 2015).

Research including students is relevant because it reveals their experiences, opinions about the assessment process, which can provide important information about the discrepancy between students' expectations in PE and the content of teaching as well as the established assessment criteria for students. Besides, the findings of physical education teachers' research on assessment in PE are also important. Several studies have found that it is sometimes difficult for teachers to decide which criteria are most important in assessing students or when student assessments do not reflect what is considered important in assessing (Svennberg et al., 2018). In addition, although clear grading criteria are important for teachers, values and norms as additional criteria are sometimes used as well (Svennberg et al., 2018). Therefore, teachers are trying to find a balance between more specific criterion-referenced assessment and more process-oriented non-criterion-referenced learning. Actually, data from a survey of teachers in Greece revealed that there was also a discrepancy between what they thought about formal grading criteria and how they assessed students personally (Chatzopoulos et al., 2006). Another study with physical education teachers in the Netherlands also showed that contradiction existed between reported goals of PE and assessment practice (Borghouts et al., 2017).

We can say that there has been a lot of discussion in the scientific literature about different concepts of assessment in PE (López-Pastor et al., 2013). A number of empirical studies with teachers (Borghouts et al., 2017; Chatzopoulos et al. 2006; Leirhaug, Annerstedt, 2016; Svennberg et al., 2018; Tolgfors, 2018) and students themselves (Aarskog, 2020; Lieshaug, Annerstedt, 2016; Lynsgstad et al., 2020; Modell, Gerdin, 2021; Redelius, Hay, 2012; Tolgfors, 2018) have also been conducted examining both their experiences and attitudes towards assessment in PE. However, it is worth noting a few important aspects.

First, most of the research conducted with students and teachers was qualitative. Qualitative research is important because it reveals both the experiences of student assessment and the meaning of assessment itself to students and teachers. On the other hand, there is a lack of quantitative research analysing opinions about assessment and how students' achievements in PE in a given population should be assessed. Second, PE are sometimes seen as less important compared to other subjects (Bailey, 2018; Marmeleira et al., 2020). It is the question of the status of PE in the context of other subjects that encourages a deeper understanding not only of PE but also of the attitude of teachers of other subjects towards assessment in PE, which has so far been poorly studied. Some studies have found that parents of students have little interest in the goals and content of PE (Sheehy, 2011), although their attitudes towards PE in general (Earley, Fleet, 2021) and the fact that students are assessed are positive (James et al., 2005). However, we still know little about how parents believe children's achievement in PE should be assessed. Third, the PE is part of the whole educational process at school. Although the quality of the content of individual subjects, and at the same time the student assessment system, is primarily taken care of by the teachers of these subjects, the school administration takes care of ensuring the overall quality of education. Students' progress as well as its assessment are very important indicators of school progress in the assessment of administration (Targamadzè et al., 2018). Focusing on PE, and particularly on the assessment in PE, remains an important issue for school administration. Finally, a number of previous studies have sought to explore the nuances of assessment in PE in a country-specific context, in some cases in an attempt to understand how assessment changes in the context of education system reforms (Leirhaug, Annerstedt, 2016). Although the obtained data may be valuable in analysing assessment in PE in other countries, it should be noted that in Lithuania

we still lack research on how students' achievements in PE should be assessed. To date, just one study was conducted focusing on students' opinions about the assessment of their achievement in PE (Emeljanovas, Trinkūnienė, 2011).

In Lithuania, the purpose of assessment of students' learning outcomes and progress is to determine the level of students' achievements and progress, to establish the strengths of each student, to summarize the educational results of a separate study period (at the end of the semester or academic year), identify problems and make decisions on further learning steps together with the student and his/her parents (foster parents, caregivers), necessary support for the student (Description of Curriculum..., 2015). The need to change the system of assessment of Lithuanian students' learning outcomes and progress is enshrined in the most important strategic documents of Lithuania. The Lithuanian Progress Strategy "Lithuania 2030" (2012) envisages the improvement of the evaluation system as one of the tasks for achieving a smart society. In response to this public order, the State Education Strategy for 2013–2022 (2013) envisions the introduction of criterion-based cumulative assessment as a method of self-monitoring of learner outcomes at all levels of education. In Lithuanian secondary schools, the achievements and progress of students' in PE can be assessed with a grade or "passed/failed". The school makes decisions on PE assessment, crediting and conversion of student achievements on a ten-point grading scale if the student attends a sports school or a non-formal children's sports establishment. The school offers other activities (such as board games, computer classroom activities, library activities, social activities, etc.) to students who have been exempted from PE due to poor health or temporary illness, and also agrees on how such students' achievements and progress will be assessed. The school decides which cumulative assessment criteria to use in PE. By the way, all these choices are conditioned by the resolutions of the school council (On the Approval..., 2021). Therefore, in the absence of unanimous agreements in general education schools on the assessment of students' progress and achievements in PE, researchers and teachers are constantly discussing the following issues: what should be assessed (students' innate abilities, progress and achievements, motor skills, preparation for lessons or non-formal learning achievements); how to assess (grade or "pass/fail"); what cumulative assessment criteria should be used in PE; how to assess students' achievements and progress exempted from PE due to poor health and temporarily due to illness.

Therefore, it is important to let the voices of students, teachers, school administrators and parents (as of members of a school community) be heard about the assessment in PE. With this in mind, the aim of the current study presented in this article was to investigate Lithuanian students', their parents', teachers' and school administrators' opinions on assessment in PE. The central research questions were what the members of the school community think about what should be assessed in PE, what criteria should constitute a cumulative assessment in PE and what differences exist comparing opinions of all members of the school community about the assessment in PE.

2. Material and Method

2.1. Participants

This study was performed using data from four representative samples. Students of grades 9-10, parents of students of such grades, teachers of physical education, teachers of other school subjects and representatives of the school administration (director or deputy director for education) were surveyed. The sample size of students was calculated based on the number of students of that age in the country. Assuming a 95 % confidence level and +/- 5 % confidence interval around a proportion of 50 %, recommended sample size was approximately 1484 students (calculating for grades and gender). Participants were selected using a clustered hierarchical sampling design, where the initial sampling unit was the school class. Data collection methods ensured that the samples of students were representative by age and gender. A total sample of the present study included 1530 students (response rate 84.4 %). Assuming the amount of not fully completed questionnaires, final sample was 1497 students (50.8 % female). For more detailed characteristics of students see Table 1.

Sample size for parents was defined in a similar way as for the students. A total of 1523 parents returned their completed questionnaires (response rate was 92.9 %), but assuming that some questionnaires was not fully completed, the final sample of 1498 (65 % female) was used for data analysis.

We formed two independent samples of teachers: one for physical education teachers and the other one for the teachers teaching other subjects (i.e., physics, chemistry, biology, geography, mathematics, science technologies, music, languages, information technologies, art). Assuming 95 % confidence level and margin error of 5 %, recommended sample size was approximately 315 physical education teachers. Using a cluster random sampling, questionnaires were collected from 325 physical education teachers (response rate 86,1 %), of which 317 research participants correctly completed the survey and were used for statistical analysis. Taking teachers of other school subjects as one group, the recommended sample size was 375 participants. Of the 455 enrolees, 443 participants correctly completed the questionnaires and were used for data analysis. The final sample of school administration (school directors or deputy directors for education) was formed. Following the same system, recommended sample size for this study was 287 subjects. A total of 318 school administrators returned completed questionnaires (with response rate of 99 %). More detailed characteristics of the participants are presented in [Table 1](#).

Table 1. Sample characteristics

Characteristics		Children M(SD)/ n (%)	Teachers M(SD)/ n (%)	PE teachers M(SD)/ n (%)	Administration M(SD)/ n (%)	Parent M(SD)/ n (%)
Total		1497	443	317	318	1498
Age (years)		15.4 (0.74)	45.4 (0.09)	45.5 (9.26)	49.9 (8.79)	42.4 (6.07)
Gender	Male	736 (49.2 %)	84 (19.0 %)	129 (40.7 %)	72 (22.6 %)	525 (35.0 %)
	Female	761 (50.8 %)	359 (81.0 %)	188 (59.3 %)	246 (77.4 %)	973 (65.0 %)
School type	Primary	165 (11.0 %)	75 (16.9 %)	20 (6.3 %)	46 (14.5 %)	271 (18.1 %)
	Secondary	385 (25.7 %)	139 (31.4 %)	114 (36.0 %)	88 (27.7 %)	421 (28.1 %)
	Gymnasium	947 (63.3 %)	229 (51.7 %)	183 (57.7 %)	184 (57.9 %)	806 (53.8 %)
Teaching experience (years)		-	20.4 (9.61)	20.5 (9.67)	24.9 (10.11)	-
Education	Primary-secondary school	-	-	-	-	517 (35.3 %)
	Vocational, certificate	-	-	-	-	350 (23.9 %)
	University degree or higher	-	-	-	-	598 (40.8 %)

2.2. Measures

The data were collected by means of self-reported questionnaires. All questions were the same for students, parents, teachers, and school administration except for social-demographic items. The first two questions regarding evaluation of students in PE had been used in a previous nationally representative study ([Emeljanovas, Trinkuniene, 2011](#)). Specifically, participants were asked “How should a student’s progress and achievement in physical education lessons be

assessed?” with two answer options: *by grade* or *passed/failed*. Next, participants were asked “What should be assessed in physical education lessons?”. Several answer options were presented: *knowledge and ability to use it, effort and progress, physical fitness, motor skills, non-formal learning outcomes*. Research participants could choose all the response options that were appropriate for them.

In this survey, the questionnaire also included questions such as: “What criteria should constitute the cumulative assessment in physical education lessons?”. Nine answer options were given to this question: *attendance, progress and achievement, student activity, timely performing assignments, participation in school competitions, lesson preparation, student knowledge, student behaviour* and *I do not use such assessment*. The formulation of this question was based on the documents regulating the education process in the country ([Description of Curriculum..., 2015](#)), which specifically regulates cumulative assessment as one of the forms of assessment of student achievement in the country’s schools.

The questionnaire also included socio-demographic questions: gender, age, type of school (primary, secondary or gymnasium), education (only for parents), work experience at school (only for teachers and school administration).

2.3. Procedures

The study was conducted in 2018. The surveys were administered in randomly selected primary, secondary schools and also gymnasiums in five major Lithuanian cities (102 schools in total). Vocational schools were not included in the study. The heads of the selected schools were first contacted. Teachers were informed about the survey after receiving permission from the school administration (including their own oral consent to complete the questionnaires). They were explained the purpose of the investigation, ensuring anonymity and data confidentiality. It was also emphasized that participation in the study was entirely voluntary. Questionnaires were left in the staff room. Teachers were free to take the questionnaires and leave them in a specially made box. Physical education teachers were approached in person for participation in the survey. Parents were invited to the study during parent gatherings of grades 9-10. They were explained the purpose of the survey and how anonymity and confidentiality of data would be guaranteed. After agreeing to participate in the survey, parents were asked to complete questionnaires in the classroom in the presence of the survey organizer. Student surveys were conducted by selecting one grade 9 and 10 in each selected school. Students were also explained the purpose of the study, ensuring their anonymity and data confidentiality. It was also emphasized that their participation in the survey was voluntary and that they could withdraw from it at any time. The students filled in the questionnaires during the lessons.

2.3. Statistical Analyses

Data were analysed using the Statistical Package for Social Sciences (SPSS) software, version 25. Descriptive statistics calculating percentages were performed. Chi-square test was used to compare between-group differences with Bonferroni correction test. As our research samples, especially of students and parents, were quite big, in order to minimize Type I error, we minimized the significance level to 1 % (0.01).

3. Results

According to the survey, more than two-thirds of all respondents believe that students’ progress and achievements in PE should be assessed by a grade. In the opinion of the rest, it should not be assessed by a grade, but simply as passed or failed. It was found that the opinions of different survey groups differed, except for the representatives of parents and school administration ([Table 2](#)). Students’ opinions differed compared to those of teachers, parents and school administration. More than 80 % of students maintained that their progress and achievements should be assessed with a grade. Only more physical education teachers than students believed the same. On the contrary, teachers of other school subjects were the least supportive of assessing students’ achievements in grades in PE.

Table 2. Opinions on how a student's progress and achievements in PE should be assessed and what should be assessed in lessons

	Total	Children	Teachers ^a	PE teachers ^b	Adminis- -tration ^c	Parent s ^d	χ^2 (df)
<i>How students' progress and achievements in PE should be assessed (%)</i>							
Grade	77.1	84.8 ^{abcd}	61.2 ^{bcd}	91.5 ^{cd}	73.6	71.9	175.5(4)* **
Passed/Failed	22.9	15.2	38.8	8.5	26.4	28.6	
<i>What should be assessed in physical education lessons (%)</i>							
Knowledge and ability to use it	34.7	23.3 ^{abcd}	34.2 ^{bc}	55.3 ^d	57.4 ^d	37.2	220.9(4) ***
Efforts and progress	76.8	72.6 ^{abc}	83.3 ^{bd}	92.4 ^d	90.3 ^d	72.9	113.5(4)* **
Physical fitness	44.6	53.2 ^{absd}	33.6 ^{cd}	34.9 ^{cd}	21.1 ^d	46.3	151.5(4)* **
Motor skills	25.1	22.3 ^{bc}	28.0 ^b	39.0 ^d	31.4 ^d	22.6	52.5(4)** *
Outcomes of non – formal education	8.2	5.0 ^{abcd}	11.5	17.1 ^d	12.6 ^d	7.6	68.7(4)* **

Note: a, b, c, d indicates significant difference from the group of participants' group indicated by the respective letters (adjusted p value – Bonferroni method). *** p < .001

Nearly 80 % of the surveyed participants indicated that students' efforts and progress should be assessed in PE (Table 2). Also, every second respondent mentioned the importance of assessing physical fitness, but knowledge and ability to use it were mentioned only by every third one. Students and parents agreed least on the importance of assessing effort and progress in PE compared to teachers and school administration. Comparing the opinions of teachers of physical education and other subjects, the first ones pointed out the importance of assessing students' efforts and progress. There were also statistically significant differences between the opinions of respondents about the importance of assessment of other components in PE. Students and parents were much more in favour of assessing physical fitness in PE, and at least supportive of that were the school administration members. However, it was mainly reported by the school administration that it was important to assess students' knowledge and the ability to use it in PE. Conversely, this was least supported by the students themselves compared to all other respondents. Statistically significantly fewer students, parents and teachers of other subjects, compared to physical education teachers, indicated that motor skills should be assessed in lessons.

The survey revealed the respondents' opinions on what criteria should form a cumulative assessment in PE (Table 3). Most respondents noted such criteria as students' activity, progress and achievement, and class attendance. The least mentioned were students' participation in school competitions and students' knowledge. Students and parents were less likely than teachers and administrators to mention such criteria as students' activity, progress and achievements. More physical education teachers, compared to all other participants in the study, mentioned class attendance as a criterion for cumulative assessment. A less important criterion for students and parents was participation in the competition, especially when compared to the opinions of physical education

teachers and school administration representatives. The lowest number of students, compared to other study participants, indicated students' knowledge as a criterion for cumulative assessment.

Table 3. Opinions on what criteria should form a cumulative assessment in physical education lessons

	Total %	Children %	Teachers ^a %	PE teachers ^b %	Adminis - tration ^c %	Parents ^d %	χ^2 (df)
Attendance	59.0	52.0 ^{abcd}	65.2 ^{bcd}	79.4 ^{cd}	69.4 ^d	57.4	106.6(4) ^{***}
Progress and achievements	65.2	58.6 ^{abcd}	66.8	72.2 ^d	74.8 ^d	65.2	46.8(4) ^{***}
Student's activity	61.4	58.2 ^{abc}	71.8 ^d	75.4 ^d	69.2 ^d	56.9	73.9(4) ^{***}
Timely performance of tasks	37.9	38.0	45.1 ^d	37.2	43.7 ^d	34.5	21.8(4) ^{***}
Participation in school competitions	28.9	22.5 ^{abc}	34.8 ^{cd}	44.1 ^d	47.5 ^d	26.2	131.3(4) ^{***}
Preparing for the lesson	33.7	36.5 ^d	36.1	30.9	40.9 ^d	29.2	28.4(4) ^{***}
Student's knowledge	22.4	14.0 ^{abcd}	27.8 ^d	30.0	38.8 ^d	23.9	128.3(4) ^{***}
Student's behaviour	30.6	30.2	28.4	28.4	26.1	33.1	9.2(4)
Do not use such an assessment	3.7	5.4	1.8	3.5	4.1	2.5	22.2(4) ^{***}

Note: a, b, c, d indicates significant difference from the group of participants, group indicated by the respective letters (adjusted p value – Benferroni method). *** p < .001

4. Discussion

The study sought to examine the opinions of school community members about the assessment of students in PE. Quantitative survey revealed that most members of the school community agreed that students' progress and achievements in PE should be assessed with a grade. However, opinions of different community members differed. Physical education teachers were most in favour of assessing progress and achievements in PE with a grade. Most students also believed that their achievements and progress should be assessed with a grade. By the way, a survey conducted in Lithuania ten years ago found that half of the students wanted to be graded (Emeljanovas, Trinkuniene, 2011). It is worth noting that only 61 % teachers of other subjects believed that students' progress and achievements in PE should be graded. Based on previous research, the status of a PE is not the same as that of other subjects (Hardman, 2008), and it is easier to get higher grades in PE (Marmeleira et al., 2020; Zhu, 2015), it could be speculated that the teachers in our study also expressed a similar view when expressing their opinions on assessment. Although the nature of the study does not allow to empirically substantiate the assumptions made about different positions of teachers of other subjects in relation to the subject

of PE, it shows very different opinions about assessment in this teaching subject, especially when comparing them with those of physical education teachers.

The survey revealed the views of school community members on what should be assessed in PE. Assessment of motor skills, physical fitness, knowledge and ability to use it are less important to research participants than the assessment of efforts. By the way, opinions of physical education teachers and administrative staff were the same about the assessment of students' efforts and progress. In other studies, too, the effort was most often reported by teachers as one that has been evaluated in PE (Borghouts et al., 2017; Chatzopoulos et al., 2006). Physical education teachers consider it less important to assess students' knowledge, which replicates the results of other research (Borghouts et al., 2017). However, it is worth noting that only a third of teachers of other subjects believe that knowledge should be assessed in PE. Perhaps teachers of other subjects see PE as a subject the content of which is more related to the development of physical skills and less of cognitive skills (Bailey, 2018). As with assessment of knowledge, students demonstrate similar scepticism about assessment of motor skills. Zhu (2015) found that students were reluctant to be assessed on their skill performance although they expected to learn sports skills in PE.

When commenting the results of our study, we would like to draw more attention to the respondents' opinions about the assessment of physical fitness. Health related physical fitness is assessed as one of the most used curriculum theme in PE (UNESCO, 2014). Similarly, physical fitness testing is considered to be one of the most practical ways to teach the components of health-related physical fitness in PE (Garn, Sun, 2009). On the other hand, a critical approach to the assessment of physical fitness has emerged in recent years (López-Pastor et al., 2013). Students may feel anxious that they will receive less teacher's attention due to their lower physical fitness (Lyngstad et al., 2020) or their ranking according to physical fitness data may adversely affect their motivation (Jaakkola et al., 2013). Although some studies show that students have positive attitudes towards fitness testing (O'Keeffe et al., 2021), their perceptions of enjoyment are lower in fitness testing classes compared to PE in general (Huhtiniemi et al., 2021). An interesting finding to emerge from the current study was the disparity between students and physical education teacher as only 35 % teachers, compared to 53 % of students, think physical fitness should be assessed in PE. Interestingly, teachers in Lithuania must assess physical fitness of students (Description of the Procedure..., 2019), however, grades are not given and this may explain the more positive opinions of students about the assessment of physical fitness. However, the question arises as to the scepticism of physical education teachers. Only various assumptions can be made as to why the majority of physical education teachers do not consider it necessary to assess the physical fitness of students. Perhaps this scepticism among teachers is due to the fact that students' testing is mandatory. As other studies have shown, physical education teachers are not always inclined to assess students according to formally defined assessment criteria (Chatzopoulos et al., 2006). It should also be noted that the existing regulations provide not only for testing, but also for assigning students to one of the three zones of physical activity, as well as for informing parents. As O'Keeffe et al. (2021) revealed, data on students' physical fitness may indeed be of interest to students' parents and it is advisable to inform them about that. However, in Lithuania, if a student is placed in a "health risk zone" (which indicates the student's health risk due to his or her level of physical fitness), an individual meeting of the student, parents, teacher and public health professionals must be organized to discuss potential risks to the student. While this is in the best interests of the student, it can also pose additional challenges for teachers, especially when parents have negative attitudes towards physical activity in general and even try to protect their children from it and from PE (Guzauskas, Sukys, 2021). In terms of physical fitness, another interesting result is worth mentioning. Although the documents regulate the compulsory assessment of students' physical fitness, only one in five representatives of the school administration considers that this should be assessed.

The study revealed not only the opinions of respondents what should be assessed, but also what criteria should form the cumulative assessment in PE. The most important grading criteria mentioned were students' progress and achievements, activity in lessons and attendance. It is the activity of students in lessons that has been mentioned as one of the most important assessment criteria in other studies (Matanin, Tannehill, 1994; Borghouts et al., 2017; Redelius, Hay, 2012). However, unlike in our study, physical education teachers are much less likely to use attendance as an assessment criterion (Matanin, Tannehill, 1994; Borghouts et al., 2017). It should be noted that

both physical education teachers and the school administration have the same opinion on attendance and student activity in the lessons as assessment criteria. As class attendance is compulsory for all students, this approach of teachers and administration is somewhat debatable.

Students' activity in the lessons is a very important criterion, as it is the active involvement of students that is important not only to ensure physical activity at school, but also to develop their motor skills and attitudes towards physical activity as well as systematic physical activity habits. However, students are not so sure that their activity should be graded. It can be assumed that such opinions may also be related to the students' low physical activity during PE classes, as illustrated by the recent meta-analysis (Truelove et al., 2020). However, the extent to which this assumption is correct could be revealed by perceptions of students of different activity levels on assessment in the lessons. In addition, the approach to the assessment of students' activity in the lesson may be related to the peculiarities of the lesson organization itself and a clear understanding of the lesson goals.

Only one in five respondents mentioned students' knowledge as an assessment criterion. By the way, it is the students who do not feel that the assessment of their knowledge should be included in the cumulative assessment. Although this seems to contradict some research data that students wanted to be graded on their knowledge in PE (Zhu, 2015), however, other studies may provide greater clarity in trying to explain our results. Studies that have interpreted students' expectations regarding assessment have revealed that students least expect to gain conceptual health/fitness related knowledge (Zhu, 2013). Teachers may not communicate enough what knowledge students need to gain (Aarskog, 2020) and just do not give students opportunities to develop their knowledge (Aggerholm et al., 2018), or they assess knowledge only in relation to certain sports, which calls into question the fairness of the assessment in general (Modell, Gerdin, 2021). As not all students have the same good skills in certain sports, this may also explain why there are significant differences between students and physical education teachers regarding the assessment of students for participation in school competitions. In Lithuania, even 58.1 % of adolescents are not physically active enough (Sukys et al., 2021), thus, when you do not personally exercise or compete, you probably do not want to be graded for that. Similarly, the unfavourable opinion of many parents that students' assessment for participation in school competitions would constitute a cumulative assessment could be explained. However, opinions of school administration are interesting because they, like physical education teachers, argued that the criterion for participation in school competitions should be included into cumulative assessment.

The views of all members of the school community were in favour of the cumulative assessment that includes students' behaviour, although this was not the most important criterion mentioned. Previous research has also found that students' behaviour is not most used grading criterion by physical education teachers (Chatzopoulos et al., 2006; Redelius, Hay, 2012). This attitude may be due to the fact that it may be more difficult to assess behaviour than students' knowledge, motor skills or, finally, attendance. On the other hand, as a variety of positive behaviours can be developed in PE, assessment of these behaviours remains an important pedagogical challenge for teachers and also an interesting issue for research.

In summary, the study revealed interesting views of the school community on student assessment in PE. The main strength of this study was that it was the first study to reveal the attitudes of different members of the school community towards student assessment. However, this has also led to some challenges in commenting on differences of opinions, which can also be identified as a limitation of this study. In particular, the differences between the opinions of physical education teachers and students are easier to explain simply because data from previous studies can be used. However, in order to explain the opinions of teachers of other subjects, administrative staff and parents, it is often possible to make only assumptions. Nevertheless, the results obtained can be considered as a good initial stage for further research, in which it is possible to delve into the differences that emerged in this study in detail. It is worth mentioning several research shortcomings related to the research methodology. Although the main questions were based on a previous study, we believe that it would be better to use a Likert-type scale instead of the possibility to choose the answers. We believe that such a scale would allow to more accurately distinguish the importance of the assessed traits in the groups of research participants. Another limitation related with the study participants. Specifically, only students in grades 9-10 were surveyed in this study. Therefore, it remains not clear to what extent younger and older students may have different views on assessment in PE.

5. Conclusion

This study provided insights into assessment in PE in Lithuania. From the perspective of the study participants, effort and progress should be assessed most in PE following physical fitness, knowledge, and motor skills. The most important criteria for cumulative assessment of students in PE should be students' progress and achievements, activity in classes and attendance, with knowledge being considered the least important criterion. Members of the school community have different views on student assessment. The most significant differences between physical education teachers and students concerning the assessment of students' progress and achievements, knowledge, activity, attendance, and participation in competitions, were identified. At the same time, it is interesting to note that the opinions of physical education teachers and the school administration on student assessment tend to coincide. The study results highlighted the importance of encouraging teachers to more actively communicate learning goals as well as involve students into the evaluation process.

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