

Investigation of Student Engagement in Physical Training Classes at School¹

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Abstract

The paper presents the concept of student engagement in Physical Training classes, which is defined as a set of behavioral and psychological characteristics of students, accompanying their participation in the classes. Ten criteria are emphasized to consider student engagement in such aspects as activity, cognitive, volitional, motivational and evaluative, emotional, social, reflexive background. 119, 644 students aged 16.5 ± 0.7 took part in the study (115, 055 students without special needs in physical education caused by health problems and 4, 589 students with special needs and restrictions in physical activity). The results have shown that, although the students without special needs and those with special needs are significantly different, in general no more than 35.9% respondents attended all the Physical Training classes, only about a half of them are completely satisfied with these classes, and none of them have all the knowledge and skills required by the educational program. Numerous deficiencies in program content, educational environment and teaching methodology hinder student engagement in classes. There is a correlation between satisfaction with classes and the components of student engagement (positive emotional background during the lessons, the attractiveness of the activities performed, the schedule convenience, school sports facilities, etc.). The research revealed factors that influence student engagement and proves that appropriate conditions for Physical Training should be created at school, and activities at the lessons should meet students' interests and abilities.

Keywords: classes; compulsory school; curriculum; educational environment; individual approach; physical training; student engagement.

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Physical Training is an important part of compulsory education in Russia, as well as in many other countries all over the world. During the whole school training course, there are three obligatory Physical Training classes per week. These classes have to enable the student to acquire knowledge and skills in Physical Training and sports, contribute to their harmonious physical development and health improvement. However, they are effective only if the educational process has a relevant conceptual basis and provides the appropriate quality.

Numerous studies show that Physical Education at school does not apply all its potential for children's rehabilitation, healthy life-styles promotion and developing self-organization skills. Recent researches (*Healthcare in Russia, 2015; Milushkina et al, 2016*) conclusively show that today's students have low functional indicators, such as dynamometry of a right hand, indicators of lung capacity, etc. According to the specialists, this is related to a low motor activity. In addition, the official statistics emphasizes a great amount of chronic diseases of Russian citizens aged from

15 to 17 (the secondary school age). Among them there are musculoskeletal system disorders (242.8 per 100, 000 children in 2014), respiratory diseases (2703.3 per 100, 000 children in 2014), obesity (25, 6 per 100, 000 children in 2014), which are related to motion deficiency.

The quality of Physical Education is usually measured by the results of annual tests of body conditions and Physical Training skills (strength, speed, endurance, flexibility indices, etc.). It signifies the normative-based approach: the results are compared with prescribed standards. At the same time, the abovementioned facts indicate that the management of quality of Physical Training classes requires the individual approach, which supports pedagogical and psychological background of educational success of each student.

The pedagogical aspect of quality assessment concerns the educational environment. The classes of Physical Training should be consistent with the state law. The school curriculum is constructed by a teacher on the basic educational program approved by the Ministry of Education of the Russian Federation in accordance with the Federal State Educational Standard (FSES). Training mode, the size of the school sports gym, air-thermal conditions and other conditions of the learning

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environment are regulated by the sanitary-epidemiological requirements. There is a list of recommended textbooks, as well as the list of sports equipment for indoor and outdoor activities. Teacher professional skills requirements and the items of his/her job are prescribed by the Professional Standard of Teacher and Qualification requirements of educators. However, in some schools the funding and other factors do not allow to fulfill the requirements for the educational environment and teachers' qualification. Besides, even if the requirements are fulfilled, the teachers' orientation on students' individual development plays a great role.

The psychological aspect of quality assessment should reveal the personality competences growth and the amount of personal resources wasted during learning by each student. Moreover, the assessment should give the objective information about the individual characteristics of students (such as interests, learning background, abilities, etc.) as a system trend.

In this study the concept of student engagement in Physical Training classes, which encompasses the pedagogical and psychological basis of success in physical exercise and sports, has been proposed to contribute to Physical Training classes quality assessment. The general concept of student engagement is considered as a complex of behavioral, cognitive and emotional components in the structure of student involvement and some individual isolated social component (Fredericks et al., 2011). The concept of student engagement in Physical Training classes does not have a

comprehensive definition. Physical Training engagement is regarded mainly in relation to motivation to amateur or professional sports in adults and children: it embraces emotions in the classroom, effort investment, communication at training and other aspects of so called "sport commitment" (Scanlan et al, 1993; Weiss, 2000). In some studies of student involvement in Physical Training classes (Aelterman et al., 2011) only psychological aspects of engagement are considered. However, it is evident that student satisfaction and progress in Physical Education at school is also associated with methodological factors (a combination of physical exercises, games and competitive activities and theoretical activities; variability of tasks; complete and accessible explanation of the material; individual approach; the use of information technologies); consideration of health, age and gender characteristics, interests and personal motives; positive emotional background (Avramova, 2015; Bailiff et al, 2014; Futorny 2011; Nagovitsyn, 2011; Shevtsov, 2014).

Within the study, the concept of student engagement is defined as a set of behavioral and psychological characteristics of students accompanying their participation in the classes. The review of scientific and methodological publications, national regulative documents enables to define ten criteria of student engagement, which are emphasized in such aspects as activity, cognitive, volitional, motivational and evaluative, emotional, social, reflexive background (Table 1).

Table 1.
Criteria of student engagement to Physical Training classes

Nº	Criterion	Criterion content
	The actual activity in the classroom	The variable student activities which take place in the classroom
	The effort which is applied by a student in the classroom	The level of student activity in the classroom; mental and physical effort, energy and time exerted by a student to perform learning tasks
	The internal need to attend classes	Motivation of students to attend classes; recognition and acceptance of their importance in the context of the valuable relation to Physical Training
	Emotional involvement in activities	Emotions that students have during the classes
	Satisfaction with the content of the program	The attitude to the content of the course, particular topics of the curriculum
	Satisfaction with the organizational and pedagogical conditions of learning	The attitude to the methods, means and forms of education which are used by the teacher in the classroom
	Satisfaction with the educational environment	The attitude to the conditions in which classes are held and their mode
	Social inclusion in the class	Interaction of students with their peers and teachers in the classroom; acquisition of social competence
	Objective learning outcomes	Quantitative and qualitative indicators of the students' development and reaching their learning goals (such as marks for Physical Training classes, the number of missed classes and the reasons for missing)
	Subjective assessment of learning effectiveness	Subjective students' perception of their achieved results, which are prescribed by the curriculum

Method

Participants

The research is the All-Russian project funded by the federal authorities, thus the sample was designed according to their requirements. It consisted of the 10th and the 11th grade students (secondary school level). A proportional stratified sample was drawn. 30% urban schools and 30% rural schools from each of 85 regions of the Russian Federation were selected. A total number of 8,788 schools participated in the survey. One group (class) of students from each grade was selected in each school.

115,055 students engaged in Physical Training classes without any serious restrictions or limitations caused by health problems participated in the survey (65,676 girls and 49,379 boys). Among them there are 101,724 participants (88.41%) who are engaged without any limitations: they do all exercises, take part in competitions, perform all the tests. There are also 11,876 participants (10.32%) who have minor restrictions: they are allowed to choose the intensity of gross motor activity; they do not participate in competitions or do it only after the medical checkup. There are 1,455 participants who have classes separately from the main part of the group in special program aimed to correct their health problems. Besides, 4,589 students engaged in Physical Training classes with serious limitation and restrictions in gross motor activities participated in the survey. They are not allowed to have gross motor activities at classes and they solve only theoretical tasks. They usually have the status "student with health limitations" or "student with disabilities" at school. In the article the first group is called "respondents/students without special needs", the second one – "respondents/students with special needs". "Needs" means educational needs, particular conditions, methods, ways of mastering of content, etc. Respondents age is 16.5 ± 0.7 years.

Measures

The questionnaire was designed based on the criteria of student engagement in Physical Training classes. It is described in detail in the previous papers (Osokina, Le-van, 2016). The questionnaire includes 24 questions for students without special needs and 19 questions for students with special needs. It does not require any personal information except age, region and the limitations of class activities if any.

Procedure

The students filled in the questionnaire at school under the guidance of their teacher either online on the website (<http://fizkult.imbp-rudn.ru>) or on paper depending on computer facilities available.

Data analysis

Methods of descriptive statistics were used in the survey results processing. The proportion of respondents who chose

a particular answer to each question was identified. Point estimates were obtained for each item which characterizes student engagement. Then the corresponding confidence intervals with $\alpha = 0.05$ were calculated. Moreover, a correlation analysis between the index of satisfaction with classes and the components of student engagement shown in the Table 1 was carried out. To check hypothesis (the probability of error - Pval), Chi-square test sample homogeneity (sameness distributions) was applied.

Results

35.9% respondents without special needs and 31.6% respondents with special needs attend all Physical Training classes. Most of the lessons are passed only by 4.3% students of the first group and 30.4% students of the second group. The satisfaction with Physical Training classes differs much: the estimation of 5 points (from 5 possible) is given by 55.2% respondents without special needs and 49.2% respondents with special needs. However, the number of students with special needs who are not satisfied at all (1 point from 5) is four times higher than the number of those without special needs (10.1% vs. 2.5%).

The most common activities in the classroom which are performed by the respondents without special needs are physical exercises (96.7%), gross motor and sports games (95.9%), and different sorts of competitions (92.3%). Teacher explanation of material is obtained by 80.1% respondents. Many other activities, such as computer tasks (23.9%), the study of additional literature and visual aids (28.7%), and sessions on textbooks and workbooks (29.8%), are rarely performed in the classroom. Some theoretical classes are held by 59.4% respondents. A certain percentage of respondents without special needs are not satisfied with each of the activities (from 10.8% for gross motor and sports games to 77.2% for textbook tasks). At the same time 84.9% respondents are interested in body-builders, 87.5% – in sports according to their preferences, 66% – in self-estimation of their health and body state, 48.3% – in watching educational movies and presentations, although significantly fewer respondents obtain such activities at classes.

The activity of students with special needs differs much: the most common is explanation of the material (70.6%) and self-preparation of essays (54.3%). Respondents rarer perform computer tasks (23.9%), watch movies and presentations on the topics of the program (28.9%) and study additional literature and visual aids (29.5%). Some respondents declare that they play table tennis at classes, but in general non-motor sports are rarely implemented for these students. More than a quarter of respondents are not satisfied by the proposed activities. At the same time, the less widespread activities are of greater interest for the student (62.8% are interested in self-estimation of the body and health state, 58.5% – in movies and presentations, 55.2% – in non-motor sports such as chess, checkers, etc.). Overall, only 43.4% students with special needs

are engaged in theoretical activities, and 12.3% help their teacher in organization of the educational process. 50.8% respondents always or occasionally are present in the gym and have nothing to do.

As for the sports, the majority of the students without special needs perform volleyball and gymnastics with the basics of acrobatics (over 95% answers), basketball (92%), athletics (85.5%), football (77.5%). However, not all respondents are satisfied with the sports proposed. The least common are hockey (17.5%) and swimming (18.8%). Some respondents practice bat, pioneer ball, floor ball, street ball, rugby, weightlifting, sports tourism. More than 60% students are interested in table tennis, shooting, swimming, orienteering, badminton, but these sports are not performed. The national sports and outdoor games, aerobics, martial arts and others also attract students.

The students with special needs commonly study the theory of volleyball, athletics, basketball, gymnastics with the basics of acrobatics, football (from 72.6% to 83.8%), but a great number of them are not satisfied with these sports and consider the theory of bat, pioneer ball, floorball, street ball, weightlifting, gymnastics, bobsleigh, biathlon, cycling, tennis, fencing, curling, cricket to be more attractive.

The intensity of motor activity at classes is optimal for 77.7% respondents without any limitations caused by health problems, for 65.7% those who have classes with their peers but with some restrictions, and for 55.6% students who are trained in separate groups according to their health. 11%, 7.5% and 19.5% respondents respectively consider their motor activity as insufficient; 11.3%, 26.8% and 24.9% – as excessive. At the same time, 2%, 8.2% and 10.7% respondents respectively can not cope with the motor tasks. Next day after Physical Training classes 74.6% students who train without limitations, 55.8% involved in training with some limits and 58.8% involved in the separate groups fill wellbeing. Other respondents have muscular pain and feel unwell.

As for emotional involvement into activities, no more than 56.5% respondents without special needs experience positive emotions (joy, satisfaction, interest) at classes. The most common negative emotions are anger (8.6%) and disappointment (8%). Indifference, boredom, lack of emotion, irritation, sadness, disappointment are also mentioned by the respondents. Among positive emotions excitement and passion are added. For the students with special needs frustration as negative emotion is most common (14.8%). Positive emotions have no more than 35% these respondents (these emotions are interest and fun).

The most common motives to attend classes for students without special needs are optimization of their motor mode (61.1%), developing of physical conditions and health promotion (just over 50%); acquisition of useful life skills and obtaining positive emotions, physical improvement was chosen by 38.2% to 44.1% respondents. Self-development, pleasure of training and communication were mentioned by 18.2% to 25.6% respondents.

The factors hindering the students to be involved in the activities are as follows. Most respondents mentioned the need to visit other difficult classes after Physical Training (30.2%), lack of convenient locker room at the gym (29.1%), and fatigue after the other classes (28%). The conditions in which classes are held also have significant negative influence (the lack of sports hall area, the lack of or poor state of equipment, and uncomfortable air-thermal regime in the gym). Besides, 12.9% respondents said they experience difficulties in performing tasks due to health problems. The quantity and quality of school sports facilities was not completely satisfactory for 69.3% respondents. The gyms do not always have regular cleaning. According to some respondents, their teachers are not competent enough. Several respondents drew attention to the unacceptable behavior of teachers (the use of swear words, shouting at students, carping of those who cannot do some activities). In addition, the students of the 11th grade said that they need to prepare for their final exams that is why they do not attend Physical Training classes. However, 21.9% respondents admitted that they were too lazy to attend classes.

Among of the students with special needs 78.5% mentioned the factors that prevent them from engaging into performing theoretical tasks at Physical Training classes. The most common negative factor is laziness (57.6%) which can indicate low motivation. 28.1% respondents chose fatigue after other occupations and 21.5% – health problems. In addition, for some respondents it is difficult to focus on the theoretical tasks while being in the gym.

As for the content of program and characteristics of the educational environment, the most significant deficiencies are inability to select activities according to their preferences (31.9%), lack of modern sports facilities (31.3%), well-equipped sports playgrounds (30.2%) and interesting sports and games (29%). The respondents without special needs would like to go to the gym, swimming pool and ice rink, as well as to be engaged in shooting. There is also a desire to develop modern fitness trends (e.g., stretching, yoga, street workout, dances and others). As for theoretical activities, the respondents would like to get acquainted with eSports. In addition, the respondents indicated that they would be interested in discussing of sports news, watching sports matches and competitions, getting information about famous athletes, country and world-wide sporting events (Olympics, World and European championships and others).

Subjective assessment of the results achieved at classes shows that not all the respondents fully achieve knowledge and skills required by FSES. For example, 64.4% respondents do not know basic concepts and history of physical culture and sports. 16.9% respondents without special needs and 24.1% respondents with special needs do not know basic principles of healthy lifestyles, 29.2% and 36.7% respectively – diseases prevention means, 11.6% and 25.2% respectively – the morning exercises, 26.2% and 36.0% respectively – the approaches to organize their own physical

activity. A noticeable amount of students without special needs do not have sufficient knowledge in the technique of exercisers (17.7%), the compilation of the complexes of exercisers (23.8%), etc. Besides, many practical skills are not formed: for example, 23.8% respondents without special needs and 43.8% respondents with special needs are unable to construct the own complexes of the exercises, although it is required by FSES. At the same time, 74.3% respondents without special needs and 51% students with special needs have the “excellent” mark at the end of the previous term.

In general, physical activity and sports are considered as a vital part of a human's life by 84.5% students without special needs and 69.4% respondents with special needs. 74.9% students with special needs also believe that Physical Training can help them cope with their disease or reduce it.

Nevertheless, 21.6% students without special needs and 35.6% with special needs miss Physical Training classes without a good reason. If the Physical Training classes would be optional, only about 48% respondents of both groups would attend them if they have time. 43.8% students without special needs and only 16.5% those with special needs always desire to be present at classes. As for other activities related to Physical Training and sports, 55% respondents without special needs and 20.8% those with special needs take part in school sports competitions and other public sports events at school with pleasure. 23.6% and 63.6% respectively avoid involvement in these activities.

To investigate the real needs of students in motor activity they were asked about their extracurricular training. 83.6% respondents who can have motor activity at classes attend sports clubs and groups after classes, most of them prefer self-training. It is paradoxical that 56.5% respondents with special needs who do not have motor activity at classes attend extra training groups. The least of them do it in medical organizations where they have physiotherapy which is not available at school. The others either have self-training in according to the medical recommendations or ignore the restrictions in gross motor activity (their parents know about it and support this choice).

The correlation analysis between the index of satisfaction with classes and the components of student engagement revealed that the level of student satisfaction with Physical Training classes is linked with the emotions which students have during the lessons (the correlation coefficient is equal to 0.39, and it's the highest correlation among all the components of student engagement towards the index of satisfaction) and with the number of factors that hinder to be engaged in classes (the correlation coefficient is equal to 0.38). The similar correlation is between the index of satisfaction and the skills that students train during their lessons. The strongest correlation concerns training the skill to take care of their physical development (the correlation coefficient is equal to 0.37), to monitor their performance and prevent fatigue and strain (the correlation coefficient is equal to 0.36), to do

the exercises correctly (the correlation coefficient is equal to 0.36), to compose complexes of exercises and to select an individual physical mode (the correlation coefficient is equal to 0.33), to play motor and sports games (the correlation coefficient is equal to 0.33). The strongest correlation is between the index of satisfaction with the classes and the index of satisfaction with the quantity and quality of school sports facilities (such as the gymnasium, sports grounds, etc.) – the correlation coefficient is equal to 0.45. Satisfaction with the classes is also strongly related to students' attitude to Physical Training as an important school discipline (the correlation coefficient is equal to 0.47). All other components of student engagement have weaker correlation or do not have it at all.

As a result of calculation of confidence intervals, all sampled values deviate from the predicted values for the total population of the 10th-11th classes students of not more than 1%. For example, the index of satisfaction with classes has meanings: 1, 2, 3, 4, 5. The proportion of respondents who chose “1” is 2.5% (the confidence interval is from 2.4% to 2.6%); who chose “2” – 2.6% (the confidence interval is from 2.5% to 2.7%); who chose “3” – 10.6% (the confidence interval is from 10.4% to 10.8%); who chose “4” – 29.1% (the confidence interval is from 28.8% to 29.4%); who chose “5” – 55.2% (the confidence interval is from 54.9% to 55.5%).

Application of Chi-square test of homogeneity of samples showed that the results in the group of respondents without special needs and the group of respondents with special are significantly different, the differences in the distributions are significant at the 0.05 level. The error of probability of the differences (Pval) is negligible.

Discussions

In general, Physical Training classes are focused on motor-active tasks and oral explanation in the course of physical exercises. Theoretical activity is performed much less often. It follows that a significant number of students do not have enough theoretical competence to be good at variety of sports, to discuss sport news, to understand the rules of Olympic Games or follow healthy lifestyle according to Physical Training principals.

There are some attractive activities which are rarely held in the classroom, such as self-estimation of health and body conditions, or sports according to the preferences, or using body-builders. If these activities are included into classes, Physical Training at school will be more popular and more students can be engaged – even students with special educational needs. Activities, which are the most common, are not attractive enough for the respondents. On the opposite, there are some sports, such as swimming and body-building, which might engage students to the classes, but there is a lack of equipment for them at schools. It reveals the necessity of modernization of the curriculum content and equipment for different activities.

Physical Training classes should have visual support of exercises, sports, etc. It can make the training process more accurate. Besides, the amount of motor activity should be based on individual physical abilities of the students.

For students who are prohibited from having gross motor activity, there is a variety of activities which are rarely performed, but they can increase student engagement, such as helping teachers in the organization of educational process, eSports, discussion of sports news, watching sports matches and competitions, getting information about famous athletes. There should be safe and comfortable classrooms and additional teachers or tutors who can help students with special needs to master the program in theoretical tasks with interest and a high success rate.

The correlation analysis between the index of satisfaction with classes and the components of student engagement highlighted the factors which should be primarily under scrutiny. Some of them are in the area of teacher's competence, such as positive emotional background during the lessons, the emphasis on the development of life skills which attract students more. Some of the factors concern school management, such as the quantity and quality of school sports facilities, the schedule convenience or the shower and lockers next to the gym. As for the importance of Physical Training as a school discipline, it is the federal and municipal policy. It should be a matter of community agreement, and should be followed up with all the participants of the educational process (teachers, manager staff, parents and students themselves).

The student engagement is directly connected with their personal need to attend the classes. If Physical Training classes are not very interesting and evoke negative

emotion, the students desire to miss classes or even do it without permission. A small amount of answers, which indicates the personal need to attend Physical Training classes, is in contradiction with a great amount of answers about extracurricular gross motor activity and the opinion about vital necessity of Physical Training. It reveals that the students do not consider Physical Training classes, as they are nowadays, as the way to acquire necessary motor skills and knowledge about sports. It reduces the potential of school education in developing useful social practices for a future successful and healthy life.

In sum, the study revealed some important factors that influence student engagement into Physical Training classes. Confident intervals show that the results are valid for the general population and can be used as a basis for the system management of quality of Physical Training education at compulsory school. The results support the individual approach in Physical Training classes quality management. Furthermore, the study proves that sociological surveys should precede the curriculum design as one of the sources of information about state, social and personal demands, such as healthy and safe lifestyle, human capital development, and individual and professional success. It may help to share the responsibility for the quality of education between teachers, parents and students themselves (*The concept of the Federal State Educational Standard of the comprehensive school, 2008: 30*) and to bring Physical Education process at school in compliance with their needs. The results may serve as an empirical background for a new Conception of Physical Education in compulsory school.

Исследование вовлеченности учащихся в уроки физической культуры в школе

Резюме

В статье представлена концепция вовлеченности школьников в занятиях физической культурой, которая определяется как набор поведенческих и психологических характеристик учащихся, сопровождающих их участие в занятиях. Выделено десять критериев для рассмотрения вовлеченности школьников, такие как активность, когнитивный, волевой, мотивационный и оценочный, эмоциональный, социальный, рефлексивный фон. Эти критерии составляют основу опроса российских школьников. В исследовании участвовало 119, 644 учащихся в возрасте $16,5 \pm 0,7$ (115 055 школьников без особых потребностей в физическом воспитании, вызванных проблемами со здоровьем, и 4 589 школьников с особыми потребностями и ограничениями в физической активности). Результаты показали, что, учащиеся, не имеющие особых потребностей, и те, у кого особые потребности, существенно не отличаются, так, не более 35,9 % респондентов регулярно посещают занятия по физическому культуре, только половина из них полностью удовлетворена этими уроками и никто не обладает всеми знаниями и навыками, предусмотренными образовательной программой. Многочисленные недостатки в содержании программы, учебной среде и методологии обучения препятствуют вовлечению учащихся в занятия физической культурой. Выявлена корреляция между удовлетворенностью и компонентами вовлеченности учащихся в занятия, такие как положительный эмоциональный фон во время уроков, привлекательность проводимых мероприятий, удобство расписания, спортивные объекты для занятий спортом и т.д. Исследование способствует развитию личности в системе управления качеством занятий по физическому воспитанию в школе, основанной на психологическом и педагогическом успехе занятий по физической культуре и спорту.

Ключевые слова: уроки физической культуры; личностный подход к управлению системой; вовлеченность в уроки физической культуры.

Estudio de la participación de los alumnos en las clases de educación física en la escuela.

Resumen

El documento presenta el concepto de participación de los estudiantes en las clases de Entrenamiento físico, que se define como un conjunto de características conductuales y psicológicas de los estudiantes, que acompañan su participación en las clases. Se enfatizan diez criterios para considerar la participación del estudiante en aspectos tales como actividad, antecedentes cognitivos, volitivos, motivacionales y evaluativos, emocionales, sociales y reflexivos. 119, 644 estudiantes de 16.5 ± 0.7 participaron en el estudio (115, 055 estudiantes sin necesidades especiales en educación física causadas por problemas de salud y 4, 589 estudiantes con necesidades especiales y restricciones en la actividad física). Los resultados han demostrado que, aunque los estudiantes sin necesidades especiales y aquellos con necesidades especiales son significativamente diferentes, en general no más del 35.9% de los encuestados asistieron a todas las clases de Entrenamiento físico, solo aproximadamente la mitad de ellos están completamente satisfechos con estas clases, y ninguno de ellos tiene todos los conocimientos y habilidades requeridos por el programa educativo. Numerosas deficiencias en el contenido del programa, el ambiente educativo y la metodología de enseñanza dificultan la participación de los estudiantes en las clases. Existe una correlación entre la satisfacción con las clases y los componentes del compromiso del estudiante (antecedentes emocionales positivos durante las lecciones, el atractivo de las actividades realizadas, la conveniencia del horario, las instalaciones deportivas escolares, etc.). La investigación reveló factores que influyen en la participación de los estudiantes y demuestra que las condiciones apropiadas para el Entrenamiento Físico deben crearse en la escuela, y las actividades en las lecciones deben satisfacer los intereses y habilidades de los estudiantes.

Palabras clave: clases; enseñanza obligatoria; plan de estudios; ambiente educacional; enfoque individual; entrenamiento físico; participación de los estudiantes.

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