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**APPLICATION OF DIGITALIZATION IN CHILDREN'S SPORTS  
TRAINING**

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**Abstract**

Based on the definition of the concept of "schoolchildren success in the process of sports training" the author identified and proposed six components of success in the process of sports training: physiological, cognitive, moral, technical-tactical, psychological and evaluatively effective. These components in general characterize the main directions in the formation of the success of schoolchildren in the process of sports training. The article suggests that the concept of "schoolchildren's success in the process of sports training" is integrative, including interrelated and correlated components. The authors propose to improve the indicators of the above components of sports training through the system of interaction between the trainer-child-parent, using digital technologies. In addition to the issues studied, the authors propose to discuss social, pedagogical, legal problems in the system of family education and upbringing in the process of sports training in the system of additional education (discussions, group work, game techniques, social projects, etc.); increasing parental literacy in education (pedagogical and psychological forums and workshops, consultations of specialists at the request of parents, etc.). In conclusion, the authors concluded that digital technologies will certainly not be able to replace a trainer, therefore they must be used in conjunction with other available methodological tools. Skillful use of information technologies in the training process not only increases their efficiency, but also helps to increase the cognitive needs of those involved.

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## 1. Introduction

In the institutions of additional education in Russia, there are tremendous opportunities for the formation of the success of children of any age, for the implementation of their abilities in various fields of activity. In the system of additional education, sports schools of the Olympic reserve act as educational institutions where children can show their abilities, their character, and realize their self-esteem. Consequently, sports activity is one of the main means of forming a child's successful personality. In addition, sport has always been the key to successful socialization in a particular society (Brickman et al., 2007). Therefore, with the correct construction of the process of sports training, it can become a very effective means of forming the success of a child's personality. It is obvious that parental involvement has an impact not only on the athletic performance of schoolchildren, but also on their sense of their own success. Parental expectations about their children are of great importance (Shiryaev, 2018).

Parents do not always want to be involved in their child's sports activities. Especially this decline is clearly manifested at the time of the onset of adolescence in schoolchildren and with low sports performance of the student. Therefore, from the point of view of the authors, it is necessary to involve parents in sports activities in order to form success in schoolchildren. But raising parenting interest is not easy. A quantitative increase in parenting meetings will not contribute to the planned result. In addition, parents who constantly miss planned parenting meetings also very rarely come to other events, such as: competitions, sports events, etc.

However, it has been proven that the more parents are interested in any types of activities of their children (study, sports, music, etc.), the more successful the children themselves will be in this area. It follows that the influence of the schoolchildren's family on their success is of great importance. Most parents are not interested in and do not want to be involved in their child's sports activities, such as in his educational activities. They show even less interest when a schoolchild reaches adolescence, and given the low sports results, the involvement of parents falls to almost zero. The organization of a strong and friendly parenting collective helps to increase their interest in the sports activities of their children and activates their participation in the sports life of schoolchildren. With close interaction between parents, coach and schoolchildren, a more cohesive team emerges, where everyone can offer their help to another, which makes it easier to solve the problems of schoolchildren's sports activity, which contributes to the formation of success in the process of sports training. Based on the above, the authors talk about the need to work with parents to involve them in the process of sports training in order to form the success of schoolchildren. The main tasks of the trainer in working with parents are to increase the cohesion of the parent team and increase the parents' interest in the child's sports life. However, it should be said that interacting with the family in order to support the child's desire to achieve success will only make sense when the family itself trusts the coach and has a positive attitude towards his work, as well as to the whole sport in general. Often, the interaction in the trainer-child-parent system in the form of live communication is hampered by the very high level of employment of the latter. In other words, they are simply limited in time to receive more detailed information about the level of athletic performance of their child. Therefore, it becomes necessary to develop a number of means of interaction with parents using digital technologies and multimedia support, because with a clear understanding of the requirements and training system in the sports section by the parents, it will be easier for them to influence the child in terms of his sports activity.

## 2. Problem Statement

We agree with the opinion of many scientists who understand the success of schoolchildren as: successfully formed and continuously improving sportsmanship of a student in the process of sports training, supported by a positive-adequate self-esteem, accompanied by a sufficient level of motivation and a positive emotional state, as well as an adequate social environment of the student, that in the aggregate, it assumes the achievement of a positive sports result by the trainee (Brickman et al., 2018; Voronin, 2019).

Let's highlight the main components of the success of schoolchildren-athletes: physiological, cognitive, technical and tactical, psychological, moral, evaluative and productive. All of the above components in general terms characterize the main directions in the formation of the success of schoolchildren in the process of sports training, which have independent characteristics: technical, tactical, physical, psychological.

Based on the content of a certain component, the coach forms specific tasks aimed at improving the sportsmanship of schoolchildren and achieving their success. From the point of view of a number of modern teachers in schoolchildren the formation of personality depends, first of all, on the social environment, on the influence of adults around the child (Brickman et al., 2007; Shiryayev, 2018; Voronin, 2019). In addition, a huge number of researchers speaks about the relationship between the success of training and evaluative actions of coaches and practitioners: the motivation of a student who does not cope with the tasks assigned to him in the process of playing sports will be at a low level, and his confidence in his abilities will also drop. Therefore, a trainer (teacher) must arouse and then maintain a cognitive interest not only in mastering physical or technical actions, but also in the entire process of sports training in general. As a result, all the contradictions between the coach and the students caused by the organization of the educational and training process will be eliminated. And the correct organization of this process encourages athletes to conscientiously perform tasks (Shiryayev, 2018). It is also impossible not to say about one important factor influencing the feeling of success in sports activity, about the impact on the student of his family. Thanks to the family, the most comfortable conditions for the life and upbringing of the child are formed, and the feeling of belonging to the family is very important for the mental, intellectual, moral development of the individual. Children often become less motivated precisely in those families in which there are conflicts and serious disagreements, as a result of which schoolchildren do not receive the necessary support, which leads to a decrease in motivation and the emergence of various kinds of problems and, as a consequence, the impossibility of full disclosure of their potential in sports activities (Brickman et al., 2007). Moreover, based on the views of modern educators and scientists, who assert the great influence of the family on the success of schoolchildren in the learning process, it can be assumed that the family has the same influence on the formation of success in the process of sports training. The only prerequisite is the involvement of the student's parents in his process of sports training and the constant interaction of the coach with them. But the coach also needs to attach importance to the fact that schoolchildren's priorities change with age: the authority of their peers among them increases, and the opinion of parents, on the contrary, may not be taken seriously.

### 3. Research Questions

The introduction of information technology in the relationship "trainer-child-parent" can solve a variety of tasks:

- demonstration of illustrative material both in statics and in dynamics;
- comparison of the characteristics of the student's success in a certain period;
- storage in the form of a data bank of video materials of competitions, training planning documentation, competition protocols, methodological recommendations, etc.;
- control, accounting and analysis of the dynamics of the physical development of athletes;
- modeling of the pedagogical process in the "trainer-child-parent" link.

Today, these tasks are being simplified due to the development of information technology and multimedia support. For example, it is possible to organize interaction between parents and coaches using various social networks (VKontakte, facebook, etc.) and messengers (whatsapp, viber). At the moment, any coach who has a smartphone with Internet access has a joint parental chat, where general information about training sessions, participating in competitions, open training sessions for parents, etc. is dropped off. If the situation requires more "live" communication with the parent, then you can use video calls or applications such as Zoom, Skype, Discord. Thanks to which the coach can not only talk about the child's problems and mistakes in the classroom and the tasks assigned to him, but express all this in a more emotional form, which in turn increases the parents' interest in the training process and expands their role in the schoolchild's sports training (Rothermel, 2020).

In addition, you can also broadcast live online training sessions for those parents who, for one reason or another, could not attend the open classes. This can be done through applications such as Instagram. General information about the activities of the sports club, information about coaches, achievements, leading athletes, contacts, etc. parents can find out from the site or, in the absence of such, from the group community in the above social networks (Aleksina et al., 2020). For a more detailed analysis of the student's sports training, the coach can point out his mistakes to each parent and explain individually what is required at each stage of performing a technical action using personal communication in instant messengers. Such actions contribute to the implementation of a number of principles of the process of sports training: differentiability, individualization and educational reflection. And for a more successful analysis, a parent and his child can be helped by certain mobile applications installed on gadgets, which can also be attributed to multimedia support. So, for example, using the Hudl Technique or OnForm: Video Analysis App, they can analyze the techniques performed by the student with the same techniques performed by professional athletes by uploading two videos (one with their own technique, the other with the professional technique) and simultaneously watching these videos with stops and highlighting their shortcomings (Prendville, 2018). There are also a number of download applications that present training videos on how to perform techniques for different sports (BJJ Dummy Notebook, Thai boxing for you, etc.) (Amhag et al., 2019), that the coach can recommend to parents for watching and analyzing these techniques together with their children. receptions. In addition, many training videos are posted on the YouTube video hosting, for which the coach will only need to send a link to the parents.

#### **4. Purpose of the Study**

The purpose of our study is to study the formation of a holistic view of the implementation of innovative digital technologies in the interaction "trainer-child-parent" in order to increase the "performance" indicator in the chosen sport and success in the team of a sports school. The objectives of our research are:

- to study the scientific literature on determining the directions of success of schoolchildren in the process of sports training in a separate sports school Samara;
- to identify and use the following components of success in the educational and training process of a sports school: physiological, cognitive, moral, technical and tactical, psychological and evaluatively effective;
- analyze the impact of the relationship "coach-athlete-parent" through the use of innovative digital technologies on the success of those involved in the chosen sport.

#### **5. Research Methods**

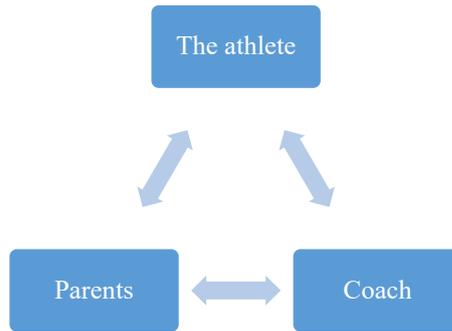
In our study, the following methods were used: study and analysis of scientific and methodological literature on the research problem, content analysis, qualimetry, standardized observation (Aleksina, 2019). In addition, we used the method of questioning the parents of children-athletes involved in sports and volleyball sections, in which 75 respondents participated.

The main questions were:

1. I always use information digital technologies that trainers offer in full.
2. Sometimes I use information technologies offered by trainers.
3. I never use information technology, because I don't have enough time.
4. An analysis of modern studies allowed us to conclude that there is a positive correlation between parents and a coach, who worry about the success of their children, prefer to regularly attend competitions and constantly get in touch with the teacher. In addition, parents help their children learn techniques better by watching the competition together, using collaborative analysis.

#### **6. Findings**

As you know, the interpersonal relationship between parent, coach and athlete is often called the "sports triangle" or "relationship triangle" (Minuchin & Fishman, 1981). The model is based on two theoretical concepts taken from the theory of family systems psychology, namely the concept of boundaries and triangulation (Figure 1).



**Figure 1.** Relationship triangle in children's sports

Source: authors.

Coaches and parents should build their roles, expectations and requirements without allowing dominance over the athlete, always take into account his intentions. Otherwise, a professional model of relationships appears, which leads, on the one hand, to the highest athletic performance, but on the other hand, you can easily lose sight of the needs and interests of a young athlete. Therefore, the coach should always remember this triangle, and if he strives to make the child successful (Williamson et al., 2020). In the process of such interaction between a student and his parents, a positive emotional attitude is formed, relationships in the family, sports team, classroom, in the yard improve, which also greatly affects the formation of the success of sports training. Based on the results of the survey, the following results were obtained (Table 1).

**Table 1.** Results of questioning parents on the use of innovative digital technologies, in order to increase the success of schoolchildren in the process of sports training

Groups	Always using information digital technologies that trainers offer in full	Rare using information technologies offered by trainers	Never using information technology, because there is not enough time and there is no appropriate equipment
Athletics section	80%	15%	5 %
Volleyball section	76 %	20%	4 %

Source: authors.

The use of innovative digital technologies in order to increase the success of young athletes in the process of sports training directly depends on the conscious attitude of parents to the recommendations and tasks of the coach. From the Table we can see that 75-80% of parents follow all the trainer's recommendations and actively use the various digitalization tools listed above. Parents regularly supervise their children, and children try to complete all the tasks that the coach gives them. 15-20% of parents do not regularly use information technology to increase the success of their children, referring to constant employment. And only about 5% of parents who do not try to somehow influence the performance and success of their children, referring to the inability and lack of special equipment. By the way, such parents rarely come to parent meetings and competitions.

## 7. Conclusion

Analyzing the above information, it is necessary to say about the need to deeper implement the practice of interaction between parents and their children and the coach. In this practice, in addition to the investigated issues affecting the sports life of a teenage schoolchild and improving his results, one should carry out:

- discussion of social, pedagogical, legal problems in the system of family education;
- education in the process of sports training in the system of additional education (discussions, group work, game techniques, social projects, etc.);
- improving parental literacy in education issues (pedagogical and psychological forums and workshops, consultations of specialists at the request of parents using electronic technologies, etc.).

Analyzing the work of the relationship "trainer-child-parent" in the information digital space, a positive result should be noted. Namely,

- there is absolute accessibility and openness to all participants in the training process;
- active interest of both children and parents;
- promotes better development of new information digital technologies by parents, and the possibility of their use in other spheres of life.

Thus, the use of digital technologies in the system of interaction "trainer-child-parent" can be used both as a means of the success of sports training of athletes in sports institutions, and as a means of increasing mental activity, contributing to the rapid assimilation of new material (Ashmarina et al., 2020; Saveleva et al., 2015) . And the joint acquisition of knowledge and motor skills will become more intense and diverse.

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