Implementation of the principle of consciousness and activity in the process of training young sambo wrestlers as the embodiment of harmony between body and spirit

Implementación del principio de conciencia y actividad en el proceso de formación de jóvenes luchadores de sambo como encarnación de la armonía entre el cuerpo y el espíritu


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Abstract. The article is dedicated to examining the All-Russian project “Sambo to School”, which aims at not only improving children’s physical characteristics and mastery of sports but also developing their spiritual and moral qualities and bringing harmony between the body and the spirit. The purpose of the present study is to determine the psychological and pedagogical conditions for the implementation of the principle of consciousness and activity in the process of training young sambo wrestlers training as part of the third physical education lesson at school. A pedagogical experiment is conducted on the basis of the Municipal secondary school № 6 of Khabarovsk (Russia) as part of the additional physical education lesson and sambo lessons. As a result of the work, psychological and pedagogical conditions for the implementation of the principle of consciousness and activity in the activities of primary school children are investigated, developed, and implemented. The article presents an analysis of psychological and pedagogical conditions for the realization of the principle of consciousness and activity among children starting to do sambo. Summarization of the obtained experimental data is conducted as a result of the development and application of a method for realizing the principle of consciousness and activity in primary school students’ training in sambo techniques. The results of the study showed the positive impact of practicing a conscious approach to training process and daily duties, which indicates the effectiveness of the proposed influences for harmonizing the students’ personalities and their spiritual and moral development.

Keywords: pedagogical principles, consciousness, activity, sambo, psychological and pedagogical conditions.

Resumen. El artículo está dedicado a examinar el proyecto de toda Rusia “Sambo to School”, que tiene como objetivo no solo mejorar las características físicas y el dominio de los deportes de los niños, sino también desarrollar sus cualidades espirituales y morales y lograr la armonía entre el cuerpo y el espíritu. El propósito del presente estudio es determinar las condiciones psicológicas y pedagógicas para la implementación del principio de conciencia y actividad en el proceso de formación de jóvenes luchadores de sambo como parte de la tercera lección de educación física en la escuela. Se lleva a cabo un experimento pedagógico sobre la base de la escuela secundaria municipal № 6 de Khabarovsk (Rusia) como parte de la lección adicional de educación física y lecciones de sambo. Como resultado del trabajo, se investigan, desarrollan e implementan las condiciones psicológicas y pedagógicas para la implementación del principio de conciencia y actividad en las actividades de los niños de la escuela primaria. El artículo presenta un análisis de las condiciones psicológicas y pedagógicas para la realización del principio de conciencia y actividad entre los niños que comienzan a hacer sambo. El resumen de los datos experimentales obtenidos se lleva a cabo como resultado del desarrollo y la aplicación de un método para realizar el principio de conciencia y actividad en la formación de estudiantes de primaria en técnicas de sambo. Los resultados del estudio mostraron el impacto positivo de practicar un abordaje consciente del proceso de formación y de los deberes cotidianos, lo que indica la eficacia de las influencias propuestas para armonizar la personalidad de los alumnos y su desarrollo espiritual y moral.

Palabras clave: principios pedagógicos, conciencia, actividad, sambo, condiciones psicológicas y pedagógicas.

Introduction

Same as any other sport, sambo affects not only the body but also the psyche of the trainee. This argument allows examining the entire scope of influences of training on a person as a problem that does not boil down only to the improvement of physical potential but also has an existential and anthropological aspect. The initial conviction that physical culture develops not only the strength of muscles but also the strength of will, thus ensuring the harmony between the body and the spirit, suggests an urgent need to comprehend and understand how sambo techniques (throws, holds, flips, etc.) that develop strength, agility, flexibility, quickness, coordination, endurance, and determination are “spiritualized”. The essence of this coordination needs to be understood for the purpose of organizing and leading lessons in such a form so as to form an understanding that sambo is something far more than taking an opponent down on their back or competing in the mastery of techniques (Fomin and Linder 1990; Maliavin 2002; Manikovskaya and Stukova 2021). We suppose that sambo can provide a worldview position that enforces the conviction that without the harmony of body and spirit, there is no person since this harmony generates human identity. The formation of this outlook position is possible only through analyzing, developing, and implementing specific psychological and pedagogical conditions initially aimed at the harmonious upbringing of body and spirit, through emphasizing the spiritual component of physical exercises, particularly sambo techniques, by means of developing the consciousness and activity of children.
The problem of developing children’s consciousness and activity in the pedagogical process lies in the focus of attention of leading scientists in the field of psychology (Leontiev 2001; Leontiev 1946; Petrovskii 2013). Of no less interest is the study of conscious assimilation of motor actions and the construction of motor activity in general (Biankina et al. 2012; Dmitriev 1995, 1999; Donskoi 1995). The pedagogical principle of consciousness and activity, being one of the leading principles in Russian education over the past hundred years, has somewhat changed its meaning in accordance with the modern scientific understanding of consciousness and activity. These concepts denote the psychological qualities of the individual, on the one hand, and the characteristics of the learning process, on the other hand. Combined in a new scientific understanding of the traditional pedagogical principle, consciousness and activity require their empirical justification in the pedagogical process. The educational and training process, being a kind of pedagogical process, imposes its own characteristics on the implementation of this principle, mainly its psychological component through the physical education of children. It should be noted that the process of psychological preparation in sports has several significant features that distinguish it from the psychology of physical education (Pineda-Espejel, et al., 2020; Julio Román, et al. 2022). The development of the spiritual and moral qualities of children and the harmonization of spirit and body, being educational tasks, are solved through the organization of the educational and training process, which is carried out in two main directions. Firstly, the very mastery of motor skills develops volitional qualities in students (Biankina, et al., 2012; Ilyin, 2020; Manikovskaia and Stukova. 2021; Noskov, 2015). Secondly, the organizational and methodological support of the teacher, having an educational nature, contributes to the development of spiritual and moral qualities and the harmonious development of the child.

Meanwhile, the implementation of the project “Sambo to School”, which involves sports training sessions in the third lesson, faces a number of problems of organizational and methodological nature (Galitsyn and Sergoian 2019; Kostiukova et al. 2020; Liadov et al. 2018). Therefore, the situation calls for additional analysis of psychological and pedagogical conditions related to the peculiarities of children’s motivation for this kind of activities, the use of sportization (facilitated training mode), the use of individual independent tasks, and the methods of self-control and mutual control, as well as the development of creative thinking of children, which is the leading component. In this study, the implementation of the principle of consciousness and activity is considered from the point of view of solving the problems of harmonizing the spiritual, moral, and physical education of children through the development of personal qualities and creative thinking. Within the framework of the third, additional physical education lessons and sambo training sessions at the Municipal secondary school № 6 of Khabarovsk (Russia), psychological and pedagogical conditions for the realization of the principle of consciousness and activity of primary school children are studied, developed, and put into practice. The methods employed as part of the conducted study include analysis of literary sources, expert evaluation, pedagogical experiment, and the methods of mathematical statistics.

As a result of the analysis of literature, it is revealed that the principle of consciousness and activity can be implemented in the process of education and upbringing more effectively if accompanied by the development of creative thinking, which, in essence, not only always focuses on consciousness and, consequently, a conscious attitude to the studied subject, but is also interconnected with it. The development of creative thinking, creativity, and the ability to non-standard thinking is taking the leading position in modern education, as it is conditioned by constantly renewing socio-cultural conditions. Creativity as the creation of something new extends its boundaries not only to the objective environment but also to new formations in personality, activity, and thinking.

Creativity is understood as a person’s creative abilities that can be manifested: in thinking, feelings, communication, individual types of activity, the overall personality and its particular aspects, as well as in the products of activity. Below we offer a selection of methodological techniques and tasks for the development of each type of creative abilities:

1) in thinking:
   a) problem-based presentation in repeated explanations;
   b) varying the performance of individual elements of exercises in order to increase their effectiveness;
   c) performance of exercises in pairs and groups of three with an emphasis on the analysis of partners’ motor activity;
   d) targeted influence by prompting questions;
2) in communication:
   a) a reflective dialogue with 2-3 students at the end of the lesson with sample questions: “What technical action did we perform today? What exercises did you use to do it? What did you not do well? What mistakes did you make? How did you correct them?”
   b) the students grading one another’s specific technical actions;
   c) using mutual learning to increase the intensity of the lesson:
3) in individual types of activity;
4) in the overall personality and its particular aspects;
5) in the products of activity and the process of their creation:
   a) project development activities in the areas of:
      1. sports field project;
      2. the project of the site for physical education;

Methods
3. the project of the set of exercises;
4. the project of an active game;
5. sports equipment project;

b) homework. Preparation for the next lesson. Selecting an active game – reviewing options, choosing the game, explaining the rules, and leading the game as a facilitator. Obligatory group homework (for 2-3 people – one facilitator, two judges).

To test the effectiveness of the proposed experimental interventions, the control and experimental groups, with 10 boys and 10 girls in each, were formed from among the students attending sambo lessons in a specialized sports hall as part of the third physical education lesson. The pedagogical experiment was carried out for seven months (September 2020 – April 2021), the children in the control and experimental groups were in equal conditions, attending three physical education lessons each. The experimental group was engaged based on a set of developed methodological techniques, and the control group – according to the generally accepted program.

The effectiveness of the proposed influences is assessed by the recruited experts, which were offered a list of technical and tactical techniques that need to be mastered by 9-10-year old children attending sambo lessons as part of the third physical education lesson, as well as a list of mistakes that can be made in the performance of these techniques (Filin 2013; Iugai 2020; Kuritsyna 2012; Noskov 2015; Osipov 2008; Svisheev, Pankratov, and Polukhin 2017).

The provided list includes the following technical and tactical actions: self-protection when rollover falling on the back, self-protection when rollover falling on the side, self-protection when rolling forward on the hands, outside trip throw, double leg takedown, throw with a hand grab on the shoulder from the knees, outside trip throw with leg grab, hip throw, top hold, and side hold. For each action, a list of typical mistakes made by children of the given age is compiled to be used as a basis for the assessment of the performance of these technical and tactical techniques.

To process the material obtained during the study, methods of mathematical statistics were used, including the calculation of the arithmetic mean (M) and the arithmetic mean error (±m). The reliability of the results obtained was assessed using Student’s rank test. Reliability was determined for the significance level P=0.05. Calculations were made according to generally accepted formulas.

Results and discussion

The development of creative thinking is a relatively new task for additional education programs in sports training. It is not quite clear in what part of the lesson certain exercises and tasks should be performed and, moreover, what should these tasks themselves be.

We propose several options for incorporating tasks for the development of creative thinking: before the lesson during the line-up (performance of motor actions with the activity of simultaneous solution or based on solving problems for the development of creative abilities), during warm-up (associated with motor activity), in the main part of the lesson (within the framework of training the child’s tactical actions), in the final part (during stretching and relaxation exercises). At the initial stages of the development of creative thinking, in our view, any exercises for the development of thinking, imagination, attention, and memory are suitable, as these processes (qualities) underlie creative activity. The exercises we select can be done repeatedly, with different and the same children. As part of these exercises, children can come up with something of their own, which should be fully supported by the trainer. If students come up with their own exercises or suggest tasks which they know from other children, from school, from books, or from the Internet, and these exercises or tasks also address the problems of thinking development, it is possible to create their own “Group Games and Exercises Bank”, the title of which can also become an example of a creative task for children.

Once the children master the basic sambo techniques, we suggest that as part of the development of their creative thinking, they can be offered problem-based cases that occur in competitions.

Completing the proposed exercises, a student displays activity, consciousness, and responsibility, learns to recognize their own unique style of competing. For this reason, we believe that creative thinking can be viewed as a mechanism of implementing the principle of consciousness and activity in sambo.

At the beginning of the experiment, children’s performance of the specified techniques is evaluated by experts with no significant differences found. After the experimental influences, changes are detected in both control and experimental groups. In the processing of expert evaluations, significant differences are found in both the control and experimental groups. In the control group of boys, there are no significant changes in the experts’ evaluations of any of the techniques, while the control group of girls shows significant improvement in the techniques of self-protection when rollover falling on the back and double leg takedown. This finding can be explained by the physiological and psychological features of girls, as well as by the relative simplicity of one of the techniques and the rather high quality of its performance at the start of the experiment.

Comparison of the control and experimental groups after the experiment (see Tables 1 and 2) reveals that significant differences in the experts’ assessment of students’ performance are not observed for every technique.

In the experimental groups, a significant difference is identified in the boys’ performance of eight techniques out of ten, except for the performance of double leg takedown and top hold. We are inclined to explain this result by the high rates of expert evaluation of these techniques prior to the experiment. The girls in the experimental group show significant improvements in nine out of ten techniques,
except for top hold, which can also be attributed to good performance before the experiment. Positive trends in the mastery of the techniques are also found in the control groups, but the advantage of the experimental group is confirmed by mathematical calculations.

The main evidence of the positive impact of the experimental influences is the comparison of the parameters of expert evaluations of sambo techniques in the control and experimental groups after the experiment (Table 1 and 2).

The boys show significant improvement in five techniques out of ten: self-protection when rollover falling on the side (74.77%), self-protection when falling forward on the hands (93.64%), throw with a hand grab on the shoulder (78.74%), outside trip throw with leg grab (50.38%); hip throw (50%). The girls demonstrate a significant difference in the performance of six techniques: self-protection when rollover falling on the side (56.5%), self-protection when falling forward on the hands (36.91%), double leg takedown (16.85%), throw with a hand grab on the shoulder from the knees (52.79%), outside trip throw with leg grab (42.03%), and side hold (22.76%). Changes in the boys and girls match for four techniques: self-protection when rollover falling on the side, self-protection when falling forward on the hands, double leg takedown, and outside trip throw with leg grab. On the one hand, these techniques are of sufficient technical complexity, yet on the other hand, with an emphasis on conscious performance and the use of tasks for the development of creative thinking in the execution of movements, they are performed with better technique and fewer mistakes. Thus, the proposed experimental influences contribute to better mastery of techniques by children in the experimental groups, even under the conditions of one lesson per week. Improvement of the technique in children in the experimental groups in comparison with the control indicates their more conscious implementation. The manifestation of supra-situational activity in the performance of creative tasks contributes not only to better performance of the technique, which was noted by experts, but also to a more conscious attitude to classes and, in general, in the behavior of children, which was noted in the process of pedagogical observation.

Table 1. Expert assessment of sambo techniques in the control and experimental groups after the experiment (boys)

<table>
<thead>
<tr>
<th>Parameters</th>
<th>M1 ± m</th>
<th>M2 ± m</th>
<th>Difference in %</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Self-protection when rollover falling on the side</td>
<td>2.51±0.11</td>
<td>2.65±0.11</td>
<td>0.07</td>
<td>2.77</td>
<td>0.45</td>
</tr>
<tr>
<td>2) Self-protection when rollover falling on the back</td>
<td>1.07±0.22</td>
<td>1.87±0.22</td>
<td>0.8</td>
<td>74.77</td>
<td>2.57</td>
</tr>
<tr>
<td>3) Self-protection when rollover falling on the side</td>
<td>1.5±0.32</td>
<td>2.13±0.11</td>
<td>1.03</td>
<td>93.64</td>
<td>1.04</td>
</tr>
<tr>
<td>4) Outside trip throw</td>
<td>2.07±0.32</td>
<td>2.47±0.22</td>
<td>0.4</td>
<td>19.32</td>
<td>1.03</td>
</tr>
<tr>
<td>5) Double leg takedown</td>
<td>2.30±0.22</td>
<td>2.33±0.22</td>
<td>0.33</td>
<td>16.30</td>
<td>1.06</td>
</tr>
<tr>
<td>6) Throw with a hand grab on the shoulder</td>
<td>2.72±0.11</td>
<td>2.72±0.22</td>
<td>1</td>
<td>38.74</td>
<td>4.07</td>
</tr>
</tbody>
</table>

Table 2. Expert assessment of sambo techniques in the control and experimental groups after the experiment (girls)

<table>
<thead>
<tr>
<th>Parameters</th>
<th>M1 ± m</th>
<th>M2 ± m</th>
<th>Difference in %</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Self-protection when rollover falling on the back</td>
<td>2.62±0.11</td>
<td>2.53±0.11</td>
<td>0.07</td>
<td>2.77</td>
<td>0.45</td>
</tr>
<tr>
<td>2) Self-protection when rollover falling on the side</td>
<td>0.87±0.32</td>
<td>2.20±0.22</td>
<td>1.13</td>
<td>56.50</td>
<td>2.91</td>
</tr>
<tr>
<td>3) Self-protection when rollover falling on the side</td>
<td>1.47±0.22</td>
<td>2.33±0.22</td>
<td>0.86</td>
<td>36.91</td>
<td>2.76</td>
</tr>
<tr>
<td>4) Outside trip throw with leg grab</td>
<td>2.33±0.11</td>
<td>2.53±0.11</td>
<td>0.2</td>
<td>11.86</td>
<td>1.22</td>
</tr>
<tr>
<td>5) Double leg takedown</td>
<td>2.73±0.11</td>
<td>2.73±0.11</td>
<td>0.46</td>
<td>16.85</td>
<td>2.96</td>
</tr>
<tr>
<td>6) Throw with a hand grab on the shoulder</td>
<td>1.12±0.32</td>
<td>2.33±0.22</td>
<td>1.21</td>
<td>52.79</td>
<td>3.17</td>
</tr>
<tr>
<td>7) Outside trip throw with leg grab</td>
<td>1.22±0.32</td>
<td>2.07±0.22</td>
<td>0.87</td>
<td>43.03</td>
<td>2.24</td>
</tr>
<tr>
<td>8) Hip throw</td>
<td>1.27±0.22</td>
<td>1.87±0.22</td>
<td>0.6</td>
<td>32.09</td>
<td>1.93</td>
</tr>
<tr>
<td>9) Top hold</td>
<td>2.62±0.11</td>
<td>2.65±0.11</td>
<td>0</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>10) Side hold</td>
<td>2.07±0.22</td>
<td>2.68±0.11</td>
<td>0.61</td>
<td>22.76</td>
<td>2.48</td>
</tr>
</tbody>
</table>

Conclusion

1. As a result of the analysis of literary sources, it is determined that the principle of consciousness and activity can be implemented in the process of education and upbringing more effectively if put into practice in combination with the development of creative thinking, which essentially not only always focuses on consciousness and, accordingly, on a conscious attitude to the studied subject, but is always interrelated with it. The development of creative thinking, creativity, and the ability to non-standard thinking takes the leading position in modern education, as it is conditioned by constantly renewing socio-cultural conditions. Creativity as the creation of something new extends its boundaries not only to the objective environment but also to new formations in personality, activity, and thinking.

2. As a result of the analysis of scientific and methodological literature and statistical reports, the following problems of young sambo wrestlers training in the “Sambo to School” project are detected:
- mechanisms for the transition of 7-18-year-old students of the “Sambo to School” project to sports training groups are not regulated;
- no fundamental difference is found in the use of instruments and methods between the training in rehabilitation groups at children’s and youth sports schools and the training within the “Sambo to School” project;
- the level of training of the teachers involved in the “Sambo to School” project is insufficient.

3. As part of the theoretical and empirical research, the pedagogical conditions contributing to an increase in the
consciousness and activity of children in sambo lessons are determined:

1) stimulation of children’s interest in training sessions and participation in competitions;
2) efficiency of the work of coaching staff;
3) joint training sessions for girls and boys;
4) formation of a close-knit sports team by creating extreme situations, changing the environment, and giving children an opportunity to show themselves in a different capacity;
5) implementation of pedagogical control and self-monitoring of training loads;
6) development of creative thinking.

4. The complex of methodological techniques for the implementation of the principle of consciousness and activity in the framework of the "Sambo to School" project for 9-10-year-old children is based on the manifestations of human creative capabilities in thinking, feeling, communication, certain types of activity, personality as a whole, and its individual aspects, as well as the products of activity. The complex includes methodological techniques and tasks for the development of each type of creative abilities.

5. Over the course of the experiment, the children engaged in sambo lessons as part of the "Sambo to School" project demonstrate significant improvements in their technical proficiency. According to the results of pedagogical observation, the children of the experimental groups had a more conscious attitude both to the training process and in the performance of daily duties, which indicates the effectiveness of the proposed influences for harmonizing the students' personalities and their spiritual and moral development.

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