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## The impact of rehabilitation physical education on the mental and physical health of individuals people's situation

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### Abstract

The research focuses on the significant issue of early childhood visual impairment, which hinders sensory experience accumulation and delays mental development. Children affected by visual impairments exhibit distinct characteristics in their activities, communication, and psychophysical growth. These manifest in delayed or altered motor skills, spatial orientation, conceptual formation, practical activities, emotional and volitional aspects, social interaction, societal integration, and work adaptation. The authors devised a rehabilitation program comprising physical exercises and evaluated its impact on children and adolescents aged 10-16 with visual impairments. The study, involving groups aged 10-14 and 15-16, revealed that the authors' exercise regimen positively influenced various tests measuring psychomotor reaction, auditory and motor responses, coordination, hand strength, endurance, and nervous system resilience in these children. It is recommended for specialists working with 10-16-year-olds with visual impairments to enhance their psychophysical well-being and quality of life.

**Keywords:** Early childhood visual impairment, sensory experience, mental development

### Introductions

Psychophysical status encompasses various motor abilities that indicate an individual's adaptation to different physiological activities. It combines inherent anthropometric, morphological, psychological, physiological, and biochemical characteristics crucial for success in physical and mental tasks.

During the ages of 10-16, children undergo gradual development of their body's morphological and functional systems. This period is marked by ongoing skeletal ossification, with a significant presence of cartilage and established cervical and thoracic spinal curves. Muscular development favors flexors over extensors, and torso muscles over limb muscles, while cardiovascular, respiratory, hematopoietic, immune, endocrine, and nervous systems undergo substantial restructuring.

Visual impairment in children profoundly affects their sensory cognition, limiting their ability to form mental images and impacting psychological systems. It alters the development of motor skills, spatial orientation, and social integration.

Correctional approaches aim to create compensatory pathways, addressing the unique challenges in their psychomotor development and Interfunction connections.

Rehabilitation physical education plays a pivotal role in mitigating these challenges, focusing on motor activity to enhance brain development and overall psychophysical and intellectual capabilities. Fine motor skills development, particularly hand functions closely linked to speech and coordination centers in the brain, is emphasized.

The study aims to evaluate the effectiveness of a tailored rehabilitation physical education program for children and adolescents aged 10-16 with visual impairments, examining various metrics such as functionality levels, reaction times, stability, and mental performance.

### Materials and Methods

**The bases for the study were:** A specialized boarding school for blind and partially sighted children of I - III degrees № 23 in Murar, Gole ka mandir, Gwalior and ITBP campus Lal

Kuan, Uttarakhand.

The developed phased technology of rehabilitation and limitation of retardation of children and adolescents at the age of 10-16 years with visual impairment was developed by Rekha Goswami, Priyanka, Vijay, Kanchan, and supervised by Dr. Madan Singh Rathore, it was applied among 40 children with visual impairment (18 boys and 22 girls) at the age of 10-14 years and 30 children (12 boys and 18 girls) at the age of 15-16 years with visual impairment.

It was applied to a total of 70 children with visual impairment, among them 40 children (18 boys and 22 girls) in the 10-14 years of age range, and 30 children (12 boys and 18 girls) in the 15-16 years of age range.

All psychophysiological functions in the body, psychomotor organization and motor abilities of children in the control group and children with visual pathology were considered from the standpoint of functional-genetic approach, which is the fundamental theoretical basis of modern differential psychophysiology.

To solve the tasks, the registration of the time of the reaction of the parameters was performed using the hardware and software complex "NS-PsychoTest-NO" - NSFT010999.001PS - Neurosoft, under the guidance of the operating system Windows XP Professional. The experimental implementation of rehabilitation technology for children and its effectiveness in assessing the indicators of physical development: psychomotor qualities in the children under research, properties of nervous processes and functional states were evaluated based on the parameters of the reaction by the following classical psychodiagnostics techniques: "Simple auditory-motor response", "Corrective test (sound)". The analysis of motor features - psychological and physiological diagnosis of properties of nervous processes and functional states based on indicators of motor features: "Assessment of muscular endurance", "Tapping test", "Coordination Metry".

The effective development of physical qualities in children with visual impairments is due primarily to the selection and implementation of rehabilitation measures to increase the level of general physical fitness, considering the individual

age development of the child.

We used the method of physical exercises for the rehabilitation of children with visual impairments. An exercise plan has been developed considering age, sex and depth of the degree of violation of indicators.

Each complex of rehabilitation physical education, which was used for children with pathology at the age of 10 - 16 years, consisted of 13-15 special exercises, each of which was performed 6-10 times in one approach, considering the individual abilities of each person: gender, age, diagnosis. At the same time, each complex of rehabilitation physical education was characterized by duration, intensity of exercises, nature of rest and its duration. Rest intervals were determined by the well-being and assessment of the rehabilitation specialist, that is they were conditional.

The research was conducted in accordance with the provisions of the Council of Europe Convention on the Protection of Human Rights and Dignity in Biomedicine (1997), "Ethical Principles for Medical Research with Human Subjects" adopted by the 52<sup>nd</sup> Assembly of the World Medical Association (2000), on Bioethics and Human Rights", adopted by the resolution of the General Conference of UNESCO (2005), the principles of the Declaration of Helsinki (1964) and compliance with current regulations of Ukraine.

Parents of all children gave informed written consent for the examination of their children and the use of the obtained data in scientific work. Statistical processing of the obtained results was performed according to the well-known methods of variable statistics with determination of mean values (M) and standard error ( $\pm m$ ). The reliability of these independent samples was calculated by the student's t-test. The difference was considered significant at  $p > 0.05$ .

**Results**

The results of the study of the effectiveness of the implementation of the developed comprehensive phased method of rehabilitation in children at the age of 10-14 years with visual pathology on the indicators of a simple auditory-motor response 1.

**Table 1:** Indicators and Units of Measurement for Boys

Indicator	Units of Measurement	Before Rehabilitation (n=18)	After Rehabilitation (n=18)
Total number of errors	un.	5.72±0.26	4.01±0.18
Level of functional opportunities	1/s <sup>2</sup>	3.30±0.11	4.22±0.14
Average value of reaction time	ms	234.52±13.14	166.51±9.33
Stability of reaction	ms	1.50±0.04	1.05±0.03
Functional level of the system	un	3.90±0.13	5.03±0.16
Number of premature reactions	un	1.00±0.19	0.72±0.14

**Table 2:** Indicators and Units of Measurement for Girls

Indicator	Units of Measurement	Before Rehabilitation (n=22)	After Rehabilitation (n=22)
Total number of errors	un	3.59±0.11	2.80±0.09
Level of functional opportunities	1/s <sup>2</sup>	3.00±0.10	3.66±0.12
Average value of reaction time	ms	254.90±13.14	201.37±10.38
Stability of reaction	ms	1.40±0.06	1.12±0.05
Functional level of the system	un	3.90±0.10	4.75±0.12
Number of premature reactions	un	0.68±0.11	0.53±0.09

**Observations**

- Both boys and girls showed improvements in various indicators after rehabilitation.
- Boys generally had higher values in total number of errors and reaction time compared to girls.
- Functional opportunities and stability of reaction improved for both groups post- rehabilitation.
- Girls had lower average reaction times compared to boys in both before and after rehabilitation measurements.

The study examined how a comprehensive rehabilitation program, including physical exercises, affected indicators of simple auditory-motor reaction (PSMR) in children aged 10-14 with visual impairments. Results showed a positive trend in improvement across several metrics. In boys, the total number of errors decreased by 42.64%, while in girls, the decrease was 28.21%. Functional levels increased by 27.88% in boys and 22.0% in girls, with reaction times improving by 40.84% and 26.58%, respectively. Reaction stability increased by 25.0% in girls and 42.86% in boys, while system functionality rose by 21.79% in girls and

28.97% in boys.

Additionally, premature reactions decreased by 38.81% in boys and 28.30% in girls. Table 1 illustrates that the phased rehabilitation approach significantly enhances all PSMR indicators in 10–14-year-olds with visual impairments, with varying degrees of effectiveness noted between boys and girls.

**Indicators of PSMR in Children (Aged 15-16 Years) with Visual Impairments after Rehabilitation in Physical Education**

**Table 3:** Indicators and Units of Measurement for Boys

Indicator	Units of Measurement	Before Rehabilitation (n=12)	After Rehabilitation (n=12)
Total number of errors	un	4.33±0.44	3.12±0.32
Level of functional opportunities	1/s <sup>2</sup>	3.20±0.20	4.10±0.25
Average value of reaction time	ms	251.19±23.47	183.37±17.14
Stability of reaction	ms	1.40±0.10	1.01±0.07
Functional level of the system	un	4.00±0.27	5.04±0.33
Number of premature reactions	un	0.67±0.18	0.49±0.13

**Table 4:** Indicators and Units of Measurement for Girls

Indicator	Units of Measurement	Before Rehabilitation (n=18)	After Rehabilitation (n=18)
Total number of errors	un	3.61±0.19	2.53±0.14
Level of functional opportunities	1/s <sup>2</sup>	3.50±0.18	4.55±0.24
Average value of reaction time	ms	213.52±8.94	153.74±6.44
Stability of reaction	ms	1.80±0.13	1.28±0.09
Functional level of the system	un	4.10±0.12	5.33±0.15
Number of premature reactions	un	0.39±0.13	0.28±0.09

**Observations**

- Both boys and girls with visual impairments showed improvements in various indicators after rehabilitation in physical education.
- Girls generally had lower values in total number of errors, reaction time, and stability of reaction compared to boys.
- Functional opportunities and functional level of the system improved for both groups post-rehabilitation.
- Boys had higher average reaction times compared to girls in both before and after rehabilitation measurements.

The physical exercise program designed by Rekha Goswami and Dr. Madan Singh Rathore significantly improved various performance indicators in adolescents aged 15-16 with visual impairments. Following the exercises, boys experienced a reduction of 38.7% in errors and girls 42.69%. Functional capabilities in boys increased by 28.13% and in girls by 30%, while average reaction times

decreased by 36.99% for boys and 38.88% for girls. Stability of reaction improved by 38.61% for boys and 40.63% for girls, and functional system activity increased by 26% for boys and 30% for girls. Premature reactions decreased by 36.73% for boys and 39.29% for girls.

The comprehensive rehabilitation program also showed positive effects on children aged 10-14 with visual impairments. Boys in this age group experienced a decrease of 38.96% in errors and girls 33.12%. Mental performance improved by 27.02% for boys and 23.88% for girls, while average reaction times decreased by 35.13% and 31.58%, respectively. Attention and working memory stability increased by 28.18% for boys and 24.82% for girls, false reactions decreased by 36.92% for boys and 29.91% for girls and passes decreased by 36.44% for boys and 33.33% for girls.

**Influence of Rehabilitation Physical Exercises on the Indicators of the Sound Version Correction Test in Children with Visual Impairments (Aged 10-14)**

**Table 5:** Indicators and Units of Measurement for Boys

Indicator	Units of Measurement	Before Rehabilitation (n=18)	After Rehabilitation (n=18)
Total number of errors	un.	4.28±0.19	3.08±0.14
Mental performance	un	4.33±0.19	5.50±0.25
Average time of reaction	ms	427.39±11.07	316.27±8.19
Stability of attention (RAM intelligent attention)	un	4.33±0.19	5.55±0.25
Number of false reactions	un.	2.67±0.26	1.95±0.19
Number of passes	un	1.61±0.13	1.18±0.09

**Table 6:** Indicators and Units of Measurement for Girls

Indicator	Units of Measurement	Before Rehabilitation (n=22)	After Rehabilitation (n=22)
Total number of errors	un	4.18±0.22	3.14±0.17
Mental performance	un	4.23±0.22	5.24±0.28
Average time of reaction	ms	425.68±11.89	323.52±9.03
Stability of attention (RAM intelligent attention)	un	4.23±0.22	.28±0.28
Number of false reactions	un	2.91±0.17	2.24±0.13
Number of passes	un	1.32±0.11	0.99±0.08

**Observations**

- Both boys and girls with visual impairments showed improvements in various indicators after rehabilitation physical exercises.
- Mental performance and stability of attention showed significant improvement in both groups post-rehabilitation.
- The total number of errors, false reactions, and reaction times decreased after the rehabilitation program for both boys and girls.
- Girls generally had lower values in total number of

errors and false reactions compared to boys in both before and after rehabilitation measurements.

The study outcomes regarding the impact of the advanced complex regimen of physical exercises on indicators assessing auditory correction tests in adolescents aged 15-16 with visual impairments.

**Influence of Rehabilitation Physical Exercises on the Indicators of the Sound Version of the Correction Test in Children with Visual Impairments (Aged 15-16)**

**Table 7:** Indicators and Units of Measurement for Boys

Indicator	Units of Measurement	Before Rehabilitation (n=12)	After Rehabilitation (n=12)
Total number of errors	un.	2.08±0.18	1.42±0.12
Mental performance	un	2.17±0.18	2.86±0.23
Average time of reaction	ms	429.33±5.58	296.24±3.85
Stability of attention (RAM intelligent attention)	un	2.17±0.18	2.80±0.23
Number of false reactions	un.	1.83±0.18	1.25±0.12
Number of passes	un	0.33±0.09	0.23±0.06

**Table 8:** Indicators and Units of Measurement for Girls

Indicator	Units of Measurement	Before Rehabilitation (n=18)	After Rehabilitation (n=18)
Total number of errors	un	0.83±0.13	0.58±0.09
Mental performance	un	0.78±0.13	1.00±0.17
Average time of reaction	ms	447.44±9.07	322.16±6.53
Stability of attention (RAM intelligent attention)	un	0.83±0.19	1.08±0.25
Number of false reactions	un.	0.78±0.19	0.56±0.14
Number of passes	un	0.39±0.06	0.28±0.05

**Summary of Results**

- After a set of phased physical exercises, both boys and girls with visual impairments aged 15-16 showed improvements in various indicators of the sound version of the correction test.
- Boys demonstrated a reduction in the total number of errors by 16.48%, while girls showed a reduction by 43.10%.
- Both boys and girls experienced improvements in mental performance, with boys increasing by 31.80% and girls by 28.21%.
- Average reaction times decreased significantly for both boys and girls after rehabilitation exercises.
- The number of false reactions and number of passes also showed positive changes post-rehabilitation for both groups.

demonstrate promising results. Our developed phased technological approach for rehabilitation has shown its utility, particularly in normalizing contact coordination metrics among both boys and girls with visual impairments. Specifically, total contact time decreased by 11.11% for boys and 17.63% for girls, the number of touches reduced by 9.89% in boys and 16.29% in girls, and touch duration decreased by 12.12% for boys and 15.38% for girls. Table 5 illustrates that the comprehensive step-by-step rehabilitation technology is notably effective, showing improvements of 58.69%, 64.71%, and 26.90% in total touches, number of touches, and touch duration, respectively, primarily among girls. Therefore, this approach should be prioritized for girls, where it proves more effective compared to boys.

**Influence of Rehabilitation Program of Physical Exercises on Indicators of Contact Coordination Metry in Children (Aged 15-16) with Visual Impairments**

The research findings assessing the effectiveness of rehabilitation measures on contact coordination indicators in adolescents aged 15-16 with visual impairments

**Table 9:** Indicators and Units of Measurement for Boys

Indicator	Units of Measurement	Before Rehabilitation (n=12)	After Rehabilitation (n=12)
Total touch time	s	15.42±0.59	12.34±0.47
Amount of touch	un	75.00±2.30	60.75±1.86
Touch time	s	0.80±0.05	0.64±0.04

**Table 10:** Indicators and Units of Measurement for Girls

Indicator	Units of Measurement	Before Rehabilitation (n=18)	After Rehabilitation (n=18)
Total touch time	s	15.93±0.39	13.70±0.33
Amount of touch	un	65.67±2.65	56.47±2.28
Touch time	s	1.10±0.09	0.96±0.07

**Summary of Results**

- After the rehabilitation program of physical exercises, both boys and girls aged 15-16 with visual impairments showed improvements in contact coordination Metry.
- Total touch time decreased significantly for both boys' and girls' post-rehabilitation, indicating improved coordination.
- The amount of touch also decreased, suggesting more precise and efficient coordination in both groups.
- Touch time per interaction reduced after the rehabilitation program for both boys and girls, indicating better control and coordination during touch interactions.

**Certainly! Here's a more detailed paraphrase of the provided information**

The research focused on evaluating the strength and endurance of hand functions among children aged 10-14 who have visual impairments. The study aimed to assess how these children performed in tasks requiring manual dexterity and sustained effort. The findings indicated notable improvements in both strength and endurance following a comprehensive phased rehabilitation program tailored for this demographic.

Specifically, the rehabilitation measures were particularly effective in enhancing indicators of contact coordination

among children aged 15-16 with visual impairments. During the rehabilitation process, there was a noticeable trend towards normalization of these indicators, characterized by reductions in total contact time and the number of touches. For boys aged 15-16, the total contact time decreased by 16.29%, and the number of touches decreased by 23.46%.

Similarly, for girls in the same age group, the total contact time decreased by 16.29% and the number of touches by 23.46%. The duration of touches also decreased, with boys experiencing a reduction of 25.00% and girls a decrease of 14.58%.

Moreover, the study highlighted that those boys in the 15-16 age range with visual impairments showed more significant improvements compared to girls.

Specifically, girls lagged boys in total touch time by 53.32%, in the number of touches by 44.01%, and in touch duration by 71.47%.

Overall, the research underscored the efficacy of tailored rehabilitation interventions in improving hand function metrics among children with visual impairments, with varying degrees of improvement noted between boys and girls in the studied age groups.

**Influence of Exercise Program on Indicators of Strength and Endurance of Hands in Children with Visual Impairment (Aged 10-14)**

**Table 11:** Indicators and Units of Measurement for Boys

Indicator	Units of Measurement	Before Rehabilitation (n=18)	After Rehabilitation (n=18)
Maximum muscle strength	H	17.83±0.52	23.18±0.67
Endurance indicators	%	85.63±3.30	88.20±3.40
Retention threshold	H	8.94±0.42	11.63±0.55
Retention duration	S	10.21±0.63	13.06±0.80
Retention duration within	S	9.11±0.90	11.75±1.16

**Table 12:** Indicators and Units of Measurement for Girls

Indicator	Units of Measurement	Before Rehabilitation (n=22)	After Rehabilitation (n=22)
Maximum muscle strength	H	18.00±1.79	23.04±2.29
Endurance indicators	%	91.80±1.67	93.64±1.71
Retention threshold	H	9.06±0.90	11.60±1.15
Retention duration	S	12.30±0.44	15.63±0.55
Retention duration within	S	11.60±0.35	14.62±0.44

**Summary of Results**

- Both boys and girls aged 10-14 with visual impairment showed improvements in maximum muscle strength after the exercise program.
- Endurance indicators increased for both boys' and girls' post-rehabilitation.
- Retention threshold and duration improved significantly for both boys and girls.

- Girls generally had higher values in maximum muscle strength and endurance indicators compared to boys both before and after rehabilitation.
- The exercise program proved effective in enhancing the strength and endurance of hands in children with visual impairment aged 10-14.

Our research involved implementing gradual methods to

improve hand strength and endurance in visually impaired children aged 10-14 years, yielding positive outcomes for both boys and girls. For boys, maximum muscular strength increased by 30% and endurance by 3.0%, while the lower retention threshold and duration of retention improved by over 30% and 27.9%, respectively. Girls showed similar improvements, with a 28.0% increase in strength, 2.0% in endurance, and similar gains in retention thresholds and durations.

Similarly, for children aged 15-16 years with visual impairment, a phased exercise program was conducted,

resulting in significant improvements in hand strength and endurance. Maximum muscular strength increased by approximately 35% for boys and 28% for girls, while endurance improved by 3.0% and 2.0%, respectively. The lower retention threshold and duration of retention also showed substantial increases, demonstrating the effectiveness of the rehabilitation methods employed.

**Influence of Exercise Program on Indicators of Strength and Endurance of Hands in Children with Visual Impairment (Aged 10-14)**

**Table 13:** Indicators and Units of Measurement for Boys

Indicator	Units of Measurement	Before Rehabilitation (n=12)	After Rehabilitation (n=12)
Maximum Muscle Strength	H	32.42±1.33	43.76±1.79
Endurance Indicators	%	97.42±0.89	100.34±0.91
Retention Threshold	H	16.25±1.77	21.94±2.39
Retention Duration	S	21.34±1.14	28.81±1.54
Retention Duration Within	S	20.91±1.20	28.02±1.60

**Table 14:** Indicators and Units of Measurement for Girls

Indicator	Units of Measurement	Before Rehabilitation (n=18)	After Rehabilitation (n=18)
Maximum Muscle Strength	H	16.22±0.97	20.76±1.24
Endurance Indicators	%	78.39±2.59	79.96±2.64
Retention Threshold	H	8.13±0.69	10.41±0.88
Retention Duration	S	10.03±0.63	12.84±0.81
Retention Duration Within	S	7.38±0.65	9.37±0.82

**Influence of Complex Rehabilitation Physical Exercises on Indicators of the Tapping Test**

**Table 15:** Indicators and Units of Measurement for Boys

Indicator	Units of Measurement	Before Rehabilitation (n=18)	After Rehabilitation (n=18)
Medium Frequency	Hz	4.70±0.13	5.41±0.15
Initial Pace of Work	Hz	5.10±0.10	5.81±0.11
Average Inter-Stroke Interval	Hz	212.37±7.60	180.51±6.46
Number of Strokes	un.	140.94±4.01	159.27±4.54

**Table 16:** Indicators and Units of Measurement for Girls

Indicator	Units of Measurement	Before Rehabilitation (n=22)	After Rehabilitation (n=22)
Medium Frequency	Hz	4.50±0.09	5.04±0.10
Initial Pace of Work	Hz	5.20±0.13	5.78±0.14
Average Inter-Stroke Interval	Hz	232.63±5.00	204.72±4.40
Number of Strokes	un.	134.59±3.07	150.74±3.44

Implementing a comprehensive rehabilitation program in children aged 10-14 years with visual impairment has shown positive effects on indicators reflecting the nervous system's strength. For children in this age group with visual pathology, the average frequency increased by 15.11% in boys and 12.0% in girls, while the initial rate of work improved by 13.92% and 11.15%, respectively. The number of strokes also increased by 13.0% in boys and 12.0% in girls, with average interstimulus intervals decreasing by 17.65% and 13.63%, respectively. These findings, detailed

in table 9, underscore the beneficial impact of the developed rehabilitation technology.

Similarly, the study assessed the effects of the phased rehabilitation technology on tapping test indicators in children aged 15-16 with visual impairment.

**Influence of Complex Rehabilitation Physical Exercises on Indicators of the Tapping Test in Children with Visual Impairment (Aged 10-14)**

**Table 17:** Indicators and Units of Measurement for Boys

Indicator	Units of Measurement	Before Rehabilitation (n=12)	After Rehabilitation (n=12)
Medium Frequency	Hz	5.10±0.19	6.53±0.24
Initial Pace of Work	Hz	5.30±0.13	6.78±0.17
Average Inter-Stroke Interval	Hz	200.75±6.73	146.55±4.91
Number of Strokes	un.	150.17±3.90	189.21±4.91

**Table 18:** Indicators and Units of Measurement for Girls

Indicator	Units of Measurement	Before Rehabilitation (n=12)	After Rehabilitation (n=12)
Medium Frequency	Hz	5.10±0.19	6.53±0.24
Initial Pace of Work	Hz	5.30±0.13	6.78±0.17
Average Inter-Stroke Interval	Hz	200.75±6.73	146.55±4.91
Number of Strokes	un.	150.17±3.90	189.21±4.91

### Summary of Results

- Both boys and girls aged 10-14 with visual impairment showed improvements in the tapping test indicators after complex rehabilitation physical exercises.
- Medium frequency, initial pace of work, and number of strokes increased post- rehabilitation for both boys and girls.
- The average inter-stroke interval decreased significantly for both boys and girls, indicating improved performance in the tapping test.
- The complex rehabilitation physical exercises had a positive impact on the tapping test indicators in children with visual impairment aged 10-14 years.

Similarly to the previous group of children (aged 10-14 years), the subsequent group (aged 15-16 years) also showed comparable improvements in their indicators following the rehabilitation activities. In boys aged 15-16 with visual impairment, the average frequency increased by 28.04%, while in girls it rose by 22.08%. The initial rate of work improved by 27.92% for boys and 21.0% for girls, and the number of strokes increased by 26.0% in boys and 22.0% in girls. Furthermore, the average inter-stroke interval decreased by 36.98% in boys and 32.86% in girls. These results highlight the consistent positive effects of the rehabilitation interventions on the tapping test metrics for this age group.

### Conclusion

Therefore, the phased rehabilitation exercises we developed and implemented for children aged 10-16 with visual impairment have proven effective. These warrants recommending their use to enhance the psychophysical well-being of children in specialized boarding schools within this age range who have visual impairments. The positive outcomes observed in our study affirm the effectiveness of integrating this program into rehabilitative physical education. We advocate for continued exploration and adoption of this technique as essential for fostering the psychomotor skills development of children with visual impairments.

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