International Journal of Human Movement and Sports Sciences 12(1): 50-58, 2024 http://www.hrpub.org
DOI: 10.13189/saj.2024.120107

The DR-GOS Model: Early Detection of the Potential of Children with Disabilities through a Sports Education Approach

Anggi Setia Lengkana[1,*], Tatang Muhtar[1], Tedi Supriyadi[1], Indra Safari[1], Aisya Kemala[2], Andarias Ginting[3], Raswin[3]

[1]Physical Education Study Program, Universitas Pendidikan Indonesia, Indonesia
[2]Physical Education, Health and Recreation Program, Universitas Islam 45, Indonesia
[3] Faculty of Sports Science, Universitas Negeri Medan, Indonesia

Received September 23, 2023; Revised November 14, 2023; Accepted December 14, 2023

Cite This Paper in the Following Citation Styles

(a): *[1] Anggi Setia Lengkana, Tatang Muhtar, Tedi Supriyadi, Indra Safari, Aisya Kemala, Andarias Ginting, Raswin , "The DR-GOS Model: Early Detection of the Potential of Children with Disabilities through a Sports Education Approach," International Journal of Human Movement and Sports Sciences, Vol. 12, No. 1, pp. 50 - 58, 2024. DOI: 10.13189/saj.2024.120107.*

(b): *Anggi Setia Lengkana, Tatang Muhtar, Tedi Supriyadi, Indra Safari, Aisya Kemala, Andarias Ginting, Raswin (2024). The DR-GOS Model: Early Detection of the Potential of Children with Disabilities through a Sports Education Approach. International Journal of Human Movement and Sports Sciences, 12(1), 50 - 58. DOI: 10.13189/saj.2024.120107.*

Abstract Every child's life is unique, as is their potential or talent. A coach must be fully aware of each child's uniqueness in developing children to become future athletes, as we know that every child has specific potential/talents in the sports field, including those with disabilities. This research aims to determine the influence of the DR-GOS model in helping children with disabilities assess their abilities and interests in sports. The researcher chose the experimental method as the approach used in the research with a one-group pre-test-post-test design. The sample consisted of 20 students representing three school areas for people with disabilities in West Java, Indonesia. The instrument used was the second series of gross motor development tests (TGMD-2). Based on the calculation of the average difference between pre-test and post-test TGMD-2 data, the average locomotor skill was 36.32; for ball control ability, the total average was 44.01; meanwhile, the TGMD-2 test results obtained an average of 80.35. To test data normality using Kolmogorov-Smirnov, the TGMD-2 test result was 0.146. Since the data is usually distributed and Asymp.Sig is significantly more than 0.05, hypothesis testing was carried out using one-way ANOVA analysis; the result obtained was a P value of 0.002 < 0.05. This condition means that H0 is rejected, thus proving that there is a difference between the average pre-test score and the post-test score. This research shows how the application of the DR-GOS model has succeeded in helping children with hearing impairments (PI) to determine their sports talents. It is hoped that this can help other people with disabilities decide on their sporting skills, of course, with several different special tools. This matter is necessary to support the existence of children with disabilities in the social life they deserve.

Keywords Model DR-GOS, Talents, Disabilities, Sports, Young Athletes

1. Introduction

Sports education is a systematic educational process in which all activities or efforts can encourage the development of one's physical potential. In other words, sports are physical activities that contain the nature of games and struggles with oneself, other people, and nature with a specific purpose [1]. [2] explains that sports education is also an educational process that utilizes

physical activity to produce holistic changes in individual quality, both physically, mentally, and emotionally.

Various new sports activities were created to suit the needs of children in school activities, including those with disabilities. Disabilities are those who cannot carry out all or part of the everyday activities of personal or social life due to physical or mental disorders. [3]. This understanding implies that for people with disabilities, it certainly does not mean they are unhealthy, as long as they can still carry out activities by using the functional abilities of the body they still have. In addition, health is a fundamental human right for everyone to get it without exception for persons with disabilities, so to keep persons with disabilities healthy, it needs to be carried out in a comprehensive and integrated manner by increasing awareness, willingness, and ability to live healthily to achieve a high degree of health [4].

The Government of Indonesia has ratified the convention on the rights of persons with disabilities through the Ratification of the Convention on the Rights of Persons with Disabilities. Appreciation for people with disabilities is part of the Government, one of which is in sports. Participation of persons with disabilities in sports for persons with disabilities that are available nationally and internationally can effectively improve the quality of life. Therefore, it can be emphasized that people with disabilities have the same rights in their activities. Indonesia's National Paralympic Committee (NPC) oversees all sports for disabled people to equalize the role of disabled people in sports.

The implementation of sports education for people with disabilities is used as a medium to develop their potential and talents, considering that every human being, besides having weaknesses, also has strengths, abilities, and uniqueness [5]–[7]. Choosing an athlete for people with disabilities is understandable because, with a sports education approach, people with disabilities can prove they can compete and achieve achievements. Sports activities do not require many requirements, and everyone has the right to participate, including persons with disabilities. Sports media will significantly assist persons with disabilities in exploring their latent sports talents and abilities so that athletes with disabilities can actualize themselves. The success of an athlete's self-actualization can be seen in his achievements [8]–[10].

Based on the results of the search conducted, there are still many persons with disabilities who have not been entirely directed at sports activities sustainably, especially in the Physical Impairment (PI) category for children with hearing impairments. This category has its sensitivity. They tend to need more direction because there is no guidance process regarding talent in sports. One of the characteristics of talented children in sports is that they usually look active and have excellent gross abilities and movement coordination. In other words, if children show interest in sports, now is the time for people with disabilities to hone their abilities further. Therefore, every sport one participates in is grouped and adjusted according to their respective level of specialty. The sports handicap classification aims to provide fair opportunities and rules for fair competition between people with different disabilities [11]. This matter concerns practitioners and academics because this is a big task in developing every potential in people with disabilities. Coaching and sports development for persons with disabilities aim to improve health, self-confidence, and sports achievements [12]. Therefore, a training model is needed to help children develop their potential through a sports education approach, one of which is the DR-GOS model.

The DR-GOS model was created to help with the process of coaching sports for people with disabilities. DR-GOS is an acronym for several physical activities designed by researchers to develop the potential of children with disabilities. The DR-GOS model comes from the words Development activity games, Rhythmic activity, Gymnastics activity, Outdoor activity, Sports, and fun. This coaching model is implemented as a medium for routine activities before the participants are identified for their sporting talent. To obtain good athletes, it is necessary to prepare from the start, namely with a marketing program that is carried out by encouraging disabled children to carry out sports activities as a whole or any sport. DR-GOS is here to provide solutions to increase the potential of children with disabilities in sports activities. DR-GOS is a light movement activity done repeatedly for a long duration. Therefore, researchers believe every child should be given equal opportunities to enjoy and achieve their right to play. Children with disabilities have the right to have sufficient time and space to move and work freely. However, they choose without being too hindered. Therefore, this study aims to detect the potential of children with disabilities using the DR-GOS model through a sports education approach.

2. Theoretical Framework

2.1. Model DR-GOS

Researchers take this coaching model from several multilateral activities, which are then developed into several stages of movement so that children can experience several challenges in each activity. The following are the activities in the DR-GOS model:

(D) Development Activity Games

Development activities always aim to direct someone to be braver to explore many things. This activity aims to develop the individual organically, neuromuscularly, intellectually, and emotionally [13]. As for examples of the scope of this development activity, for example, studying posture mechanics, components of physical fitness, and forms of posture and other activities.

(R) Rhythmic Activity

Rhythmic activity is part of a systematic plan to develop and increase individuals' knowledge of cognitive, emotional, and other sciences [14]. As for the example, the scope of this rhythmic activity includes many things, starting with free movement, morning exercises and aerobics, and other activities. In this case, the rhythm itself is a movement that is carried out in a more enjoyable and relaxed manner because it is done with sound tools or media so that it can cause pleasure for those who carry out this rhythmic activity.

(G) Gymnastics Activity

Gymnastics activities are undoubtedly a familiar thing that you have just heard. Of course, gymnastic activities have been done; this form of sport is also easy to do and doesn't need to be expensive. As information that gymnastics is one of the scopes studied in depth in this research. Examples of studies studied in this gymnastic activity include several things, starting from simple agility gymnastics, agility without tools, talent with tools, floor gymnastics, and other activities [15].

(O) Outdoor Activity

Outdoor activity, most often done in undeveloped areas, is called outdoor activity. Depending on their physical activity, many activities that fall under the outdoor recreation category are possible. These activities can usually be undertaken alone or in a group, including fishing, hunting, backpacking, and horseback riding [16]. Outdoor recreation is a broad term that covers a wide variety of activities. The general goals of outdoor activity include physical fitness, overall health, and spiritual refreshment. Leisure in outdoor activities only sometimes involves the same level of competition or competition as expressed in sports goals; therefore, collectivist ideas are at the forefront. In contrast to organized team or individual sports, competition often causes less stress. Instead of being called an extreme sport, an activity can be described as "adventure recreation" if it involves unusual thrills, physical hardship, or risks [17].

(S) Sports and Game

The scope of games and sports covers a wide range from traditional sports to the stage of play. Sports and game activities can be combined or combined into one. This matter makes sports activities feel more enjoyable and functioning for a person's physical and mental health. The scope of games and sports has several aspects: movement exploration, locomotor, non-locomotor, and manipulative skills [18]. Apart from that, he also learned about various kinds of sports, such as baseball, rounders, kippers, football, basketball, volleyball, table tennis, court tennis, badminton, and martial arts, as well as other activities.

2.2. Disability

Disability is when people with disabilities experience limitations in their activities due to physical or mental disorders. It is known that there are various types of disabilities, including the following:

Mental Disabilities: A person with mental disabilities is divided into two types, namely high mental disabilities and low mental disabilities. Someone who has a high mental disability is often known as an intellectually gifted person [19]. In this case, someone has intellectual abilities above the average person in general. In addition, people who have high mental disabilities have reliable creativity. For a person with low mental and intellectual capacity or IQ (Intelligence Quotient), a person is below the average human being in general. Now, at an ordinary cognitive level, it is divided into two groups: slow learners and children with special needs. Children who are slow learners generally have an IQ between 70-90, while children with special needs have an IQ below 70 [20].

Physical Disabilities: A person who has a physical disability is divided into four types, namely physical disabilities (paradise), visual impairment (visual impairment), hearing impairment (deaf), and speech disorder (mute disabled). Check out the detailed explanation below [21]. Physically disabled: someone with movement disorders caused by abnormalities in the neuromuscular (inability of the nervous system and muscles to function normally) and bone structure. Physical disability can be caused by illness, accidents that cause the loss of one of the body's organs, or paralysis. Blind: individuals who have visual impairments. Blind people can be divided into two groups: total blindness (blindness) and low vision. Deaf: individuals who have hearing impairments, either permanent or not permanent. Since their sense of hearing is impaired, people with hearing impairments have speech impediments, so they can be called interviewees. Impaired speech is someone who has difficulty expressing thoughts through verbal language (speaking), making it difficult to talk, even incomprehensible to others.

Multiple Disabilities: A person can experience more than one disability, both physical and mental disabilities. There are four categories of multiple disabilities: persons with physical disabilities, persons with intellectual disabilities, and persons with mental disabilities [22]. Persons with physical disabilities include people with quadriplegia, blindness, deafness, and speech impaired impairment. Meanwhile, people with intellectual disabilities experience impaired thinking due to below-average levels of intelligence, for example, slow learning, mental disabilities, and Down syndrome. For people with mental disabilities, they will experience disturbances in their thinking, emotional, and behavioral functions. This disability is divided into three types: psychosocial, experiencing schizophrenia to bipolar, and bipolar. Developmental disabilities affect the ability to

interact socially (autism and hyperactivity), and sensory disabilities experience disturbances in one of the five sense functions [23].

The term disability is often used by society to refer to people who have special privileges in their bodies, both physically and psychologically. Disability refers to someone who experiences limitations and has little difficulty carrying out daily activities. The constraints experienced by a person with a disability include physical and mental. Meanwhile, people with disabilities are people who have different abilities. Actually, definable is a more subtle mention of persons with disabilities. In its development, disability is used to replace the term disabled, which seems rude and demeaning to persons with disabilities. According to [6], people with disabilities are not disabled but only have abilities different from ordinary people. Other terms replace the word disabled, for example, the term people with special needs. This term is still related to disabled persons because they need assistive devices for daily activities.

3. Materials and Methods

3.1. Research Design

The researcher picked the experimental approach as the approach utilized in research with a one-group pre-test-post-test design, specifically experimental research conducted in only one group with saturated sampling [24]. The DR-GOS model can identify the potential of kids with impairments through a sports-based approach, according to research. Twenty people, or three schools for people with disabilities in the West Java region, Indonesia, constitute the total population spread across four regions, especially the Deaf category (PI) for deaf children. Total sampling is the method of sampling employed by researchers. Twenty children with disabilities were therefore included in the sample. Their ages range from 13 to 16 on average.

3.2. Procedures

In this section, the author describes several programs from the DR-GOS model that are adapted to children's growth, development, and abilities. This program starts by providing a solid foundation for children to learn highly complex skills. The stages of the DR-GOS model can be seen in the following table:

Table 1. Stages of the DR-GOS Program

Activity Category	Implementation of Activities
(D)	Manipulative movements by throwing, kicking, herding
	Spatial awareness and intelligence
	Child-designed invasion game learning
	Game Attack Vs Defend
(R)	Rhythmic motion learning, using slow rhythms to fast ones
	Kombinasi pola gerak lokomotor, non lokomotor dan manipulative.
	Use of props
(G)	Picture cards and audio-visual for the concept of static and dynamic gymnastic movements
	Form static and dynamic balance movements according to individual tastes
	Designing new movement systematics
	Analogy exercise strategy
(O)	Natural Learning Process Concept (physical and mental development)
	The concept of outdoor activities
	Environmental concept (ecological exploration)
(S)	Game Model (Group version of the game is oriented towards innovation and solving those tactical aspects in a game)
	Game of Attack and Defence (Attitude of responsibility, attitude of respect, and Cooperation)
	Game Mods
	Skill Mastery

Notes: Term D stands for Development activity games; R is Rhythmic activity; G is Gymnastics activity; O is Outdoor activity; S stands for Sports and games

Based on the stages of the DR-GOS program in Table 1 above, the program's primary focus is how the physical activities presented provide opportunities for children to move, practice, and compete. This matter is supported by programs that improve character, psychological, and physical condition. Children are more emphasized on meeting their needs as a whole; this is intended so that all components that support the growth and development of children can be formed as a whole and continuously, although in principle, children with disabilities have not been able to determine which way they can choose or determine their talents in sports. However, the task of researchers and trainers is to equip children with disabilities so that they can channel their talents by excelling in sports. This program can help them in terms of their social life; they are no longer closed off and feel less confident because, through their existence in several sports activities, they will be seen as the same, only they are unique.

3.3. Research Instrument

The instrument used in this study was the Gross Motor Development Test in children with disabilities who were the research subjects. The Test of Gross Motor Development (TGMD) provides a developmental framework for examining the performance of the twelve basic movement skills regarding the movement patterns used [25]. These skills are necessary for successful play in physical education and the playground, including locomotor skills (running, jumping, sliding, hopping, bouncing) and object control skills (hitting and kicking a stationary ball, dribbling, catching, throwing, and rolling). Locomotor skills require smooth, coordinated movements, whereas object control skills focus more on a child's ability to play with and manipulate a ball. TGMD-2 is standardized for children aged 3 to 10 years and 13 months. Normative data show that by age 10, most developing children can usually achieve all of the performance criteria for a given skill.TGMD-2 focuses on fundamental movement skills, assuming that once children have mastered these skills, they are ready to learn how to use them in more sport-specific activities, requiring the skills to be used in context [26]. The twelve movement skills included in TGMD-2 also reflect the skills taught in physical education. They are therefore considered as skills that will enable children with disabilities to participate in the pursuit of additional physical activity.

3.4. Statistical Analysis

The data was processed with the help of a statistical approach using SPSS series 19. The steps taken by the researcher were to look for initial data and compare it with the final data originating from the Test of Gross Motor Development (TGMD). Once the data is known, the next step is to look for the average and standard deviation of each test presented. Once the statistical description is known, the next test step is to test the normality of the data by taking the data results from Kolmogorov-Smirnov, which is then continued with hypothesis testing using one-way ANOVA.

4. Result

4.1. Data Descriptions

The following stage was to process and analyze the data to evaluate hypotheses after the data passed the test. The SPSS series 19 application processed the average value and standard deviation for the test of gross motor development. Table 2 shows the results:

Tabel 2. Skills Descriptive Statistics and TGMD-2 Subscales

Skill	Range	M	SD	ICC	95%CI
Run	0-8	6.34	1.48	.977	.969-.982
Gallop	0-7	7.21	1.65	.995	.989-.999
Hop	0-6	5.82	2.56	.990	.986-.995
Skip	0-8	5.59	1.77	.982	.978-.986
Horizontal jump	1-7	6.16	1.29	.985	.980-.989
Slide	0-8	5.20	1.50	.996	.992-.999
Total locomotor skills	19-39	36.32	6.16	.994	.988-.997
Two-hand strike of a stationary ball	2-9	7.34	1.70	.995	.990-.999
One-hand forehand strike of self-bounced ball	0-8	6.79	1.89	.988	.980-.992
One hand stationary dribble	0-7	5.83	1.63	.983	.979-.989
Two-hand catch	0-6	5.67	1.90	.992	.987-.998
Kick a stationary ball	0-9	6.44	1.58	.990	.980-.997
Overhand throw	0-6	5.81	1.43	.978	.970-.985
Underhand throw	0-7	6.12	1.77	.951	.948-.960
Total ball skills	12-47	44.01	6.89	.995	.993-.997
Total TGMD-2	47-100	80.35	12.34	.997	.995-.999

Notes: CI = confidence interval; ICC = intraclass correlations; M = mean; SD = standard deviation;

Based on the calculation results in Table 2 above, the average locomotor skill is 36.32, the standard deviation is 6.16, and the intraclass correlations are 0.994, with a confidence interval range of 0.988-0.997. For the total ability to master the ball, the average was 44.01, the standard deviation was 6.89, and the intraclass correlations were 0.995, with a confidence interval range of 0.993-0.997. At the same time, the TGMD-2 test results obtained an average of 80.35, a standard deviation of 12.34, and intraclass correlations of 0.997, with a confidence interval range of 0.995-0.999.

4.2. Normality Test Data

To ensure normality, an analysis of the collected data was performed. The normalcy test decides the next stage of testing. The parametric test should be performed if the data are normal; if not, the non-parametric test should be performed. The SPSS 19 for Windows was used to perform the Kolmogorov-Smirnov test for normalcy. The information for the normalcy test is shown in Table 3:

Table 3. Normality Test

	Kolmogorov-Smirnov[a]		
	Statistic	df	Sig.
TGMD-2	0,236	20	0,146

The results of the Kolmogorov-Smirnov test using Asymp.Sig (2-tailed) is shown in the data in Table 3 above. The TGMD-2 test result was 0.146. Since the data is usually distributed and Asymp.Sig is significantly more than 0.05, and it is possible to perform additional analysis using parametric statistics.

4.3. Results of Hypothesis Testing

Based on the previous normality test, which has been stated to have normally distributed data, the next test step is a parametric test using one-way ANOVA analysis. Table 4 below is the intended data exposure:

Table 4. Results of Hypothesis Testing Using One-Way ANOVA Analysis

Source	Type III Sum of Squares	df	Mean	Source	Sig.
Corrected Model	433.681[a]	5	80.3501	15.472	0.010
Intercept	209451.121	3	226228.201	62167.248	0.001
TGMD-2 (score)	23.182	12	3.236	.662	0.002
Error	217.482	4	5.277		
Total	2261339.156	20			
Corrected Total	344.251	16			
R Squared = 0.451 (Adjusted R Squared = .660)					

Based on calculating the difference in the average pre-test and post-test TGMD-2 data in Table 4 above, a P-value of 0.002 <0.05 is obtained. This condition means that H0 is rejected, thus proving that there is a difference between the average score on the pre-test and the post-test value. It can be concluded that the DR-GOS model significantly determines the sports talent of children with disabilities.

5. Discussion

Sport search talent guidance believes every child has sports talent [27], [28]. It means that each child can be directed to the sport most suitable among the existing sports. Following the physical characteristics of children, these children have the potential to develop specific sports talents. This paradigm will positively impact children because they are seen as having the potential to exercise. Sport is not only for confident children but for all children. This paradigm is closely related to the view that sport is a part of human life and needs. Children with disabilities are no exception; they have the right to have the same opportunities as other children regarding the need for physical activity or to show their sports talent.

Based on the results of hypothesis testing, the DR-GOS model has a significant impact on determining the sports talent of children with disabilities. The results of gross motor development tests show that through the Dr-GOS model, children tend to have more abilities related to the ability to coordinate movements when using a ball compared to locomotor skills. It can be a basis for consideration for teachers, parents, and caregivers so that children are given more opportunities for more intensive physical activity again, both independently and by joining fostered sports clubs. Children tend to have the coordination needed in big and small ball games, eye-foot and hand-eye coordination. Eye-foot coordination is needed because it will significantly support the mastery of the game. In contrast, eye-foot coordination is the basis for achieving high skills in dribbling, like in soccer [29], [30]. This condition becomes the basis for children to have the talent in sports they want.

The essence of the DR-GOS model is that children have a lot of experience learning motion, so they are trained very well and intensively. All intensive activities will produce something good and can quickly reach the goal [31]. All components of the child's physical condition develop well because, in development activity material, students are taught to have good cognitive abilities, demonstrating more self-confidence in children. The importance of cognitive abilities for children is so that children can develop their perceptual power based on what they see, hear, and feel so that children have a complete understanding and can train their memory of all events or events that have been experienced so that children can understand various symbols that exist in the world so that children can do reasoning both that occur naturally and scientific processes, and so that children can solve life's problems they face so that in the end they will become individuals who can help themselves [32], [33]. Suppose a child has cognitive abilities that do not develop according to his age stages. In that case, the child's cognitive abilities are hampered, allowing the child to be unable to think more complexly and unable to perform reasoning abilities, problem-solving, and other cognitive tasks [34]. Childhood is a particular period that is critical for building healthy self-esteem, self-image, and self-confidence. Children with problems, such as disabilities, may be especially prone to self-esteem issues. Part of the problem is that children with these special needs see the world differently than "normal" children. As a result, this can cause a lot of anxiety and frustration as they realize they have different limitations. Here, parents need to find ways to build trust in children with special needs. Confidence is always needed to think positively and be calm when facing challenges because we feel capable and believe we can get through these challenges [35]. By having self-confidence, we can accept the shortcomings that exist within us and maximize the strengths we have [36]. Through outdoor activities in the DR-GOS model, children with disabilities are provided with various things, from giving them the confidence to display every ability and skill without feeling doubtful or awkward. In this activity, they must also be good at getting along and socializing well; that way, weaknesses in psychological factors can be overcome well and quickly.

In rhythmic activities in the DR-GOS model, children learn good coordination skills. In gymnastic activities, children are taught courage and motor skills. Biomotor abilities and roles are needed in every sporting activity, whether practicing or competing [37], [38]. In outdoor activities, students have more calm, physical fitness, overall health, and spiritual refreshment because their activities tend to be in nature. Children with disabilities need a different atmosphere, a pleasant environment, and an atmosphere of beauty to feel natural relaxation [39], [40]. Children can develop and explore movement, locomotor, non-locomotor, and manipulative skills in games and sports activities. Children with hearing impairments need all basic movement abilities to understand quickly and master movement skills when learning techniques in several sports [41]–[43]. The DR-GOS model can provide unique experiences for children to develop their talents and abilities in sports so that, slowly but surely, this model can overcome psychological problems in children with disabilities, and they can be guided to determine what sports talents can then be carried out on an ongoing basis.

6. Conclusions

This study shows how the application of the DR-GOS model has succeeded in helping children with physical

impairment (PI) disabilities and deafness determine their talent for sports. It is hoped that this will help other disabled people determine their sporting talent, of course, with several different special instruments. This matter is necessary to support the existence of children with disabilities in the social life they deserve.

Acknowledgments

Children with disabilities, parents, chaperones, and trainers deserve a sincere thank you from the authors for volunteering their time, being personally involved, and participating in this research project.

REFERENCES

[1] G. Mulya, A. S. Lengkana, and R. Agustryani, "Tennbastech: A scientific approach to teach tennis," Int. J. Hum. Mov. Sport. Sci., vol. 9, no. 6, pp. 1371–1382, 2021.

[2] V. Ratten, "Coronavirus disease (COVID-19) and sport entrepreneurship," Int. J. Entrep. Behav. Res., vol. 26, no. 6, pp. 1379–1388, 2020.

[3] J. Lee and R. Spratling, "Recruiting Mothers of Children With Developmental Disabilities: Adaptations of the Snowball Sampling Technique Using Social Media," J. Pediatr. Heal. Care, vol. 33, no. 1, pp. 107–110, 2019.

[4] C. Hidayat et al., "Levelling System Model: Approach to Physical Literacy," Int. J. Learn. Teach. Educ. Res., vol. 21, no. 11, pp. 334–356, 2022.

[5] Š. Golubović, J. Maksimović, B. Golubović, and N. Glumbić, "Effects of exercise on physical fitness in children with intellectual disability," Res. Dev. Disabil., vol. 33, no. 2, pp. 608–614, 2012.

[6] Y. He, W. Sun, X. Zhao, M. Ma, Z. Zheng, and L. Xu, "Effects of core stability exercise for patients with neck pain: A protocol for systematic review and meta-analysis," Medicine (Baltimore)., vol. 98, no. 46, p. e17240, 2019.

[7] P. Giagazoglou, D. Kokaridas, M. Sidiropoulou, A. Patsiaouras, C. Karra, and K. Neofotistou, "Effects of a trampoline exercise intervention on motor performance and balance ability of children with intellectual disabilities," Res. Dev. Disabil., vol. 34, no. 9, pp. 2701–2707, 2013.

[8] A. Ginting, M. Asmawi, J. Tangkudung, Raswin, and A. S. Lengkana, "The effectiveness of learning freestyle swimming using the islamt2e based on static swimming tools," Int. J. Hum. Mov. Sport. Sci., vol. 9, no. 5, pp. 863–875, 2021.

[9] A. S. Lengkana, J. Tangkudung, and A. Asmawi, "The effectiveness of thigh lift exercises using rubber on the ability of acceleration on sprint runs," in Journal of Physics: Conference Series, 2019, vol. 1318, no. 1, p. 12031.

[10] T. Muhtar, T. Supriyadi, A. S. Lengkana, and S. H. I. Cukarso, "Character education in physical education learning model: A bibliometric study on 2011-2020 scopus database," Int. J. Hum. Mov. Sport. Sci., vol. 9, no. 6, pp. 1189–1203, 2021.

[11] K. Heyer, "The Paralympic Games," Japan Through Lens Tokyo Olympics, vol. 59, no. 3, pp. 81–87, 2020.

[12] A. Ak, A. Sra, and O. As, "Comparative effects of muscle energy technique and core stability exercise in the management of patients with non-specific chronic low back pain," J. Rom. Sport. Med. Soc., vol. XIII, no. 1, pp. 2860–2867, 2017.

[13] K. Hava, T. Guyer, and H. Cakir, "Gifted students' learning experiences in systematic game development process in after-school activities," Educ. Technol. Res. Dev., vol. 68, no. 3, pp. 1439–1459, 2020.

[14] J. Sun, Y. Liu, M. Baudry, and X. Bi, "SK2 channel regulation of neuronal excitability, synaptic transmission, and brain rhythmic activity in health and diseases," Biochim. Biophys. Acta - Mol. Cell Res., vol. 1867, no. 12, p. 118834, 2020.

[15] M. A. Ávalos-Ramos and L. Vega-Ramírez, "Gender differences in the level of achievement of gymnastic and acrobatic skills," Int. J. Environ. Res. Public Health, vol. 17, no. 19, pp. 1–9, 2020.

[16] Y. Kuang et al., "Association of outdoor activity restriction and income loss with patient-reported outcomes of psoriasis during the COVID-19 pandemic: A web-based survey," J. Am. Acad. Dermatol., vol. 83, no. 2, pp. 670–672, 2020.

[17] P. J. Chang, "Effects of the built and social features of urban greenways on the outdoor activity of older adults," Landsc. Urban Plan., vol. 204, p. 103929, 2020.

[18] L. L. Griffin, S. A. Mitchell, and J. L. Oslin, Teaching sport concepts and skills: A tactical games approach. Human Kinetics Publishers, 1997.

[19] I. D. Ebuenyi, A. J. van der Ham, J. F. G. Bunders-Aelen, and B. J. Regeer, "Expectations management; employer perspectives on opportunities for improved employment of persons with mental disabilities in Kenya*," Disabil. Rehabil., vol. 42, no. 12, pp. 1687–1696, 2020.

[20] I. D. Ebuenyi, E. S. Rottenburg, J. F. G. Bunders-Aelen, and B. J. Regeer, "Challenges of inclusion: a qualitative study exploring barriers and pathways to inclusion of persons with mental disabilities in technical and vocational education and training programmes in East Africa," Disabil. Rehabil., vol. 42, no. 4, pp. 536–544, 2020.

[21] C. H. Shirazipour, M. B. Evans, J. Leo, A. Lithopoulos, K. A. Martin Ginis, and A. E. Latimer-Cheung, "Program conditions that foster quality physical activity participation experiences for people with a physical disability: a systematic review," Disabil. Rehabil., vol. 42, no. 2, pp. 147–155, 2020.

[22] I. Strnadová and M. Nind, Belonging and people with profound intellectual and multiple disabilities: Pushing the boundaries. Routledge, 2020.

[23] X. Qian, D. R. Johnson, Y. C. Wu, J. LaVelle, M. L. Thurlow, and E. Davenport, "Parents' Postsecondary Education Expectations for Students with Autism, Intellectual Disability, and Multiple Disabilities: Findings From NLTS 2012," Res. Pract. Pers. with Sev. Disabil., vol. 45, no. 4, pp. 256–270, 2020.

[24] L. Vinet and A. Zhedanov, A “missing” family of classical orthogonal polynomials, vol. 44, no. 8. New York: McGraw-Hill Humanities/Social Sciences/Languages, 2011.

[25] E. Rey, A. Carballo-Fazanes, C. Varela-Casal, and C. Abelairas-Gómez, “Reliability of the test of gross motor development: A systematic review,” PLoS One, vol. 15, no. 7 July, p. e0236070, 2020.

[26] S. Kwon and M. O’neill, “Socioeconomic and familial factors associated with gross motor skills among us children aged 3–5 years: The 2012 nhanes national youth fitness survey,” Int. J. Environ. Res. Public Health, vol. 17, no. 12, pp. 1–14, 2020.

[27] P. Tortella, M. Haga, J. E. Ingebrigtsen, G. F. Fumagalli, and H. Sigmundsson, “Comparing free play and partly structured play in 4-5-years-old children in an outdoor playground,” Front. Public Heal., vol. 7, no. JUL, p. 197, 2019.

[28] J. Baker, N. Wattie, and J. Schorer, “A proposed conceptualization of talent in sport: The first step in a long and winding road,” Psychol. Sport Exerc., vol. 43, pp. 27–33, 2019.

[29] C. Author, A. Saad Abdul Hameed, M. Habeeb Sabhan, and W. Shamil Kamil, “A comparative study on the foot reaction time and hand eye coordination among the different positional footballer players,” Journalofsports.Com, vol. 16, no. 4, p. 4, 2021.

[30] G. Pandey, J. Acharya, and V. Pandey, “Comparison of coordinative and proprioceptive abilities among selected team games,” Int. J. Phys. Educ. Sport. Heal., vol. 7, no. 3, pp. 261–264, 2020.

[31] S. Knight and L. Fetters, “Clinical bottom line. Intensive motor skills training program combining group and individual sessions for children with cerebral palsy.,” Pediatr. Phys. Ther., vol. 22, no. 2, p. 160, 2010.

[32] P. Yaniawati, R. Kariadinata, N. M. Sari, E. E. Pramiarsih, and M. Mariani, “Integration of e-learning for mathematics on resource-based learning: Increasing mathematical creative thinking and self-confidence,” Int. J. Emerg. Technol. Learn., vol. 15, no. 6, pp. 60–78, 2020.

[33] P. S. Kavenuke, M. Kinyota, and J. J. Kayombo, “The critical thinking skills of prospective teachers: Investigating their systematicity, self-confidence and scepticism,” Think. Ski. Creat., vol. 37, p. 100677, 2020.

[34] J. O’Flaherty and M. Costabile, “Using a science simulation-based learning tool to develop students’ active learning, self-confidence and critical thinking in academic writing,” Nurse Educ. Pract., vol. 47, p. 102839, 2020.

[35] B. Paulina Espinosa-Rivera, “Self-Confidence and Anxiety as Intervening Factors in Clinical Decision-Making in Newly Nursing Bachelor Graduates,” Am. J. Nurs. Sci., vol. 8, no. 2, p. 59, 2019.

[36] A. S. Lengkana, A. A. Rahman, M. N. Alif, G. Mulya, A. Priana, and D. B. Hermawan, “Static and dynamic balance learning in primary school students,” Int. J. Hum. Mov. Sport. Sci., vol. 8, no. 6, pp. 469–476, 2020.

[37] G. Tabacchi et al., “Field-based tests for the assessment of physical fitness in children and adolescents practicing sport: A systematic review within the ESA program,” Sustain., vol. 11, no. 24, p. 7187, 2019.

[38] K. Shahnaz et al., “Comparative study of selected motor abilities and body mass index of basketball and handball players,” ~ 67 ~ Int. J. Physiol., vol. 4, no. 1, pp. 67–70, 2019.

[39] C. Roberts-Yates and D. Silvera-Tawil, “Better education opportunities for students with autism and intellectual disabilities through digital technology,” Int. J. Spec. Educ., vol. 34, no. 1, pp. 197–210, 2019.

[40] F. Garzotto, M. Gelsomini, M. Gianotti, and F. Riccardi, “Engaging children with neurodevelopmental disorder through multisensory interactive experiences in a smart space,” Internet of Things, vol. 0, pp. 167–184, 2019.

[41] Z. Soori, A. Heyrani, and F. Rafie, “Exercise effects on motor skills in hearing-impaired children,” Sport Sci. Health, vol. 15, no. 3, pp. 635–639, 2019.

[42] J. L. Tapia-Fuselier and D. C. Ray, “Culturally and linguistically responsive play therapy: Adapting child-centered play therapy for deaf children,” Int. J. Play Ther., vol. 28, no. 2, pp. 79–87, 2019.

[43] R. Torppa and M. Huotilainen, “Why and how music can be used to rehabilitate and develop speech and language skills in hearing-impaired children,” Hear. Res., vol. 380, pp. 108–122, 2019.