

MANIPULATIVE MOVEMENT SKILLS OF CHILDREN WITH INDEPENDENCE

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Journal Info

Jurnal Pendidikan Glasser

p-ISSN : 2579-5082

e-ISSN : 2598-2818

DOI : [10.32529/glasser.v7i2.2514](https://doi.org/10.32529/glasser.v7i2.2514)

Volume : 7

Nomor : 2

Month : 2023

Keywords:

skill ; Manipulative motion ;Mentally disabled

Abstrak.

Manipulative skills are modified to create movement skills for students with special needs who are mentally disabled in SLB Huntap Palu. The aim of the research was to determine the manipulative movement skills of students with special needs who are mentally retarded at SLB Huntap Palu. The research methodology is a quantitative methodology with a descriptive analysis approach. Purposive sampling technique was used to select a sample of 12 students in the study, all of whom experienced mental disorders. This research testing includes a ball throwing test. Data analysis shows that: manipulative movement skills and ball throwing skills in mentally retarded children total 10, when included in the formula the result is 60%; Based on the score category guidelines, the ball throwing game for mentally retarded children is included in the high category. According to the standard score category, the ability to catch the ball in mentally retarded children is included in the high group. Deaf children have a ball catching ability level of 15, which if entered into the algorithm will give a result of 75%. The conclusion of the research is that the manipulative movement skills of children with special needs at SLB Huntap Palu are in the good category.



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A. INTRODUCTION

Students are objects that need to grow both physically and spiritually, and this growth can be accomplished through physical education. In 2016 (Giri Wiarto). Physical education as a whole involves learning through practice.

Sports and health physical education are taught through adaptive physical education, which modifies learning in terms of content, learning environments, game rules, and assessment. (Taufan, Fitri, and Rafmateti 2019). Students that encounter challenges and limits are known as children

with special needs, and they are also expected to benefit from physical education in schools (Haris, Fahmil. Fahd Mukhtarsyaf 2019). The goal of adaptive physical education is to identify and address issues in the psychomotor domain. It is a comprehensive service delivery system (Ramdan Pelana, Nadya Dwi Oktafiranda, and Rizka Antoni 2020). Based on the characteristics of children with special needs (ABK) disabilities, adaptive physical education is created. (Taufan et al. 2019) asserted that the scope of physical, sporting, and health education for kids with disabilities and

special needs is very vast. Physical activity helps mentally impaired children strengthen their coherence and competence. (Ozdemir, Ilkim, and Tanir 2018). 01 (Puspitaningsari 2022).

To promote aspects of physical fitness, movement abilities, critical thinking, social, logical, emotional, moral, and healthy lifestyles, adaptive bodily learning is a crucial component of education. Games are one of the numerous ways adaptive physical education, sport, and health learning are done (Widianto and Indahwati 2020).

To promote aspects of physical fitness, movement abilities, critical thinking, social, logical, emotional, moral, and healthy lifestyles, adaptive bodily learning is a crucial component of education. Games are one of the numerous ways adaptive physical education, sport, and health learning is done. In terms of their physical, mental, and social development, children with special needs exhibit irregularities or deviations from the norm (Abdullah and Nandiyah 2013).

Children with mental retardation have intellectual functioning that is below average, which makes it difficult for them to adapt to their surroundings (Arifin 2017). (Hakim 2015) mild, moderate, and severe mental retardation are the three categories used to describe the traits of children with mental retardation. (Denisrum 2007) divides the four intelligence levels of mentally retarded children, namely 1) mildly mentally retarded children have an IQ of 70-55, 2) mildly mentally retarded children have an IQ of 55-40, 3) mildly mentally retarded children have

an IQ of 40-25, 4) mildly mentally retarded children have an IQ <25.

From birth through adulthood, motor skills start to develop. Training for good mobility abilities should begin in early life. Children's movement abilities can be developed through classroom instruction. Children with mental retardation can enhance their mobility abilities through adaptive physical education and various forms of play. (Widianto and Indahwati 2020) said that the main purpose of giving games to children with disabilities is to help them develop a sense of self-confidence, sensitivity to intelligence and to optimize their gross motor skills. Children in elementary school should learn to coordinate their movements for activities including running, jumping, throwing, catching, and keeping balance (Kiranida 2019).

Manipulative skill is an action that is performed concerning outside objects and is modified to create a movement skill. (Hendra and Putra 2019) . The ability to manipulate an object through hitting, throwing, catching kicks, and rolling (Martinus and Kesumawati 2020). Developing manipulative motion is the ability to move items while manipulating them (Kastrena et al. 2020). Manipulative motion games can improve student learning concentration (Nurunnabilah, Abdul Gani, and Gustiawati 2022). Manipulative movements can improve children's fine motor skills (Damayanti, Palupi, and Nurjanah 2020). According to (Rahma and Kastrena 2020) explain children's manipulative movement abilities through

games using bottle bowling. Ball-based games can help kids establish their fundamental manipulating motions (Salam 2021) (Imani, Muslihin, and Elan 2020). The variety of play activities carried out by children contributes to manipulative movement skills (Palupi Ardanari 1, Edy Mintarto 2, Abdul Rahman Syam Tuasikal 3 2020) To help students comprehend and perform the movements, the manipulative movements are taught following the course material (Muhammad Harliawan Nur Indah Atifah Anwar 2022)

SLB Huntap Palu has a total of 65 students. And most of the students are children with special needs who are mentally retarded. Physical learning activities are one of the learning processes for each student. In the results of movement learning, there are differences where the movement skills of children with special needs at SLB Huntap Palu are different. So research is needed to be able to see how good students' skills are, especially mentally disabled children.

B. RESEARCH METHODS

This study falls under the category of quantitative research, which focuses on the efforts made by researchers to gather numerical data. These numerical data are later processed using statistical work formulas and derived from operationalized variables using specific measuring scales like nominal, ordinal, interval, and ratio.

A plan for data collecting, measurement, and analysis that is based on the study's research questions is known as a

research design. The quantitative research method stresses objective phenomena and uses numbers to study them. Numbers, statistical analysis, structure, and controlled experiments were used in the research design.

The population, following constitutes the entire research topic (Arikunto 2017). The population is the entire research subject. The population that was the subject of the study was 65 students from SLB Huntap Palu. The sampling technique in this study was purposive sampling. Based on the specified criteria, namely being able to move and having the ability to move. So after carrying out the research, a sample of 10 samples was obtained based on the specified criteria. The test instrument used to measure manipulative movement skills in Huntap Palu SLB students is a physical test. The test instruments used in this study were: (1) jump test, 2) jump test. The data analysis technique used in this study was the descriptive analysis technique. The following is the formula used by researchers in conducting research after determining the percentage (%) of the respondents' achievements, then the next step is to group the respondents' answers into several categories.

$$NP = \frac{R}{SM} \times 100\%$$

Information:

NP: Percent value sought or expected

R: Raw scores obtained by students

SM: Maximum score

100% : Fixed number

C. RESULTS AND DISCUSSION

Based on research that has been conducted at Huntap Palu special schools (SLB) using 12 student samples, the following results are obtained: Throwing Motion

Based on research on throwing motion, the movements observed in position 1, namely the position of the feet in a position such as stepping and the arm used to throw opposite the stepping foot, students do it accordingly, and in positions 2 to 5 students do it inappropriately. So that the total score of throwing the ball for mentally retarded children is 2, when it is included in the formula, the result is 60%, based on the score category guidelines, throwing the ball for deaf children is in the high category. Can be seen in the Figure 1 histogram below.

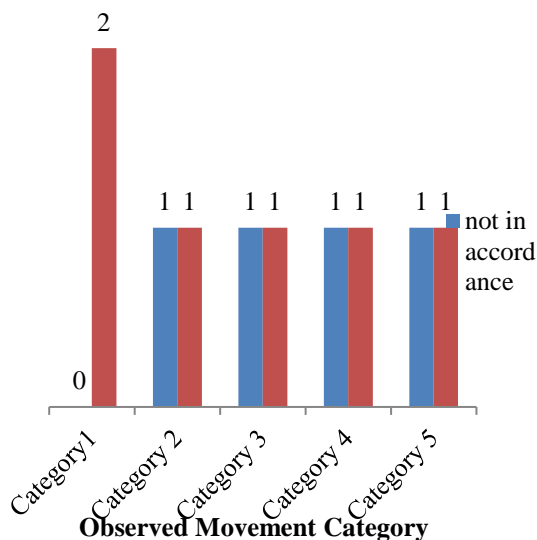


Figure 1: Histogram of Throwing Ball Percentage

Catching the ball

Based on research on the motion of catching the ball, the movement observed in position 1 is the position of the two feet

parallel and apart, students do it accordingly, in positions 2 and 3, student 1 makes the appropriate movement, while student 2 does the movement inappropriately, in position 4 both arms are extended when reaching for the ball, the two students make inappropriate movements, and in position 5 pulling the arms in/back so that the ball does not pass, student 1 does it properly while student 2 does it inappropriately. So the total score of catching the ball skills in deaf children is 15, when it is included in the formula, the result is 75%, based on the score category guidelines, catching balls in deaf children is included in the high category. Can be seen in the Figure 2 histogram below.

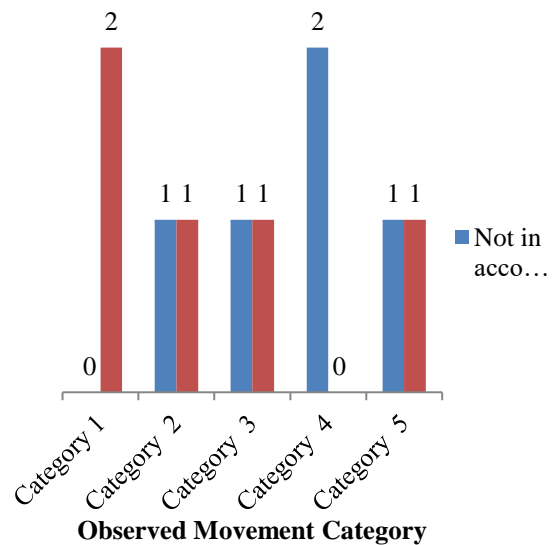


Figure 2: Histogram of Motion Percentage of Catching Ball

The results of the research above-obtained data that differed in terms of physical condition. Factors that affect physical condition are training programs from athletes that are systematic and carried out repeatedly. Excellent physical condition

and a strong mentality can affect athlete performance (Sundara et al. 2020).

Physical condition is one of the indispensable requirements in any effort to increase the achievement of an athlete, it can even be said that the basic starting point of an achievement sports prefix. To achieve the level of physical condition as expected, continuous training is needed (Syaifuddin, Muhammad Azis Hakim 2019)

After applying the results of the study using 5 items of physical condition in sepak takraw (STC) athletes, in this study, the researcher will explain the results of the study. Speed is the body's ability to move quickly and precisely against heavy loads and time (Alfiandi, Ali, and Wardoyo 2008). For the results of the 60-meter running speed test, the average athlete gets a value (of 8.05 seconds) with sufficient criteria, then (Suhartiwi, 2018)

Flexibility is the range of motion of the joints of the body. for the results of the flexibility test the average athlete gets a score (35 cm) with good criteria (Arjuna 2019). Explosive power is the force or tension that can be generated by a muscle or group of muscles in a contraction with a maximum load or one time of maximum loading. for the results of the explosive power test, the average athlete gets a score (48 cm) with sufficient criteria.

(Ruslan 2011) agility is. Agility is a person's ability to change the direction of a certain body position. And for the agility test, the average athlete gets a score (14 seconds) with very good criteria. Endurance is the

ability and ability of the body to carry out sports activities for a long time without experiencing significant fatigue. (Indrayana and Yuliawan 2019) for the endurance test, the average athlete gets a score (7.7 minutes) with good criteria.

The movement skills of throwing the ball in deaf and mentally impaired children at SLB Huntap Palu are in the category of movement skills in throwing a ball that is not by children in general. Throwing is a complex gross motor skill in which different body parts are involved in coordination with other body parts to produce a transfer of force to the ball.

In the throwing motion, the body position is oblique towards the arm that is used to throw the ball, the arm that is used to throw the ball from behind the head with the elbow bent and releasing the ball diagonally to the side of the body that is not used to throw the ball by rotating 90°. In the acquisition of a total score on the movement skills of throwing the ball in deaf children it is in the high category, namely 60%, and mentally impaired children are in the high category, namely 61.67%.

The movement skills of catching the ball in deaf and mentally impaired children at SLB Huntap Palu are in the category of movement skills of catching the ball leaning forward, the eyes following the direction the ball is coming from, catching the ball by adjusting the size of the object, then catching the object by pulling the arm in to defend the object or ball so that the ball does not pass. The acquisition of scores on the performance

of movement skills to catch the ball by children with special needs for the deaf are in the high category, namely 75% and the mentally impaired are in the very high category 85%.

Based on the research results in the initial measurement, the average result of the coordination of manipulative movements was 8.63, then in the final test measurement, the average result was 12.5, so there was a difference of 3.87. thus it can be concluded that the coordination of manipulative movements in SDLB Huntap Palu students is good.

D. CONCLUSION

Based on the results of the research that has been done, it was found that: In the manipulative movement skills of children with special needs, the deaf and mentally impaired are in the inappropriate category, whereas in the motion skills of throwing a ball, the deaf and mentally impaired children are in the high category, namely 60% , and 61.67%. In the motion skills of catching the ball, children with special needs who are deaf are in the high category, namely 75%, while those with mental retardation are in the very high category, namely 85%. From the description above it can be seen that the manipulative movement skills of children with special needs (ABK) SLB Huntap Palu are in the category of manipulative movement skills with each sub-motion skill, both manipulative movement skills based on the form of the movement skill stage.

E. REFERENCE

- Abdullah, and Nandiyah. 2013. "Mengenal Anak Berkebutuhan Khusus." *Magistra* 25(86):1–10.
- Arifin, Muhammad Zainal. 2017. "Pengaruh Modifikasi Permainan Lempar Tangkap Bola Terhadap Koordinasi Gerak Manipulatif Anak Tunagrahita." *Jurnal Kesehatan Olahraga* 7(3):35–39.
- Arikunto, Suharsimi. 2017. *Pengembangan Instrumen Penelitian Dan Penilaian Program*. Cetakan I. Yogyakarta : Pustaka Pelajar.
- Damayanti, Fery, Warananingtyas Palupi, and Novita Eka Nurjanah. 2020. "Peningkatan Kemampuan Motorik Halus Melalui Gerak Manipulatif Anak Usia 4-5 Tahun." *Kumara Cendekia* 8(2):126. doi: 10.20961/kc.v8i2.39744.
- Denisrum, Ratrie. Dinie. 2007. "Psikologi Anak Berkebutuhan Khusus." *Depdiknas* 1–149.
- Giri Wiarto. 2016. *Media Pembelajaran: Dalam Pendidikan Jasmani*. Cet. Ke-1. edited by Claksitas. Yogyakarta.
- Hakim, Arif Rohman. 2015. "Pengaruh Keseimbangan Dan Tingkat Usia Anak Tunagrahita Mampu Didik Terhadap Kemampuan Motorik Kasar." *Jurnal Ilmiah PENJAS* 1(1):36–48.
- Haris, Fahmil. Fahd Mukhtarsyaf, Liza. 2019. "Pengembangan Model Pembelajaran Motorik Berbasis Media Audio Visual Bagi Siswa SDN Di Kecamatan Kuranji Padang." *Jurnal Stamina* 53(9):11.
- Hendra, Jhony, and Ghazali Indra Putra. 2019. "Mengembangkan Keterampilan Gerak Dasar Manipulatif Bagi Anak Melalui Permainan Olahraga Di Taman Kanak-Kanak." *Jurnal Muara Pendidikan* 4(2):438–44. doi: 10.52060/mp.v4i2.181.

- Imani, Rifa Auliya, Heri Yusuf Muslih, and Elan. 2020. "Permainan Bola Terhadap Perkembangan Gerak Manipulatif Anak Usia 4-5 Tahun." *PAUD Agapedia* 4(2):273–84.
- Kastrena, Ervan, Adang Suherman, Amung Ma'mun, Eka Nugraha, and Lutfi Nur. 2020. "Long Jump Ability: A Comparison Between Students with High and Low Physical Fitness." *21(Icsshe 2019)*:311–13. doi: 10.2991/ahsr.k.200214.082.
- Kiranida, Oktafiana. 2019. "Memaksimalkan Perkembangan Motorik Siswa Sekolah Dasar Melalui Pelajaran Penjaskes." *Jurnal Tunas Bangsa* 6(2):318–28.
- Martinus, Martinus, and Selvi Atesya Kesumawati. 2020. "Pelaksanaan Permainan Gerak Dasar Manipulatif Pada Anak Tunagrahita Di Sdlb C Kota Palembang." *Kinestetik* 4(1):117–21. doi: 10.33369/jk.v4i1.10574.
- Muhammad Harliawan Nur Indah Atifah Anwar. 2022. "Kata Kunci : Pembelajaran, Gerak Manipulative MANIPULATIVE MOVEMENT LEARNING SURVEY IN PHYSICAL EDUCATION LEARNING FOR STUDENTS OF SDN UNGGULAN BONTOMANAI." 330–41.
- Nurunnabilah, Nurunnabilah, Ruslan Abdul Gani, and Resty Gustiawati. 2022. "Pengaruh Permainan Gerak Manipulatif Terhadap Konsentrasi Belajar." *Jurnal Porkes* 5(2):498–509. doi: 10.29408/porkes.v5i2.6109.
- Ozdemir, Mehmet, Mehmet Ilkim, and Halil Tanir. 2018. "The Effect of Physical Activity on Social Adaptation and Skills Development in Mentally Disabled Individuals." *European Journal of Physical Education and Sport Science* 4(1):64–71. doi: 10.5281/zenodo.1146903.
- Palupi Ardanari 1, Edy Mintarto 2, Abdul Rahman Syam Tuasikal 3, Suroto4. 2020. "Gelanggang Pendidikan Jasmani Indonesia." *Gelanggang Pendidikan Jasmani Indonesia* 3(2):82–90.
- Puspitaningsari, dkk. 2022. "Pengaruh Modifikasi Bermain Bola Bocce Terhadap Kemampuan Melempar Pada Siswa Tunagrahita Sedang." *Jurnal Porkes* 5(1):231–44. doi: 10.29408/porkes.v5i1.5721.
- Rahma, Alawiyah, and Ervan Kastrena. 2020. "Peningkatan Kemampuan Gerak Manipulatif Melalui Permainan Bowling Botol." *Maenpo* 9(2):48. doi: 10.35194/jm.v9i2.908.
- Ramdan Pelana, Nadya Dwi Oktafiranda, and Rizka Antoni. 2020. "Pemahaman Pelaksanaan Pendidikan Jasmani Adaptif Di Sekolah Luar Biasa Ditujukan Untuk Team Pengajar." *PERDULI: Jurnal Pengabdian Kepada Masyarakat* 1(01):32–37. doi: 10.21009/perduli.v1i01.17871.
- Salam, Abdul. 2021. "Open Access Open Access." *Citizen-Based Marine Debris Collection Training: Study Case in Pangandaran* 2(1):56–61.
- Taufan, Johandri, Resvi Fitri, and Rafmateti Rafmateti. 2019. "Implementasi Pembelajaran Pendidikan Jasmani Adaptif Bagi Siswa Tunarungu Di SLB Negeri 2 Padang Melalui Penugasan Dosen Di Sekolah." *Jurnal Pendidikan Kebutuhan Khusus* 3(2):31. doi: 10.24036/jpkk.v3i2.546.
- Widianto, Bagus Satria, and Nanik Indahwati. 2020. "Peningkatan Keterampilan Motorik Kasar Anak Disabilitas Grahita C-1 Melalui Permainan Halang Rintang." *Jurnal Pendidikan Olahraga Dan Kesehatan* 08(01):253–56.