

The Effect of Adaptive Physical Education toward Confidence of Blind Children

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ABSTRACT

Blind children or children with visual impairment is an individual with visual impairments that cause an individual's mobility and psychological impact. The aim of this research to know the effect of adaptive physical education to improve the confidence of children with visual impairment. This research was using experiment approach with one group pretest-posttest research design. The sample of this research totally 8 children with visual impairment. The data collection was using attitude scale. The instrument data validity was using content validity test then continued examine the instrument once. The examination result then was analyzed using moment product from Kearsley Pearson with help from SPSS 23. The instrument reliability test was using Alpha-Cronbach formula with help of SPSS 23. The data analysis technique was using non-parametric marked rank test analysis. The research result showed adaptive physical education can improve confidence of children with visual impairment.

Keywords

Adaptive Physical Education, Confidence, Children with Visual Impairment

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Introduction

Talking about self-confidence, many of us are still taboo about self-confidence. When talking about confidence, it is very important because it can determine achievement regardless of cognitive abilities and self-confidence affected by several factors (Efklides & Misailidi, 2010). Self-confidence involves many aspects such as self-awareness or personal belief in self skills, talents, abilities, competences, judgments and qualities (Hughes, Kinder, & Cooper, 2018). There are also many things affecting a person's self-confidence including ability, motivation, persistence, feelings of helplessness and inhibition (Mafakheri, Rostamy-Malkhalifeh, Shahvarani, & Behzadi, 2013). Self-confidence has a positive relationship with anxiety levels (Marshall & Gibson, 2017). There is a research which states that the higher self-confidence, the lower the level of bullying a person gets (Tilindienė & Gailiūnienė, 2013). In conclusion, it can be seen that the importance of self-confidence in a person. The lack of self-confidence in someone will give a negative impact on the future.

Confidence problems can occur to anyone, including children with special needs or people with disabilities. Lack of knowledge about their disability causes negative views to develop

towards persons with special needs which have an impact on discrimination and social exclusion (Morgan & Lo, 2013). The existence of discrimination against persons with special needs affects their self-confidence. There are many people with special needs who experience discrimination and bullying including people with physical disabilities like visually impaired persons. 1 from 6 children with visual impairment experience bullying which causes low levels of self-efficacy affecting on children's self-confidence and life satisfaction (Audun Brunes, Morten B Nielsen, 2018). The existing social conflicts greatly affect a person's self-confidence (Octaviana, Firman, & Daharnis, 2018). In addition, individuals with visual impairment will withdraw from the group because of problems in social skills resulting from their disability (Octaviana et al., 2018). The importance of self-confidence can help individuals with visual impairment to develop their self-images (Jameel & Shamim, 2019).

Internal factors for people with visual impairment can also be other factors that affect their self-confidence. People with visual impairment have to struggle completing functional tasks without achieving a minimum level of physical fitness and mobility through physical activity (Columa,

Dillon, Norris, Dolphin, & McCabe, 2017). Failure to achieve these functional tasks can make persons with disabilities more likely to be less optimistic and less confident. On the other hand, the existence of self-confidence can strengthen self-motivation because self-confidence greatly affects someone's motivation (Melnikova, 2018). The existence of these problems makes it important to provide an intervention or a system of care that leads to psychological disorders of vision. The increasing interest in knowledge and understanding the concept of self-confidence and implementing a series of psychological actions aimed at developing personality can be used as recommendations for increasing self-confidence (Adolescenti, Paladi, & Cuconașu, 2016). The lack of physical activity in people with special needs can be an alternative in increasing self-confidence. According to (Julio et al., 2018) physical activity is good in improving health of the body which is associated with quality of life such as the perception of the physical domain, psychological, emotional and social benefits. In addition, the existence of physical activity can reduce depression and mental health disorders (Rosenbaum, Tiedemann, Ward, Curtis, & Sherrington, 2015).

Adaptive physical education is one of the physical activities that can be conducted by people with special needs. Adaptive physical education is a comprehensive service of delivery system designed to identify, find, and solve problems in the psychomotor realm. Research conducted by (Kirimoglu, Cokluk, İlhan, & Öz, 2016) for 10 weeks found that children with special needs feel positive changes with regular sports or physical education activities. In addition, adaptive physical education has an effect on the mental health of person with special needs (Evseev, 2018). Based on this statement, the researcher use adaptive physical education as a way to increase the confidence of people with visual impairment and increase the motivation of people with visual impairment. It is expected that the increased self-confidence of people with visual impairment can improve their quality of life. This study has a hypothesis that adaptive physical education will

have a positive impact on the self-confidence of people with visual impairment.

Methodology

Participants

This study used 8 high-grade blind students in special schools. The considerations in choosing a subject here are children who have visual impairment, find it difficult to adjust to environmental conditions well, the subject is a high class student and has a low level of self-confidence.

Measures

This study used the attitude scale measurement technique. The researcher used attitude scale because this research measures attitude so it has to use attitude scale. The attitude that will be measured here is self-confidence so that it uses an instrument in the form of a confidence scale. The type of scale model used is the Likert scale which is based on aspects of self-confidence. The validity and reliability of the instrument to be used are tested. The trust scale used in this study is based on aspects of self-confidence according to Lautser, including self-confidence, optimism, objective, responsibility, rational, and realistic. There are three stages of the instrument that are the stage of composing a self-confidence attitude scale lattice for blind children consisting of 89 items. For content validation, it was tested by validator expert. There are a few sentences that must be repaired and 2 items should be omitted. Furthermore, with the revised results, each tryout was measured using a 4-point Likert scale (very appropriate, appropriate, inappropriate, very inappropriate). The test results were analyzed using the Product Moment Correlation from Karl Pearson. Based on the analysis, there are 57 invalid items from 87 items of validity instrument. In the instruments, 37 items are valid but only 35 items were used in order to facilitate the process of calculating the results. The reliability of this instrument used the Alpha-Cronbach coefficient with the result of 0.748. It can be concluded that the confidence scale is reliable enough to measure the research variables.

Design and procedures

In this study, a quantitative research design and experimental method were used. There were several forms of experimental design used in the study and this study used pre-experimental design. The form of the pre experimental design itself has several types and this study used one group pretest-posttest because the experiment was conducted in one group only without a comparison group. The data obtained from the pretest and posttest was in the form of confidence level values. It was processed using the non-

parametric Wilcoxon signed rank test statistic with the use of SPSS 23. The reason for using this analysis was because it was adjusted to the type of experimental data.

Results

The pretest and posttest were tested on students to find out the comparison before being given treatment and after being given treatment. Table 1.1 shows the results of the pretest and posttest.

Table 1.1 pretest and posttest results

No	Students' (initial)	Name	Pretest	Posttest
1	Ya		89	99
2	Ir		82	94
3	Al		92	98
4	Me		88	98
5	Mu		93	110
6	De		90	100
7	Mut		88	87
8	Ge		75	75

From these results then it was analyzed using the Wilcoxon Signed Ranks Test. This analysis aims to determine the change or improvement in the result of student self-confidence assessment before or after being given treatment using

adaptive physical education. Below, there are the results of calculating the average value and standard deviation of the average Wilcoxon Signed Ranks Test using SPSS version 23:

Table 1.2 Descriptive Statistics

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Pretest	8	75.00	93.00	87.1250	5.91457
Posttest	8	75.00	110.00	95.1250	10.34322
Valin N (listwise)	8				

Based on the description of the data, it is known that the average value of 8 blind children at pretest was 87.125 with the standard deviation of 5.91457 while the average self-confidence value of 8 blind children at posttest was 95.125 with a standard deviation of 10.34322. The difference in the acquisition value of students from the pretest and posttest proves the effect of adaptive physical education on children's self-confidence before and after treatment. After calculating the ranking from the pretest and posttest value data, the obtained data are Wilcoxon Signed Ranks Test (Z) value = -2.213 with Asymp. Sig. (2-tailed) = 0.027. The

probability value in Z count is then compared with the predetermined probability, that is $\alpha = 0.05$. From the calculation, the probability level used is 0.05, which means the level of truth of the calculation is 95% and there is a significant difference. The p value of 0.027 which is smaller than the probability of 0.05 indicates that the hypothesis can be accepted.

Discussion

Visual impairment in children can caused some difficulties in activity or in mobility. The impact of lack of children's mobility can affected to the psychologist problem from children. The result of

research conducted by (Mambela, 2018) concluded that emotional reaction happened in children with visual impairment as impact of limitations in mobility will have a negative impact on a child's personality such as inferiority, low self-esteem, lack of even self-confidence and withdraw from relationships. Children with visual impairment also have low participation in most areas of life compared to their peers (Ghanbari, Ghasemi, Evazzadeh, Tohidi, & Jamali, 2016). And it can be concluded that people who lack confidence will withdraw from social interactions due to the fear of the individual (Rachmat, 2011). Withdrawal from social interaction and low participation in children with visual impairment makes the condition of feeling loneliness in children increased, the prevalence of loneliness in children with visual impairment is 28.7% of the population (Brunes, Hansen, & Heir, 2019). Those impacts are supported with the social representation from the ability of children with visual impairment which most stereotype, visual impairment considered as one of the most difficult human conditions (Daniela, 2019). Social representations other than assumptions occur in other forms such as bullying. In meta-analysis data (Pinquart, 2017) from 7 studies that involved people with visual impairment shown that children with visual impairment have risks of 80% bigger to experienced bullying than their peers that not experienced visual impairment. From the data collected from (Audun Brunes, Morten B Nielsen, 2018) there are 65,1% of bullying victim with visual impairment. Further, from the research conducted to some the children with visual impairment, they have low self confidence.

The previous explanation reinforces the presence of mobility difficulties in children with visual impairments affecting several aspects of life and self-confidence of children. Self-confidence is an important aspect that influences human personality and life. According to Maslow (Pradipta & Sarastika, 2014) self confidence is a basic thing for self actualization and self potential development and belief to the self ability. Based on research (Vanaja & Geetha, 2017) belief in the success and failure of individuals is controlled by

the behavior of the individual itself as the feeling of belief that can complete a task or goal throughout life. This can be associated to the success of children with visual impairments who are less able to actualize themselves due to the impact of their lack of self-confidence.

Seeing the confidence of children with low visual impairment, the researcher used adaptive physical education as one of the method to improve the confidence of children with visual impairment. Adaptive physical education is similar to another physical education in general; adaptive physical education has a comprehensive characteristic where the service delivery was designed to identify, discover and solve the problems in psychomotor domain (Yani & Tiswara, 2013; Saddhono & Rohmadi, 2015). According to (Putra, 2013), the aim of adaptive physical education is to develop the children's potentials and skills by designing the adaptive physical education program wholeheartedly. As stated in the research done by (Myint et al., 2016), a shooting athlete with visual impairment was still able to optimize his hearing to be able to do a modified shot. In this research, the adaptive physical educations used were games and some modified physical exercises which were suitable with the children's barrier. However, there is a research which stated that adaptive physical education is still unable to improve the confidence of children with visual impairment because they are in the inclusive environment (Haeghele, Hodge, Zhu, Holland, & Wilson, 2019). It can be happened because the children is still unable to fully participate in physical activities, as stated in the research done by (Woodmansee, Hahne, Imms, & Shields, 2016), that the percentage of physical activities done by the children with special needs is tend to be self-participation and avoid groups because of the differences they have. However, in this research, the setting was done in a special school for children with visual impairment, and the result shows that the children's confidence is improved after doing the adaptive physical education exercise. This result is also proved in a research (Hayden, 2016; Saddhono et al, 2019), that children with special

needs who carry out physical activities that can be in the form of adaptive physical education have more positive effects such as sense of independence and a mood that affect the quality of their life, physical development and psychosocial. Another research done by (Paravlic et al., 2015), stated that exercise programs that are done in around 8 weeks in the duration of two or three times have a beneficial effect and lead to functional improvement, motor, and physiological characteristics towards children with visual impairment. Besides, the reward towards children with special need's achievement in physical activities or adaptive education can be a motivation for them, the achievement here can be their involvement in Paralympic event or special treatments from the government (Houlihan & Chapman, 2017). Paralympic event always re-upgrade their physical activities and classifications for children with special needs including the children with visual impairment (Ravensbergen, Mann, & Kamper, 2016). This can be a guideline for educators in order to improve the confidence of children with visual impairment in various ways including practicing physical activity. So, it can be concluded that adaptive physical education can improve the confidence of children with visual impairment by paying attention to several conditions and settings used in the children.

Confidence problems have many factors especially in blind children because all of the factors are not only born from the surrounding environment. The factor within the blind children is also undeniable. Anxiety that arises because of the spirit of competence with themselves can affect their self-confidence (Kang & Jang, 2018). Therefore in this study, it can still be developed again about the factors affecting the confidence of blind children.

Conclusion

Self-confidence is one of the important things that must be developed within oneself. Good self-confidence will affect performance and the method of socializing with the environment. Without good self-confidence, life will be seized with anxiety, fear of the environment, and lack of

self-expression. Based on the explanation above, it is necessary to increase self-confidence especially for children with special needs.

Physical activity for some blind children is a frightening specter. Therefore, it needs to be taught so that children are more acquainted with and willing to learn to leave fear and anxiety. Adaptive physical education is an alternative physical activity that can be done by blind children because it has been modified in such a way that it can be done by blind children. When children get to know and learn something, they will get used to it so that they will be more confident in doing something. When self-confidence grows, anxiety and fear will decrease. Based on the results of research conducted for blind children who have low self-esteem, it can be enhanced through adaptive physical education activities. As a result, the self-confidence of blind children increases after doing adaptive physical education activities.

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