

Physical Fitness Status and Difficulties of Visually Impaired Students in Physical Education Class Special High School Ho Chi Minh City, Vietnam

Do Tan Phong*

Physical Education and Sport Department, Banking University, Ho Chi Minh City, Vietnam

Corresponding author:

Dr. Do Tan Phong,
Physical Education and Sport
Department, Banking University,
Ho Chi Minh City, Vietnam,
E-mail: thu.chus@gmail.com

Abstract

This article examines physical fitness status, motivation for physical exercise, and difficulties encountered in Physical Education (PE) classes by visually impaired students at special schools in Ho Chi Minh City, Vietnam. The study used interview methods, sports measurement, and SPSS 20.0 software to analyze the results of this study. Conducted research on 52 visually impaired students 11-14 years old. The research results show that the superiority of "height" and the "heart function" index of impaired students are good to be better than the average height, heart function, Vietnamese students of the same age, but inferior in physical factors force. At the same time, the study also pointed out the positive factors, the visually impaired students' interest and their difficulties in PE lessons.

Keywords: Visually impaired students; Physical activity; Student's perspectives; Physical fitness status

Introduction

With the growing interest in physical activities and healthy lifestyles, physical fitness activities are gaining the attention of modern society. In a school context, PE is a subject where physical activities play a central role. This issue is of particular importance about the bodies of visually impaired students when the desire to learn and experience with the body seems to be disturbed by ordinary requests-like performing certain movements in predefined ways-leading to existential challenges.

A different relationship between visually impaired students and visually impaired students sport. This peculiarity at school is that segregation by the external difference in "people with disabilities" and "non-disabilities" somehow leads to a kind of small distinction in school impaired students and people visually impaired. ^[1]

With physical activities becoming more and more important in our society, ^[2] body standard is an increasingly toxic process for creating meaning and identity. ^[3] People with physical defects (e.g., visually impaired) have a low chance of succeeding in their lives "by human standards". ^[4] People with disabilities are often forgotten and their needs ignored. They have difficulty in physical activities and Physical Education (PE) compared to other subjects in school. ^[5]

If the school's mission is to pass on values and norms to the younger generations, the school is particularly accepting and constructive in its diversity of education and physical activities for children with disabled children (eg. example "visually impaired students"). However, the authors have shown that underlying anthropological assumptions, doctrinal traditions, and curriculum requirements clearly articulate the requirements on social norms related to the body, which has created difficulties for visually impaired students. ^[6-8]

In addition, actors (eg, teachers) who behave in schools carry their individualized socialization values. For example, PE teachers also show body-related standards and performance

outcomes. ^[9] In contrast to attempts to recognize diversity, PE thus becomes the host for social exclusion processes, in which awareness is enhanced by systematically observing the visually impaired students. In this sense, it is about the "grammatical approach of exclusionary processes."

Therefore, supporting comprehensive physical development for children with disabilities in a meaningful and necessary job is of social concern. To develop physical fitness, it is necessary to properly assess the physical exercise, from which there are appropriate exercises. In which, physical education through physical activities and physical education classes for visually impaired students are also an important and urgent job.

Visually impaired students can develop like normal students if they are cared for and educated in the right way, in an environment suitable to the individual's cognitive abilities and characteristics. In which physical education development and improving the quality of physical education hours is one of the factors that need to be paid attention to. Visually impaired students still have many limitations in learning and physical training, when they still have to follow the same program as regular students, there are very limited research works on PE for visually impaired students.

Therefore, understanding "physical fitness status and difficulties of visually impaired students in physical education class special high school" is necessary to help schools have a scientific and accurate view in practical conditions and environmental characteristics, especially visually impaired students learning, and at the same time improving the quality and effectiveness of

This is an open access article distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as the author is credited and the new creations are licensed under the identical terms.

How to Cite this Article: Phong DT. Physical Fitness Status and Difficulties of Visually Impaired Students in Physical Education Class Special High School Ho Chi Minh City, Vietnam. *Ann Med Health Sci Res.* 2022;12:22-28.

physical education for disabled children, contributing to helping them integrate into life and society.

Materials and Methods

The article analyzes and synthesizes documents, interviews, pedagogical observation methods, pedagogical testing, and statistical math. The study used SPSS 20.0 software and Microsoft Excel to analyze the results.

With the consent of the students' parents, the study was carried out on 52 visually impaired students, 11-14 years old, with 30 boys and 22 girls visually impaired students in specialized high schools, Ho Chi Minh City, including students in grades 6, 7, 8 and 9.

Experts interviewed: 05 managers, 09 experts in Physical Education, and 04 PE teachers.

Results

Physical fitness status of visually impaired student's special high schools in a physical education class

Table 1 comparison of average values of physical fitness

indicators for women visually impaired students with the average physical fitness of Vietnamese females aged 11-14 years old.

The results of the comparison of physical fitness indicators between female visually impaired students and Vietnamese female from 11-14 years old are shown in Figure 1 .

Females visually impaired students are 11-14 years good than Vietnamese females in terms of height (cm) (11 years old, 12 years old), heart function (12 years old, 13 years old, 14 years old); same height (cm) (13 years old, 14 years old), Right-hand strength (kg) (11 years old) and less in physical fitness.

Table 2 comparison of average values of males' physical fitness indicators visually impaired students with the average physical fitness of Vietnamese males aged 11-14 years.

The results of the comparison of physical fitness indicators between males visually impaired students and Vietnamese males from 11-14 years old are shown in Figure 2 .

Male visually impaired students are better than Vietnamese men

Table 1. Comparison of average values of physical fitness indicators for women visually impaired students with the average physical fitness of Vietnamese females aged 11-14 years old.

No.	Tests	M	SD	M ₁	M ₂	M ₃	M ₄	t ₁	t ₂	t ₃	t ₄	P ₁	P ₂	P ₃	P ₄
1	Height (cm)	150.68	6.45	139.4	144.69	148.82	151.28	8.20	4.36	1.35	0.44	<0.01	<0.01	>0.05	>0.05
2	Heart function (HW)	13.55	0.88	13.82	14.4	14.63	14.76	1.44	4.53	5.76	6.45	>0.05	<0.01	<0.01	<0.01
3	Lung capacity (ml)	1.98	0.34	-	-	-	-	-	-	-	-	-	-	-	-
4	full body flexibility (cm)	0.02	0.82	6	7	8	8	34.21	39.93	45.65	45.65	<0.01	<0.01	<0.01	<0.01
5	Standing long jump (cm)	93.55	13.37	150	153	157	159	19.80	20.86	22.26	22.96	<0.01	<0.01	<0.01	<0.01
6	Right hand strength (kg)	19.18	2.06	18.8	21.25	23.49	25.79	0.87	4.71	9.81	15.15	>0.05	<0.01	<0.01	<0.01
7	Running 10 m (s)	3.8	0.4	-	-	-	-	-	-	-	-	-	-	-	-
8	Clap10 seconds (times)	12.41	1.44	-	-	-	-	-	-	-	-	-	-	-	-
9	Throw the ball into the basket (scores)	10.64	1.47	-	-	-	-	-	-	-	-	-	-	-	-

Df = n -1 = 21, t₀₅ = 2.079, t₀₁ = 2.831 Note: M1, M2, M3, M4 , the average value of physical fitness indicators of Vietnamese females is 11, 12, 13, and 14 years old.

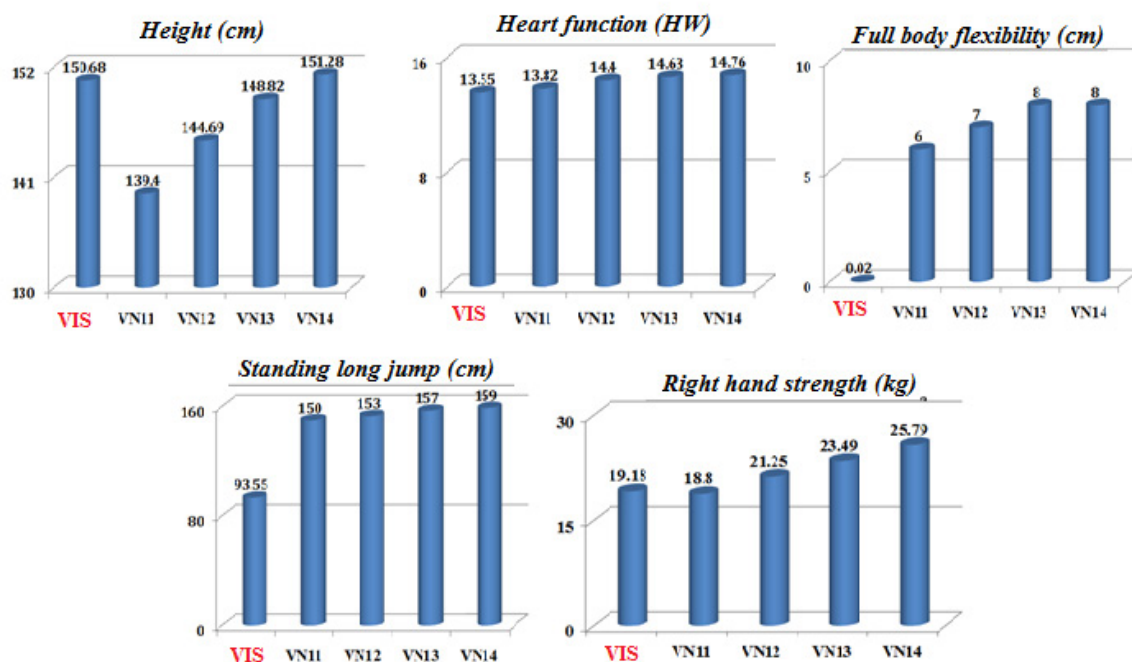


Figure 1: Comparison of physical fitness indicators between females Visually Impaired Students (VIS) and Vietnamese females 11-14 years old.

Table 2. Comparison of average values of males' physical fitness indicators visually impaired students with the average physical fitness of Vietnamese males aged 11-14 years.

No.	Tests	M	SD	M ₁	M ₂	M ₃	M ₄	t ₁	t ₂	t ₃	t ₄	P ₁	P ₂	P ₃	P ₄
1	Height (cm)	160.93	6.15	137.6	143.27	149.77	155.67	20.78	15.73	9.94	4.68	<0.01	<0.01	<0.01	<0.01
2	Heart function (HW)	13.96	1.55	13.02	13.25	12.73	12.65	6.22	13.43	14.17	10.11	<0.01	<0.01	<0.01	<0.01
3	Lung capacity (ml)	2.53	0.40	-	-	-	-	-	-	-	-	-	-	-	-
4	full body flexibility (cm)	3.23	2.10	6	6	7	8	7.22	7.22	9.83	12.44	<0.01	<0.01	<0.01	<0.01
5	Standing long jump (cm)	135.40	15.58	161	172	183	193	9.00	12.87	16.73	20.25	<0.01	<0.01	<0.01	<0.01
6	Right hand strength (kg)	27.80	4.15	19.3	22.3	26.87	31.52	11.22	7.26	1.23	4.91	<0.01	<0.01	>0.05	<0.01
7	Running 10 m (s)	3.11	0.31	-	-	-	-	-	-	-	-	-	-	-	-
8	Clap 10 seconds (times)	13.53	1.73	-	-	-	-	-	-	-	-	-	-	-	-
9	Throw the ball into the basket (scores)	10.27	1.63	-	-	-	-	-	-	-	-	-	-	-	-

Note: M1, M2, M3, M4, the average value of physical fitness indicators of Vietnamese males is 11, 12, 13, and 14 years old.

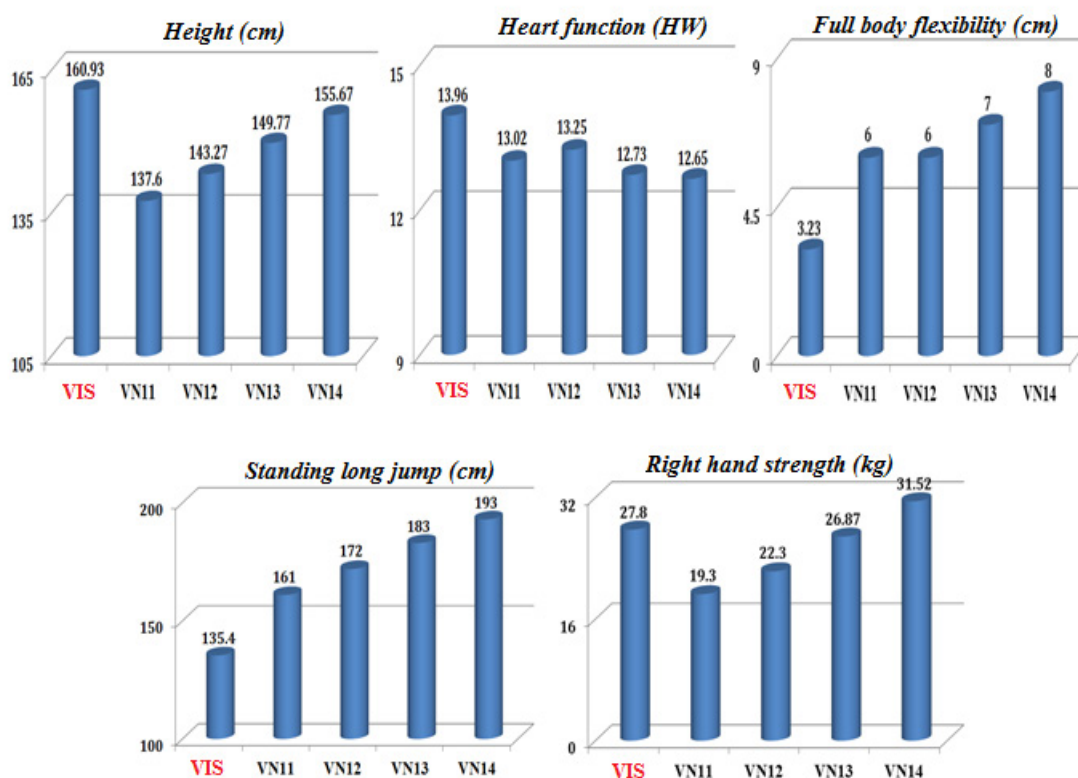


Figure 2: Comparison of physical fitness indicators between males Visually Impaired Students (VIS) and Vietnamese males 11-14 years old.

11-14 years old in height (cm) and right-hand strength (kg) (11, 12 years old); similar in right-hand strength (kg) (13 years old) and inferior in Heart function (HW), flexibility, “Standing long jump” (cm) and “Right-hand strength” (kg) (14 years old).

The purpose of visually impaired students when participating in physical education

Conduct a survey on 52 students (22 girls, 30 boys) of the school about their goals when learning physical education is presented in Table 3.

The results of show that visually impaired students assessment of the purpose of physical education participation on average=3.58 scores in agreement; in which the question “physical health training” was rated the highest by students with 3.87 scores (agreement) and the question “to please others (teacher, aunt, family, friends...)” was rated the lowest by students. 3.23 scores (normal level). The results of student’s assessment of the

purpose of learning physical education for visually impaired students are compared through [Figure 3].

Through the above assessment results of visually impaired students, shows that they are very conscious in exercising their health to serve, support life skills and create the joy of communication and integration with others society. If for normal students, exercise will often be associated with the purpose of self-improvement possibly having a beautiful body, then in visually impaired children this purpose is only secondary.

Visually impaired students’ motivation when participating in physical education

The results of Table 4 shows that students’ evaluation of visually impaired students’ motivation to participate in PE on average=3.58 scores (in agreement); in which the question item “PE is a compulsory subject” was rated the highest by students with 3.73 scores (agree to level) and the question item:

Table 3. Assessment results of visually impaired students on the purpose of participating in physical education.

No.	Intent (n=52)	Interview results	
		M	SD
1	Physical health training	3.87	.486
2	Practice other life skills (Self-confidence, time management, discipline, teamwork...)	3.83	.879
3	Reduce pressure, create fun, excitement	3.85	.872
4	Nice body	3.25	.556
5	Expand communication	3.79	.936
6	Eligible to go to class	3.54	.986
7	Entertainment and relaxation	3.62	.530
8	To become a good student in all aspects (virtue, intelligence, body, beauty)	3.56	.539
9	To please others (teacher, aunt, family, friends...)	3.23	.581
10	Satisfy your hobbies and passions	3.25	.519
	Average	3.58	

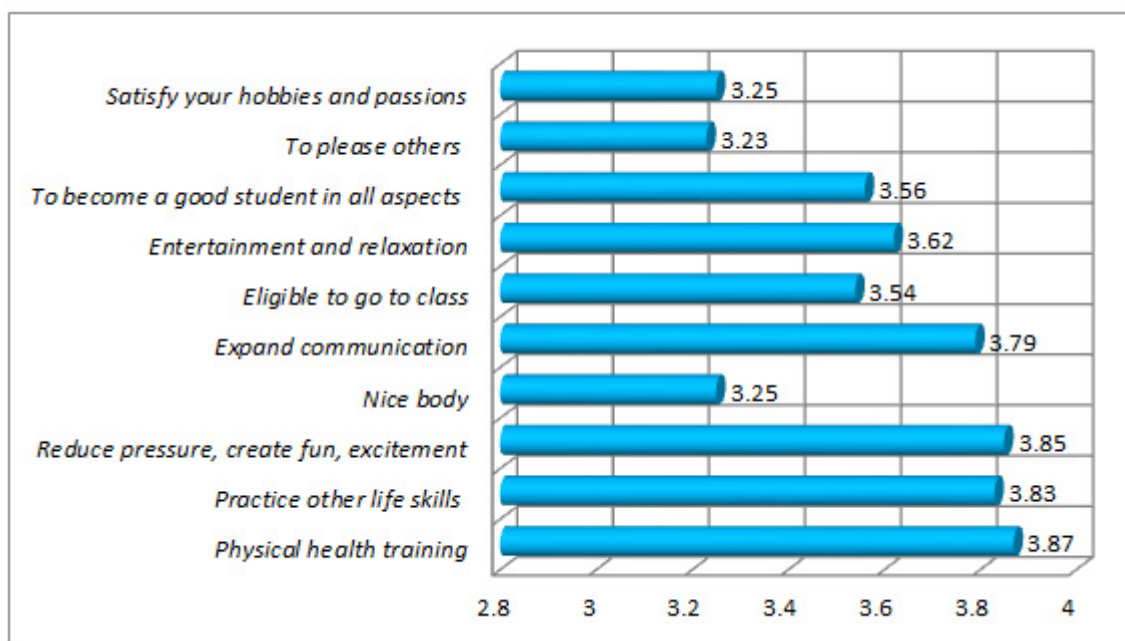


Figure 3: Assessment results of visually impaired students about the purpose of participating in physical education.

Table 4. Assessment results of visually impaired students on motivation to participate in physical education.

No.	Motivation	Interview results	
		M	SD
1	PE is a compulsory subject	3.73	.637
2	Attractive, interesting PE	3.62	.661
3	Meet friends, teachers	3.60	.634
4	Have the opportunity to show off your ability to play a sport you enjoy with your classmates	3.60	.603
5	Love PE and sports activities	3.71	.658
6	To have a balanced, beautiful body	3.37	.598
7	High score	3.56	.502
8	Desire to be good at all subjects and fields in the program	3.44	.502
	Average	3.58	

“to have a balanced, beautiful body” was rated the lowest with 3.37 scores (normal level). The results of this assessment of the visually impaired students’ motivation to exercise are compared [Figure 4].

The above results again show that the children have a good sense of learning PE even though it is a compulsory subject because its activities have attracted them. This shows that the school’s physical fitness and PE teaching activities have gone in the right direction and are effective.

Visually impaired students’ difficulties when participating in physical education

Survey 52 the students about the difficulties and obstacles when learning physical education presented in Table 5 .

Evaluation of the difficulties and obstacles of visually impaired students about the conditions to ensure teaching work shows that

Difficulties in ensuring conditions for teaching are assessed by

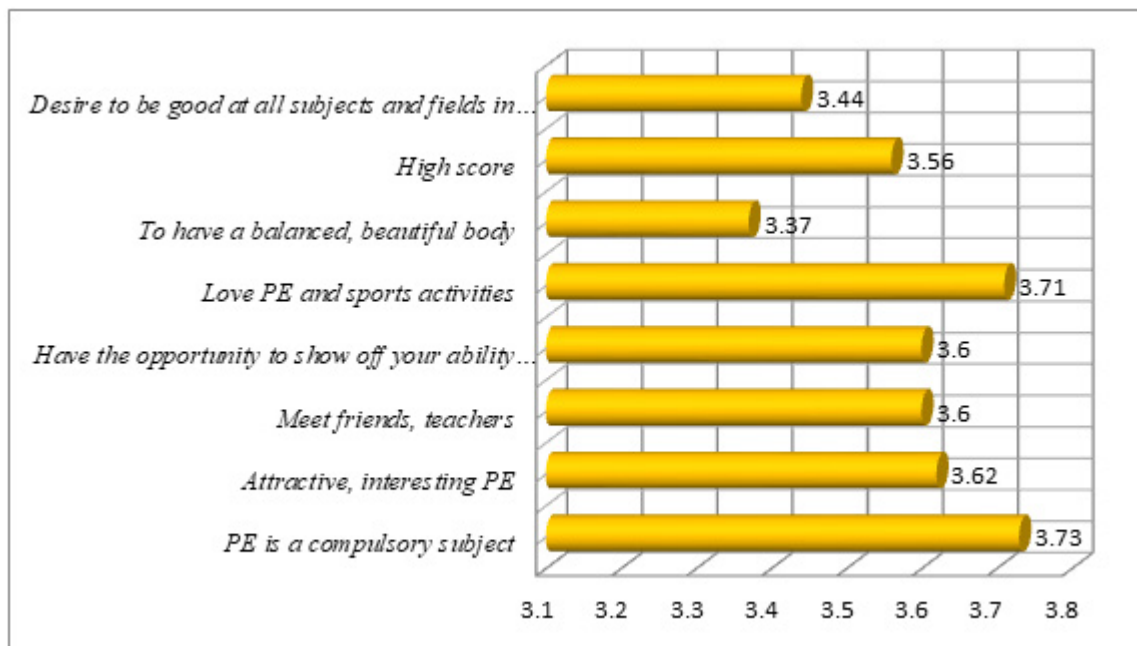


Figure 4: Assessment results of visually impaired students on motivation to participate in physical education.

Table 5. Assessment results of visually impaired students on difficulties and obstacles when participating in PE.

No.	Difficulties, obstacles	Interview results	
		M	SD
	Conditions to ensure PE teaching	3.23	
1	Program content is not diverse and attractive; Class time is boring, lack of interest (Must study inappropriate subjects, do not like because the school only has these subjects)	3.29	.536
2	The amount of exercise is not suitable for the student's level and physical fitness	3.10	.534
3	The content of the exercise is not lively, not diverse, attracting students to actively participate in practice	2.75	.556
4	Lack of equipment and tools, poor quality	2.90	.664
5	The yard is lacking, of poor quality, and not safe	3.15	.415
6	Sanitation and safety of the yard are not good	3.35	.480
7	The professional qualifications of the teaching staff are poor	3.50	.542
8	Teachers' teaching methods	3.48	.505
9	Lack of teachers to directly edit movements	3.58	.499
	About the students themselves	3.18	
10	Do not like participating in sports activities	3.40	.495
11	No basic knowledge and skills to practice sports	3.25	.590
12	No motivation to practice sport	2.81	.627
13	Poor body mobility	3.00	.767
14	Fear of pain or injury	2.87	.627
15	Do not have time	3.21	.412
16	No friends, teammates	3.52	.610
17	Not keeping up with the teacher's lectures and instructions	3.37	.525
	Another factors	3.26	
18	Means of communication for teachers	3.42	.499
19	Inappropriate study time	3.06	.416
20	No funding (clothes, tools ...)	3.25	.437
21	No instructor (Teacher, Coach, ..)	3.50	.542
22	No support or encouragement from family	3.00	.767
23	No support, encouragement from teachers	3.33	.474
24	No one to support practicing at home	3.29	.457

students on average=3.23 scores (normal level); in which the question “lack of teachers to directly edit movements” was rated the highest by students with 3.58 scores (good level) and the question item “the content of the exercise is not lively, not

diverse, attracting students to actively participate in practice” was rated the lowest by students 2.75 scores (normal level). The results of the students’ assessment of the difficulties in terms of ensuring conditions for the teaching of physical education are shown [Figure 5].

The results show that the PE teacher’s capacity has met the teaching task. The difficulties mentioned are also the current difficulties of the school, due to the limited facilities and yards of the school, etc., thus affecting the PE learning conditions of the students.

Assess the difficulties and obstacles of visually impaired students about themselves

Difficulties about students themselves are assessed by students on average=3.18 scores (normal level); in which the question “no friends, teammates” was rated the highest by students with 3.52 scores (good level) and the question “no motivation to practice sport” was rated the lowest by students with 2.81 scores (normal level). The results of students’ assessment of their difficulties are shown in Figure 6 .

The above results show that most of the children’s difficulties are

due to psychological factors such as fear of pain or injury, lack of motivation, or poor mobility... That’s why the psychological impact Teachers’ work will play an important role in relieving psychology and improving the effectiveness of physical education lessons for the school’s visually impaired students.

Evaluation of visually impaired students on other factors shows that

Difficulties in other factors are assessed by students on average=3.18 scores (normal level); in which the question item “no instructor (Teacher, coach, ..)” is rated the highest by students with 3.50 scores (good level) and the question item “no support, encouragement from family” is given the highest score. The lowest rated student 3.00 scores (normal level). The family has a very important role and impact, is the focus of combined activities, is the place where children are born and grows up, and shapes their personality, the family’s educational influence

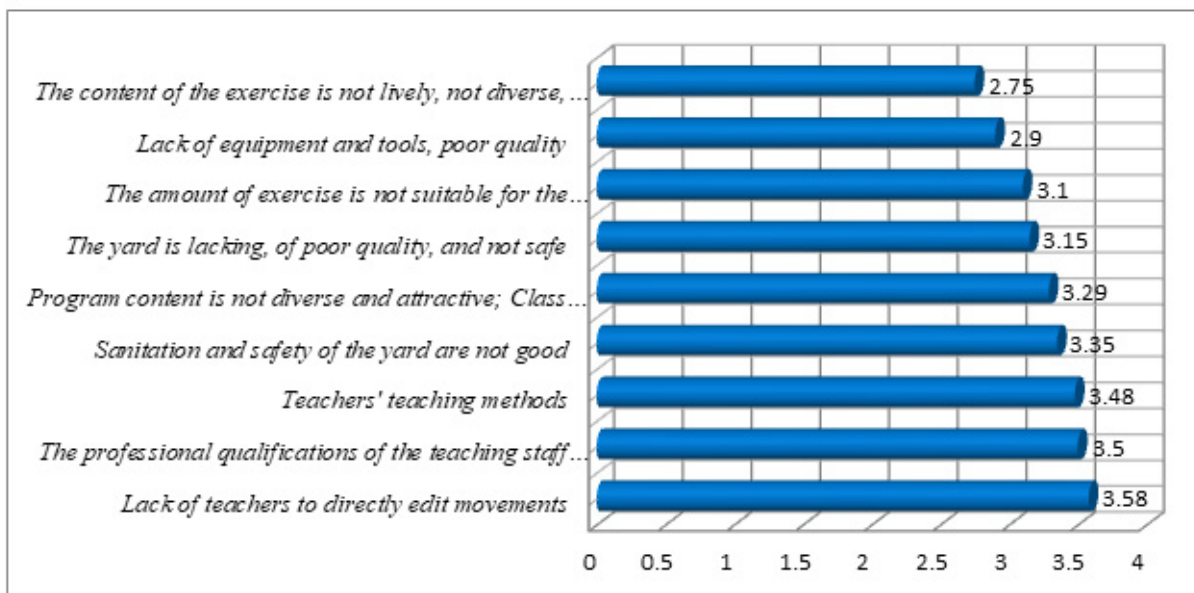


Figure 5: Assessment results of visually impaired students about difficulties and obstacles when taking PE subject.

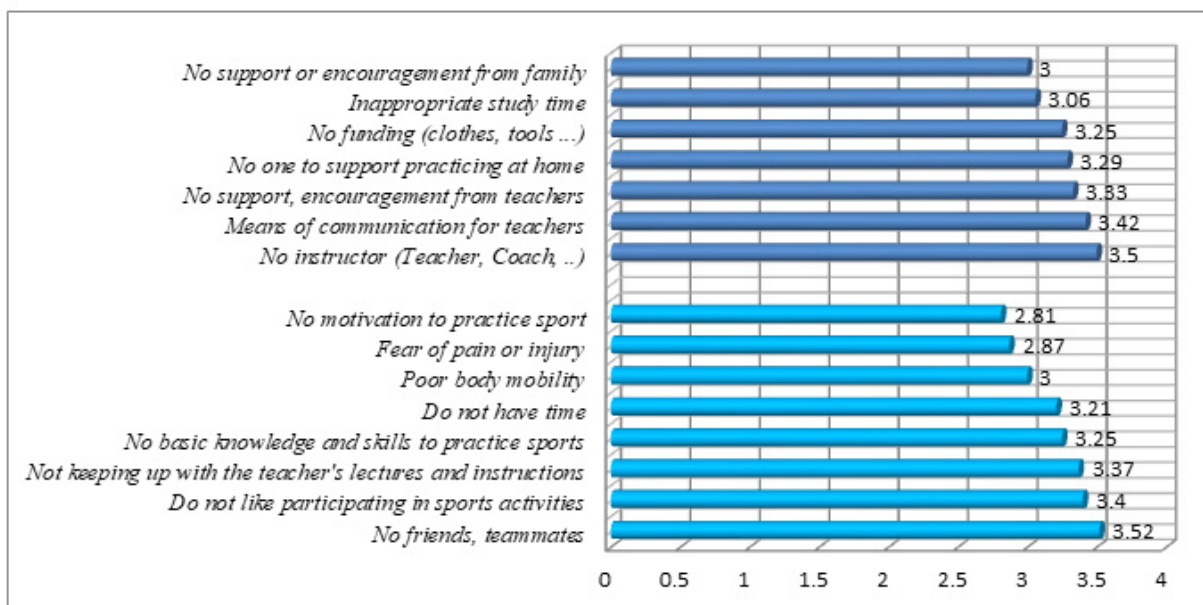


Figure 6: The results of the assessment of visually impaired students' difficulties about themselves and other factors.

on children is the earliest. That shows that the lack of support and encouragement from the family is the most difficult factor, thereby affecting the study time, the support to practice at home ... so to achieve high efficiency in teaching activities. Physical fitness is indispensable for the cooperation between the family and the school [Figure 6].

Discussion

PE is one-sided and not following body standards (or failing to discuss these issues in PE class) poses a potential development risk, exclusive to visually impaired students. The results of Haegele et al. show that adults who are blind or visually impaired describe PE as a missed opportunity to increase their appreciation for physical fitness and emphasize that due to previous negative experiences, visually impaired adults were less active. ^[10] The results reported by interviewees, which coincide with those of Haegele et al. are also remarkable. The findings contradict the stated assumption about physical fitness education for people with disabilities in sports performance. ^[11] At this point, further studies are needed to further explore the connections between seemingly impaired students' experience and societal norms and requirements. Such research projects would also have to be carried out involving other lines of disability to clarify whether there is any such thing as collective exclusion experience, to account for these findings in developing further develop inclusive sports education for all. ^[12,13]

In addition, the results obtained raise awareness that curriculum and textbook requirements should also consider the surrounding structures of children with disabilities with normal requirements in society. In the sense of an education that is inclusive or inclusive. ^[14-19]

Conclusion

The physical fitness status of visually impaired students is better than Vietnamese same age in terms of body image but inferior in physical fitness and heart function. The mean value of cardiac hearth function index of visually impaired students male: 13.96 (HW) and female: 13.55 (HW) according to Ruffier's classification, classified as poor.

Purpose: of visually impaired students, proving that they make great efforts in exercising their health to serve, support life skills, and create joy in socializing.

Motivation: showing that the school's physical education teaching activities were on the right track and effective, the children were very conscious in learning gymnastics and its activities attracted them.

The current teaching staff and physical fitness activities of the school meet the teaching requirements. The difficulties of the students are mainly due to psychological factors, so the actions, words, etc., the psychological impact of the teacher will contribute to relieve the psychology and improve the effectiveness of the lesson physically visually impaired students of the school. The family has a very important role and influence, the most difficult factor for the children is the lack of support and encouragement from the family, etc., so to achieve high efficiency in a physical education class, it is necessary to have more cooperation between home and school.

References

1. Ruin S, Giese M, Haegele JA. Fear or freedom? (Visually impaired students)' ambivalent perspectives on physical education. *Br J Vis Impair*. 2020;39:20-30.
2. Giese M, Ruin S. Forgotten bodies-An examination of physical education from the perspective of ableism. *Sport Soc*. 2018;21:152-165.
3. Shilling C. (2012). *The body and social theory: Theory, culture and society* (3rd edition). SAGE.
4. Overboe J. 'Difference in itself': Validating disabled people's lived experience. *Body Soc*. 1999;5:17-29.
5. Haegele J, Zhu X. Experiences of individuals with visual impairments in integrated physical education: A retrospective study. *Res Q Exerc Sport*. 2017;88:425-435.
6. Giese M. Inclusive sports pedagogics. Critical considerations on an anthropological foundation. *Ger J Exerc Sport Res*. 2016b;46:102-109.
7. Giese M. Inclusive physical education-A candidate in the perspective of disability studies. *Zeitschrift für Naturforschung*. 2016a;4:85-102.
8. Ruin S. Fitter, healthier, more able to work-on the narrowing of the body in physical education curricula in the process of competence orientation. *Zeitschrift für Naturforschung*. 2014;2: 77-92.
9. Ruin S, Meier S. Body and performance in (inclusive) PE settings: An examination of teacher attitudes. *Int J Phys Educ*. 2017;54:11-23.
10. Haegele J, Zhu X, Holland K. Exploring the intersection between disability and overweightness in physical education among females with visual impairments. *Res Q Exerc Sport*. 2019;90:344-354.
11. Coates J. Physically fit or physically literate? How children with special educational needs understand physical education. *Eur Phy Educ Rev*. 2011;17:167-181.
12. Buchner T. *Die Subjekte der Integration: Schule, Biographie und Behinderung*. Klinkhardt. 2018.
13. Depauw KP. Physical education for the visually impaired: A review of the literature. *J Vis Impair Blind*. 1981;75:162-164.
14. Foucault M. *Discipline and punish: The birth of the prison*. Vintage Books. 1977.
15. Lauren JL, Elaine, M. Health-related fitness of children who are visually impaired. *J Vis Impair Blind*. 2001;95:272-287.
16. Luu TS. Research on sports exercises to improve physical fitness and orientation capacity for visually impaired children (6-9 years old). Doctoral thesis in educational science, institute of sports science. 2016;94-96.
17. Seelye W. Physical fitness of blind and visually impaired Detroit public school children. *J Vis Impair Blind*. 1983;77:117-118.
18. Moira ES, Lauren L, Karen EH. Beliefs about physical activity among children who are visually impaired and their parents. *J Vis Impair Blind*. 2006;100:223-234.
19. Nguyen QT. Building a system of aerobics exercises to develop physical strength for children with mental retardation from 6 to 11 years old in some specialized schools in Ho Chi Minh City. Bac Ninh University of Sports. 2011.