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Physical Activity Model Development Using Eye Reaction Time and Body Movement Tests via Mobile Phones for Students' Hearing Impairments

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Abstract

Creative physical activity forms that are suitable and consistent to satisfy the physical activities' needs of hearing impaired students using reaction time, eye function and body movement testers to target locations via mobile phones were assessed to their before and after participating in physical activities in the Schools for the Deaf were compared and the school directors were interviewed. Creative the empirical quantitative data to a sample size of 255 deaf students from 6-School for the Deaf in six Regions. General students' background was reported. Students' perceptions were assessed with the Physical Activity Need Questionnaire (PANQ). Before and After Six-Physical-Activity Forms in 9 weeks were compared. The Eye-to-Body-Movement Reaction Tester via mobile phones was tested. School directors were interviewed. Six physical activity models in 9 weeks to 255 deaf students, including male and female at lower secondary level were created. The Group Games and Training to Become an Athlete physical activity model development that their needs. Comparisons between their before and after physical activity were tested with the eye-body-movement reaction via mobile phones in six scales were differences, significantly. Effects of teenage years related to the cardiovascular system, eye, and mental health are widespread. Training Thai Boxing is a Group Game as a traditional Thai martial art in fists, elbows, knees, and bare feet with balance problems' exception to a well-rounded physical activity. Parental involvement is another key factor to encourage participation in creative movement activities for deaf students. Physical activity (PA) is important for the development of teenage hearing impairments. The existing physical activity program to the PA showed higher levels of participation in PA that are more physically active than those with other types of disabilities.

Keywords: Physical activity; Model development; Eye-body-movement; Reaction time tester; Before and after physical activity program deaf students' needs; Mobile phones; schools for the deaf.

Introduction

WHO defines physical activity as any bodily movement produced by skeletal muscles that requires energy expenditure? Physical activity refers to all movement including during leisure time, for transport to get to and from places, or as part of a person's work. However, regular physical activity is proven to help prevent and manage non-communicable diseases such as heart disease, stroke, diabetes and several cancers. It also helps prevent hypertension, maintain healthy body weight and can improve mental health, quality of life and well-being. Moreover, WHO guidelines and recommendations provide details for different age groups and specific population groups on how much physical activity is needed for good health (World Health Organization (WHO), 2020) [1]. A physical activity model development as inactivity and obesity levels continue to rise, calls are being made for sport development action to be further directed towards capitalizing on the value of community participation for health and social benefits that seek to highlight a current disconnect between physical activity and sport management research, and identify opportunities for collaboration. To date, the sport management literature has predominantly focused on sport as a form of entertainment with spectatorship outcomes, where professional codes are a commonly used setting of research inquiry (Rowe et al., 2013) [2]. The Physical Activity Maintenance (PAM) Theory was developed based on past literature and is the only theory known to date that solely addresses maintenance of PA (Nigg et al,, 2008) [3]. Briefly, this theory describes PAM as being determined from both individual psychosocial variables and contextual constructs. Individual psychosocial constructs include: satisfaction, attainment and commitment of goal-setting; motivation which is conceptualized as self-motivation and expectations; and barrier and relapse self-efficacy. The contextual variables may facilitate or impede PAM directly or indirectly via the individual psychosocial variables (Health Behaviour Change Research, 2016) [4]. The PAM Theory is presented in Figure 1.

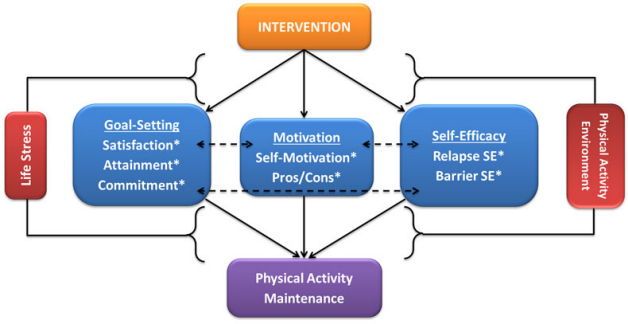

Figure1: The Physical Activity Maintenance (PAM) Theory.

Reaction time is a measure of how quickly an organism can respond to a particular stimulus. Reaction time has been widely studied, as its practical implications may be of great consequence, e.g. a slower than normal reaction time while driving can have grave results (Radford University, 2014) [5]. The model for information flow within an

organism, more specifically, in vertebrates, information flow can be represented in this way: Visual Motor Reaction Time – refers to the amount of time that elapses between the initiation of a visual stimulus, the processing of that information by the eyes and the brain and the completion of a motor response to that stimulus. The benefits of dietary zeaxanthin go beyond just the eyes. Supplementing with 20 mg of zeaxanthin daily has been scientifically proven to increase visual processing speed, or the speed at which our eyes and brain communicate by 10% over 4 months (Eye Promise Live in Focus, 2016) [6]. The typical reaction time for a human is about 250 milliseconds—meaning it takes you about a quarter of a second after you see something to physically react to it [7]. Eye reaction time test, about the test, a simple tool to measure your reaction time.

The average (median) reaction time is 273 milliseconds, according to the data collected so far. In addition to measuring your reaction time, this test is affected by the latency of your computer and monitor. Using a fast computer and low latency/high framerate monitor will improve your score. Scores in this test are faster than the aim trainer test, because you can react instantly without moving the cursor. This is discussed in further detail on the statistics page. While an average human reaction time may fall between 200-250ms, your computer could be adding 10-50 ms on top. Some modern TVs add as much as 150ms of reaction times (Human Benchmark, 2016) [8]. Over 5% of the world's population – or 430 million people – require rehabilitation to address their 'disabling' hearing loss (432 million adults and 34 million children). It is estimated that by 2050 over 700 million people – or one in every ten people – will have disabling hearing loss. 'Disabling' hearing loss refers a person who is not able to hear as well as someone with normal hearing – hearing thresholds of 20 dB or better in both ears (World Health Organization (WHO), 2021) [9]. There are three main types of hearing loss: conductive hearing loss, sensor neural hearing loss, and mixed hearing loss. An additional problem which is increasingly recognized is auditory processing disorder which is not a hearing loss as such but a difficulty perceiving sound. Hearing loss is the partial or total inability to hear sound in one or both ears. People with hearing loss make up a significant 5.3% of the world's population. When the hearing loss is fully characterized, appropriate medical intervention can be assigned (Alshuaib, Al-Kandari, & Hasan, 2015) [10].

The movement tests the ability to stabilize the spine in the sagittal plane during the closed kinetic chain, upper body symmetrical movement. The Rotary Stability pattern is complex, requiring proper neuromuscular coordination and energy transfer through the torso. Deafness could therefore disturb such processes. It has also been suggested that many unexplained daily difficulties experienced by the deaf could be related to deficits in this underexplored field of the current state of knowledge on the effects of deafness on body-related processing.

The research study was to develop a form of physical activity using reaction time, eye function and body movement test machines to target locations via mobile phones for hearing disabled students in schools under the Office of the Basic Education Commission in the Category of Education Welfare. Interviewing the opinions of the schools' directors with a semi-structured interview was assessed. Design and experimental hearing disabled students' physical activities. Using the professional experts was to verify the quality of the programs that showed the suitability and consistency of the designed and invented programs via the mobile phone invention.

LITERATURE REVIEW

Physical activity ensures healthy growth and development in young people to improve overall well-being. Up to 5 million deaths a year could be averted if the global population was more active. People who are insufficiently active have a 20% to 30% increased risk of death compared to people who are sufficiently active more than 80% of the world's adolescent population is insufficiently physically active. Physical activity is any movement that increases your heart rate and breathing. Being physically active improves your health and well-being (Better Health Cannel, 2020) [13]. It has benefits for all ages, including reducing your risk for chronic diseases, improving your sleep, increasing your energy, and improving self-confidence and mental health. Adding more physical activity to your day provides extra health benefits. Some examples of physical activity are: going for a walk, bike, or run (join our indoor walking program); doing household chores; taking the stairs instead of the elevator; playing at the park; or raking leaves. For ages 5 to 18, it is important to include activities that strengthen muscle and bone at least three times per week. For adults 18 years and older, it is beneficial to add muscle and bone strengthening activities using major muscle groups at least twice per week. For adults 65 years and older it's important to perform activities to enhance balance and prevent falls.

Physical activity is important throughout your life, just as children learn language skills through reading and writing, they also need to learn movement skills through running, kicking, throwing, catching and jumping. It helps build a healthier body composition, stronger bones and muscles. Research on physical activity model development of physical activity of elderly living in Korea, determines significant factors contributing the physical activity, and examines significant paths in the model. Previous exercise behavior, and self-efficacy were significant in explaining the variance in their physical activity that perceived health status, perceived benefits, perceived barriers, and social support directly affected self-efficacy, and economic level directly affected social support.

Previous research investigated implicit aspects of romantic attachment using self-report measures as explicit instruments for assessing attachment style. Developing a reaction time (RT) experiment using a narrative attachment measure with an implicit nature and were interested to capture automatic processes, when the individuals' attachment system is activated. An electrophysiological model based on preliminary research is proposed for assessing the preconscious neuronal network related to secure or insecure attachment representations. The individual's reaction time is calculated as the interval between presentation of the stimulus and the time recorded from the mechanical response. Reaction time (RT) is a measure of the response to a stimulus. RT plays a very important role in our lives as its practical implications may be of great consequences. Factors that can affect the average human RT include age, sex, left or right hand, central versus peripheral vision, practice, fatigue, fasting, breathing cycle, personality types, exercise, and intelligence of the subject. The ART is faster than the VRT in medical students. Furthermore, male medical students have faster RTs as compared to female medical students for both auditory as well as visual stimuli. Regularly exercising medical students have faster RTs when compared with medical students with sedentary lifestyles.

Assessing the influence of colored light stimulus on simple visual reaction times, it was observed that the response latency for red color was significantly less compared to green color. The individuals don't respond to visual stimuli with different colors at the same speed,

which may be due to different factors involved in the visual reaction time. A 30-year-old woman presented to the emergency department with a two-day history of pain in her right eye that was worse with eye movements. She also complained of blurred vision in the right eye. The health consequences associated with vision loss extend well beyond the eye and visual system. Vision loss can affect one's quality of life (QOL), independence, and mobility and has been linked to falls, injury, and worsened status in domains spanning mental health, cognition, social function, employment, and educational attainment. The use of mobile phones for people with visual impairments, the present state and future needs of visually impaired mobile phone users were surveyed. The results showed that many visually impaired users, even print enabled persons, were making use of speech output to e-mail and to access the Internet, and, accordingly, improvements of speech output were requested. Additionally, GPS navigation was on the high priority request list. The literature indicates that few studies have been conducted with persons with visual impairments concerning mobile application or "app" usage. Developers of apps for individuals with visual impairments need to refine and test the existing apps. Practitioners need to be knowledgeable about app usage so they can provide effective instruction to their students or clients. This study provides preliminary information regarding app usage among persons with visual impairments.

Eye tracking technologies and methodologies have advanced significantly in recent years. Specifically, the use of eye tracking to quantitatively measure coulometer and psycho-physiological constructs is gaining momentum. Reaction time has been measured in a number of different ways from a simple response to a stimulus to more challenging choice or discrimination responses to stimuli. Traditionally, reaction time is measured from the beginning of a stimulus event to a response event and includes both visual and motor response times such as visual latencies and visual speed, and can identify if the person was looking at the target area when a stimulus is presented. Reaction times of people with traumatic brain injury were overall much more variable, showing very large standard deviations, than those of the non-athletes and athletes. Body movement reaction time tester to target position, in labor and sport physiology the great deal of interest concerns the conceptual model of governance of both rapid and precise target-directed movements. Widely known in the theory of motor control, Fitts' paradigm determines the time of motion, calculated from the distance to the target and the diameter of the target. In addition, the literature highlights little evidence of temporal and spatial asymmetry in the production of fast and accurate movements. It may be possible to develop special methods of training, geared towards the ability to increase the probability of appearance of this model. Especially, when the reaction time (TR) and movement time (TM) were close to average values of the sample to conclude that in the process of development of new motor skills which include both precise and rapid movements.

Research on mobile phone eye response time tester for hearing impaired students; Pure-Tone Screening (PTS) is considered as the gold standard for hearing screening programs in school-age children. Mobile devices, such as mobile phones, have the potential for audiometric testing. To demonstrate a new approach to rapidly screen hearing status and provide stratified test values, using a smart phone-based hearing screening app, for each screened ear of school-age children. Sound-treated PTS involved applying 4 test tones to each tested ear: 500 Hz at 25 dB and 1000 Hz, 2000 Hz, and 4000 Hz at 20 dB. The results were classified as pass (normal hearing in the ear) or fail (possible hearing impairment). The proposed smart phone-based screening employs 20 stratified hearing scales. Thresholds were compared with those of pure-tone average (PTA). The smart phone-based screening detected moderate or worse hearing loss (average PTA>25 dB) accurately. Both the sensitivity and specificity of the smart phone-based screening method were calculated at 100%. This suggested the potential use of the proposed smart phone-based hearing screening in a school-age population. Research on the body movement reaction time tester to target location via mobile phone for students with hearing impairment, the differences in manual reaction time (RT) to visual stimuli in two samples of physically active persons: a group of athletes without hearing impairment and a group of athletes with hearing impairment. Reaction time (RT) was measured and then differences between both groups were assessed by sex, type of sport (individual & team sports), and competition level. RT to visual stimuli was significantly shorter for athletes with hearing impairment than for those without hearing impairment, with a significant sex difference (shorter RT for males), but no differences regarding type of sport or competition level. Suggestions for further research and sport applications are provided. This research study focused on physical activity model development using eye reaction time and body movement tests via mobile phones with hearing disabilities' students.

Methods

Physical activity refers to the activity that performs the physical movement of the researcher for students' amount 9 weeks. Eye functional response to target position refers to the eye-hand correlated body response patterns for students at the Schools for Deaf. Body movement response to target position refers to the eye and hand correlated body response patterns for students at Schools for Deaf. Hearing impaired students refer to students who are medically screened for communication impairments.

Research procedures

Target groups

A sample size consisted of 255 hearing disabled students whose age ranged from 14 to 23 years old that response of their perceptions to the Physical Activity Need Questionnaire (PANQ) at six Schools for the Deaf under the Office of the Basic Education Commission. Interviewing sampling groups consisted of 18 School Directors, the Deputy Director of Learners Development, and Teachers who taught in the Physical Education Learning Core at six Schools for the Deaf and the Office of the Basic Education Commission, each school consisted of 3 personnel.

Variables

The independent variable is Physical Activities. The dependent variable is the Responses to Eye Function and Body Movement to the Target Position through the Mobile Phones with Good Hearing of the Disability Students.

Research instruments

The Eye-to-Body-Movement Reaction Tester (EBMRT)

Designing the Eye-to-Body Reaction Tester was testing the target position via mobile phones. Testing the temple before and after attending physical activities (Pre-test and post-test design, similarity). The Physical Activity Need Questionnaire (PANQ) The Physical Activity Need Questionnaire (PANQ) was assessed students'

perceptions to their physical activity needs with time schedules in 9 weeks, 2 times a week, and 50 minutes each time on 6 rating levels.

Data analysis

The primary data were analyzed with frequency, percentage, mean, and standard deviation. Comparing the mean values of the variables before and after the experiment. Using the Pair-t test, the statistical significance level at .05. Summarizing the results from the interview in the form of essay descriptive content.

Results

Assessing a sample size consisted of 255 hearing disabled students at six Schools for the Deaf to the Physical Activity Need Questionnaire (PANQ) that reports in Table 2. Using the Physical Activity Need Questionnaire (PANQ) was assessed students' perceptions to their before and after physical activity needs with time schedules in 9 weeks, 2 times a week, 50 minutes each time on 6 rating levels that reports in Table 3 and 4.

The PANQ consists of 36 items, in 6 scales, namely; Sit-up Activity, Sitting Unsupported or Walking, Effective Communication, Activity for Health, Training to Become an Athlete, and Group Games scales each scale consists of 6 items in six options of 0-5 levels were assessed with the EBMRT.

Scale	α-Reliability	Scale Mean	Standard deviation	Variance	Means average	Interpretation
Sit-up Activity	0.809	19.886	2.814	7.920	3.314	Agree with
Sitting Unsupported or Walking	0.795	19.458	2.760	7.619	3.243	Agree with
Effective Communication	0.812	19.694	2.873	8.253	3.282	Agree with
Activity for Health	0.788	21.745	3.647	13.301	3.624	Agree with
Training to Become an Athlete	0.816	21.926	3.824	14.620	3.654	Agree with
Group Games	0.674	22.377	3.137	9.842	3.729	Agree with
Tantalization	0.890	20.850	2.068	4.401	3.475	Agree with

Table 1: Conbach alpha reliability, Mean, Standard deviation, Variance, and Interpretation of students' needs related to After Physical Activity for the PANQ with the EBMRT.

Discussion

Hearing impairment, deafness, or hearing loss refers to the total or partial inability to hear sounds. People who are profoundly deaf can hear nothing at all and can find themselves totally reliant on lip-reading or sign language. Some people are severely deaf and rely on lip-reading to communicate with others. People who are profoundly deaf can hear nothing at all and can find themselves totally reliant on lip-reading or sign language. Some diseases or circumstances that can cause deafness include: chicken pox, cytomegalovirus, mumps, meningitis, sickle cell disease, syphilis, lyme disease, a treatment for tuberculosis (TB), streptomycin, that is believed to be a key risk factor Trusted Source, hypothyroidism, arthritis, some cancers, teenagers exposed to second-hand smoke. Although these factors can be encountered at different periods across the life span, individuals are most susceptible to their effects during critical periods in life. Genetic factors: Include hereditary and non-hereditary hearing loss; and intrauterine infections such as rubella and cytomegalovirus infection for Prenatal Period; Birth asphyxia (a lack of oxygen at the time of birth, hyperbilirubinemia (severe jaundice in the neonatal period), low-birth weight, and other perinatal morbidities and their management for Perinatal Period; Chronic ear infections (chronic suppurative otitis media), collection of fluid in the ear (chronic nonsuppurative otitis media), meningitis and other infections for Childhood and Adolescence; Chronic diseases, smoking, otosclerosis, age-related sensorineural degeneration, sudden sensorineural hearing loss for Adulthood and Older Age. The impact of unaddressed hearing loss of life at individual level: Communication and speech; Social isolation, loneliness and stigma; Prevention; Identification and management.

The word deaf is used to describe or identify anyone who has a severe hearing problem. Sometimes it is used to refer to people who are severely hard of hearing too. Using Deaf with a capital D to refer to people who have been deaf all their lives, or since before they started to learn to talk. Can a deaf person talk? It's possible for deaf people to learn how to speak. People who became deaf after acquiring some language skills often have an easier time learning to speak. How does a deaf person communicate? Deaf people have two main ways of communicating with others – lip reading and sign language. Learn more about these two forms of communication: Lip reading; this is a technique to understand speech by visually interpreting the movements of the lips and tongue, using facial expression and body language to help. Sign language comes in many forms. In the UK, deaf people use British Sign Language (known as BSL), but every country around the world has their own form of sign language. For deaf people in Thailand, access to quality education is not a given. A residential schooling system provides opportunities for educational success, at a time where some children may be falling through the cracks. Thai Sign Language (TSL), the main language of instruction at the School for the Deaf (SFD) by many deaf and hard-of-hearing people in Thailand. TSL, according to the Ethnologue, originates from

both indigenous sign languages and American Sign Language (ASL), which was introduced when the first deaf education program was established in 1951 at a public school in Bangkok. Fifty-two percent of signs in TSL are cognates with ASL. Its other roots lie in Chiang Mai Sign Language and Bangkok Sign Language. School for the Deaf in Thailand; in 1951, the Department of Education approved the establishment of the first experimental unit for teaching deaf youths by using 1 classroom at Sommanatwihan Temple, Bangkok. Therefore established "Setthasathien Foundation" in 1952 was established as "Foundation for the Aid of the Deaf" under Royal Patronage. In 1961, the School for the Deaf Thung Mahamek was established in Bangkok. Since the year 1961 until the present, the Ministry of Education opened the Schools for the Deaf for teaching young people with deaf disabilities in all provinces throughout the country. Physical activity needs of students with hearing impairments in the Schools for the Deaf; human development encompasses a relationship between genetics and environment factors including affective, social, cognitive and motor development. Physical activity can reduce the risk of several diseases also stimulating health promotion, feelings expression, formation of critical awareness, autonomy development, motivation for study and others. In case of deaf students, physical education also has other benefits, including social inclusion. Many challenges need to be overcome on adapted physical education for deaf students such as the lack of bilingual teachers and also the lack of specific signs of some important words for physical education, the benefits of physical activity for deaf children, highlighting some adaptations for helping on teaching and learning and development of this public.

Participating in physical activities for the deaf students; this results shows that group games such as football, netball work well for everyone and particularly for deaf students as they have clearly defined rules. Staying in position to catch, hit, kick or throw a ball all requires balance, which consistent with the concept of Pentagon for Learning and Play marked Deaf Awareness Week, to reveal some great outdoor games for your deaf children to help improve balance and gross motor skills. Deaf children have the potential to attain and achieve the same as any other child, given the right level of support, most teaching and learning to take place through the main senses of sight and sound. Physical activity programs for deaf individuals, indicated that language delay associated with hearing impairment has an adverse impact on a student's success in physical education. The earlier age of onset and the severity of hearing loss increase the negative impact of language delay on total development. One adverse effect of language delay for the Deaf children and youth may be a low self-concept, which can lead to underachievement. Creating a sense of community with a support network and strong group identity, as exists in Deaf sport, is probably the most effective way to enhance self-esteem and confidence. The reaction time tester for eye-to-body reaction test apparatus for the deaf students of their physical activity; the relationships between simple and complex reaction times (RTs) with the physical activity performed weekly, the physical fitness and selective attention in children of the third cycle of primary education. The simple RT was related in a significant way with physical fitness, while the complex RT was related significantly to attend capacity and physical fitness. Responding to multiple stimuli of different modalities has been shown to reduce reaction time (RT), yet many different processes can potentially contribute to multisensory response enhancement. A visual RT task to a patient with profound bilateral cortical deafness and an intact auditory brainstem response, without the need for conscious perception was presented. Eye-to-body movement reaction time tester apparatus; examining the visual reaction time values of adolescents according to gender, hearing impairment and dealing with sports situation. The visual reaction time values of dominant and non-dominant hands were measured by reaction measurement device in laboratory. According to statistical analyze results, it was determined that there was significantly difference between visual reaction time values of students in terms of gender and hearing impairment situation and male and hearing impaired students had faster visual reaction time values compared to female and normal hearing students ($p<0.05$). However, they could find only a few scientific papers dealing with the psychomotor peculiarities of the disabled people, deaf people among. There were no significant changes in simple and complex reaction time and hemodynamic parameters (double product) of athletes with inborn hearing impairment after the 6-minute walking test. Movement of the body to the target position through the mobile phone; an investigation into how hand usage is affected by different body postures (Sitting at a table, Lying down and Standing) when interacting with smart phones. Researchers theorize a list of factors (smart phone support, body support and muscle usage) and explore their influence the tilt and rotation of the smart phone. From this we draw a list of hypotheses that we investigate in a quantitative study. They varied the body postures and grips (Symmetric bimanual, Asymmetric bimanual finger, Asymmetric bimanual thumb and Single-handed) studying the effects through a dual pointing task. For this research, physical activities for over 10 hearing-impaired students needed a research assistant with students at a rate of 1 to 5, and that teachers or people who could communicate with students using More sign language In addition, some students have redundant disabilities, such as communication impairments and physical impairments, so that the organization of the activities requires considerable time and help. Must consider doing activities together both in terms of safety, individual rights and movement are provided.

Conclusion

There are 77 Hearing Disability Schools under the Ministry of Education opened a special school for teaching youths with deafness throughout the country in all 77 Provinces in 6 Regions of Thailand. In this research study, a Hearing Disability School from each Region as a sample group was selected. The quantitative data was collected by mailing questionnaires to a sample group in an educational institution of the audiovisual schools that were cooperating as a research project coordinator. Assessing a sample size consisted of 255 hearing disabled students whose age ranged from 14 to 23 years old that response of their perceptions in 6 audiovisual schools. An interview with the school director, Deputy Director of Learners Development, and Teachers of the physical education learning core consisted of 18 personnel for the qualitative method. Creating the 36-item Physical Activity Need Questionnaire (PANQ) was assessed students' perceptions to their physical activity needs with time schedules in 9 weeks, 2 times a week, 50 minutes each time on 6 rating levels in five options. The experimental group developed a response of eye activity to the movement of the body to the target position. Overall, the physical activity was significantly better than before, at the .001 level. Therefore, the control group was no different before or after participating in physical activities was compared. Physical activity needs of students with hearing impairments in audiovisual schools found that demanding physical activities were walking up the stairs, washing the crockery, doing housework, playing sports and cooking. What are the needs for physical activities? Regular physical activity

and physical fitness are especially important in maintaining the health and well-being of children of all ages and all abilities. Several studies have shown that deaf children are more likely to have difficulties with balance than their peers who have full hearing. Students' needs for their physical activities was in the group games, training to become an athlete, activity for health, sit-up activity, effective communication, and sitting unsupported or walking are possible. Empirical results of physical activities held in schools. Most of the respondents reported that the students had increased physical health. Fewer illnesses there were a gathering to discuss the development of sports activities. Strengthen the small muscles. Good mobility strengthens and characterizes a large bundle of student personnel. From physical activity causing teamwork, unity, and kindness to helping each other, most of the students do physical activities organized by the school. Forming a habit of loving exercise has a high performance in using high levels of physical strength and has a portfolio of physical activities in a hobby/ developmental format and received various awards of sport both at the regional and national levels. Problems/ obstacles arising from the organization of physical activities, most respondents reported problems and obstacles, such as communicating teachers to students. Lack of equipment and space that requires various forms of activities is limited and narrow. Lack of consistency and continuity in doing activities, students rarely cooperate in recreational activities because of a lack of self-confidence. The students lack unison because of the imperfect physical and intellectual aspects, hearing, student health problems, and exercise cannot be fully practiced during the rainy season, lack of personnel with knowledge and skills in organizing physical activities. The activities are not varied and cover all groups of students. Because some people have double disabilities, activities are not available according to the skills and interests of the student and resulting illness from accidents in doing activities, etc.

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