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Physical fitness and physiological parameters between deaf/dumb and blind students of Amravati University: A comparative study

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ABSTRACT

The purpose of the study was to find out the study of physical fitness and physiological parameters between deaf/dumb and blind Students of Amravati University. For the present study the source of subjects were selected from the deaf/dumb and blind Schools of Amravati University. Eighty (80) students were selected as the subjects from deaf/dumb and blind schools of Amravati University. 40 students were selected from deaf/dumb and 40 from blind schools of Amravati University. The subjects were selected by using simple random sampling method. In this study comparison of two physical variables strength and flexibility and two physiological variables fat percentage and Exhale Capacity were taken into consideration from both deaf/dumb and blind students of Amravati University. For the present study data pertaining to various physical and physiological variables were be collected through the administration of various tests. The data for the study is to be collected and statistical analysis and interpretation of data were be done by using statistical technique 't' test because only two groups are considered one group from deaf/dumb population from various deaf/dumb schools of Amravati University and other group from blind section of the various schools of Amravati University.

Keywords: Physical fitness; physiological; deaf/dumb; blind

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INTRODUCTION

Physical education has been considered as an essential part of human life (Sun et al., 2017). Education must be concerned with developing optimal organic health, vitality, emotional stability, social consciousness, and knowledge, and wholesome attitude, spiritual and moral qualities (Sun et al., 2017). The typical undergraduate physical education major, with a teacher preparation emphasis, is no longer a direct path to graduate programs in exercise physiology (Richards et al., 2019). Physical education is not a new word in Indian context, is concerned with improving its fields of education and with increasing the public's knowledge and appreciation of physical education (Mahulkar, 2021). From time immemorial Indians have laid emphasis on 'yoga' and physical exercise not only to keep fit but to prevent and treat the physical ailments (Uppal & Gautam, 2017). For example, any limitations of the oxygen delivery system to the cells will reduce the effectiveness of the delivery; regardless of vital capacity is the ability to take in more air per unit of time with fewer, but deeper inspiration, thus prolonging the onset of fatigue in the respiratory muscle (Mahulkar, 2021). The great ancient Rishis, Vedas and Puranas attached much emphasis on physical fitness, Meditation, dhayana and spiritualism. As

physical education and sports help in the development personality of an individual no one deny its significance in the development of fundamental skill essential for the daily life activities of human beings and social skills, which aid in making him a well adjusted and useful member of society (Anwari, 2017). A highly systematic well developed programme of physical education and sports and games is basically a product of modern historical programme (Marschark et al., 2013).

Physical fitness is the general capacity to adapt favorably to physical effort. Individuals are physically fit when they are able to meet both the usual and unusual demands of daily life, safely and effectively with undue stress or exhaustion. Physical fitness is the capacity to carry out reasonably well various forms of physical activities without being unduly tired and includes qualities important to the individual's health and well-being. If that takes them from one place to another, we call the process locomotion (Cherni et al., 2020). The meaning of human Physiology is the study of body function. In physiology we study how our organs, systems, tissues, cells and molecules within cells work and how their function are put together to maintain our internal environment. Exercise physiology is the biological study of the functions of living organisms and their parts. This component of sport science is essentially concerned with the assessment of how the body responds to single or repeated bouts of exercise. Physical fitness implies a relation between the task and work to be performed and the individual's capacity to perform that work moreover the recovery is faster and quicker (Kanchan & Balwal, 2012).

Physiological assessments can involve heart rate monitoring, expired-air collection, lactate profiling and/or blood biochemistry analysis (Birch et al., 2004). Moreover, a range of sport-specific protocols have been developed allowing exercise physiologists to perform a variety of physiological appraisals in a sport specific context (Ahmed et al., 2010).

Exhale capacity is the total amounts of air that can be forcibly expire after a complete inspiration has been used frequently as a measure of adequacy of the respiratory system. Although it measures the approximately capacity of the lungs, recent information indicates it is of little use in predicting ability to perform tasks of endurance. Attitudes of Children and Adolescents toward Persons Who Are Deaf, Blind, Paralyzed or Intellectually Disabled obviously other factors are more important (de Laat et al., 2013). For example, any limitations of the oxygen delivery system to the cells will reduce the effectiveness of the delivery; regardless of vital capacity is the ability to take in more air per unit of time with fewer, but deeper inspiration, thus prolonging the onset of fatigue in the respiratory muscle of Abilities in Deaf and Blind Adolescents (Gawlik & Zwierzchowska, 2006; Zwierzchowska et al., 2020).

In physical fitness, body composition is used to describe the percentages of fat, bone and muscle in human bodies, However, human efforts for improving physical fitness through physical activities have been quite old (Devinder, 2008). Because muscular tissue takes up less space in our body than fat tissue, our body composition, as well as our weight, determines leanness. Two people of equal height and body weight may look completely different from each other because they have a different body composition (Hopkins et al., 1987). The human body is composed from many major components at the cellular and tissue levels. These include water, minerals, protein and fat. Increases in the levels of fat components are detrimental to health and also sports performance. We need to exercise regularly all our life, and should exercise more, not less, as we get older.

The skin fold estimation methods are based on a skin fold test, also known as a pinch test, whereby a pinch of skin is precisely measured by calipers at several standardized points on the body to determine the subcutaneous fat layer thickness. These

measurements are converted to an estimated body fat percentage by an equation. Some formulas require as few as three measurements, others as many as seven. The accuracy of these estimates is more dependent on a person's unique body fat distribution than on the number of sites measured. As well, it is of utmost importance to test in a precise location with a fixed pressure (Devinder, 2008).

Fat mass include adipose tissue, whereas fat-free mass includes water, protein and minerals. Muscle contraction occurs through the action of chemical messages by nerves that supply the muscles (Singh et al., 2014). Large amount of fat mass are associated with health problems. Being physically active has also been proven to help build healthy bones, joints, and muscles and helps to perform better performance in competitions. In essence a large fat mass results in obesity and the various health problems associated with being obese e.g. (cardio vascular diseases, diabetes, cancers, etc). If that takes them from one place to another, we call the process locomotion. A large fat mass is also inappropriate for a sports performer, where there is requirement for low body fat and increased muscle mass. There is an inverse relationship between fat mass and performance of activities that involve jumping or running, although not for distance swimming (Kossewska, 2008).

Strength is perhaps the most important motor ability in sports because all movements in sports are caused by muscle contraction (Tsimaras et al., 2010). Therefore, strength is a part and parcel of all-motor abilities, technical skills and tactical actions. The development of strength has almost certainly been the greatest factor to enhance performance in sports but it is not a new concern (Sarchet et al., 2014).

The purpose of the study was to find out the Study of Physical Fitness and Physiological Parameters Between Deaf/dumb and blind Students of Amravati City. The importance of this research is carried out so that deaf and blind students can know their level of physical fitness and physiological parameters.

RESEARCH METHODS

The subjects selected in this study were from deaf/mute and blind schools in Amravati City. For the present study total 80 students were selected as the subjects from deaf/dumb and blind schools of Amravati City. 40 students were selected from deaf/dumb and 40 from blind schools of Amravati City. The subjects were selected by using simple random sampling method.

The equipment used for data collection are goniometer, hand grip dynamometer, skinfold clipper and peak flow meter. For the present study data pertaining to various physical and physiological variables were be collected through the administration of various tests. The criterion measures selected to collect the data for testing of hypotheses.

RESEARCH RESULT

The data for the study is to be collected and statistical analysis and interpretation of data were be done by using statistical technique ‘t’ test because only two groups are considered one group from deaf/dumb population from various deaf/dumb schools of Amravati University and other group from blind section of the various schools of Amravati University. In this study two physical variables I.e. strength and flexibility and two physiological variables that is fat percentage and Exhale Capacity were taken into consideration from both deaf/dumb and blind students of Amravati University.

Level of significance:

The level of significance is 0.05 for testing the hypothesis.

Findings of Study:

The data for the present study was collected from 40 deaf/dumb school students and 40 blind school students of Amravati University selected randomly. The statistical analysis of the data gathered for the comparison of fat percentage exhale capacity, grip strength and flexibility of deaf/dumb and blind school students of Amravati University. The findings of the study can be given under the following two headings:

Table 1. Mean Difference of Hand Grip Strength Between Deaf/Dumb School Students and Blind School Students of Amravati University

Group	Mean	S.D.	M.D.	O.T	Tabulated 't'
Deaf/Dumb	39.75	7.37	8	3.50	2.00
Blind	31.75	7.07			

Level of significance =0.05

Table No. 1, reveals that there is difference between means of deaf/dumb group and blind group because mean of Deaf/dumb group is 39.75 which is greater than the mean of Blind group 31.75 so this mean difference is found as 8.To check the significant difference between Deaf/dumb and Blind groups the data was again analyzed by applying't' test. Before applying 't' test, standard deviation is calculated between Deaf/dumb and Blind group which is **7.37** and 7.07 respectively and the calculated value of 't' is found as 3.50, is greater than tabulated 't' which is 2.00 at 0.05 level of significance. This shows that Deaf/dumb school students are having more grip strength than Blind school students. Hence the hypothesis which was given by the researcher is accepted. This is presented graphically in figure-1.

Graph 1. Graphical Representation of Mean Difference of Hand Grip Strength Between Deaf/Dumb and Blind Students

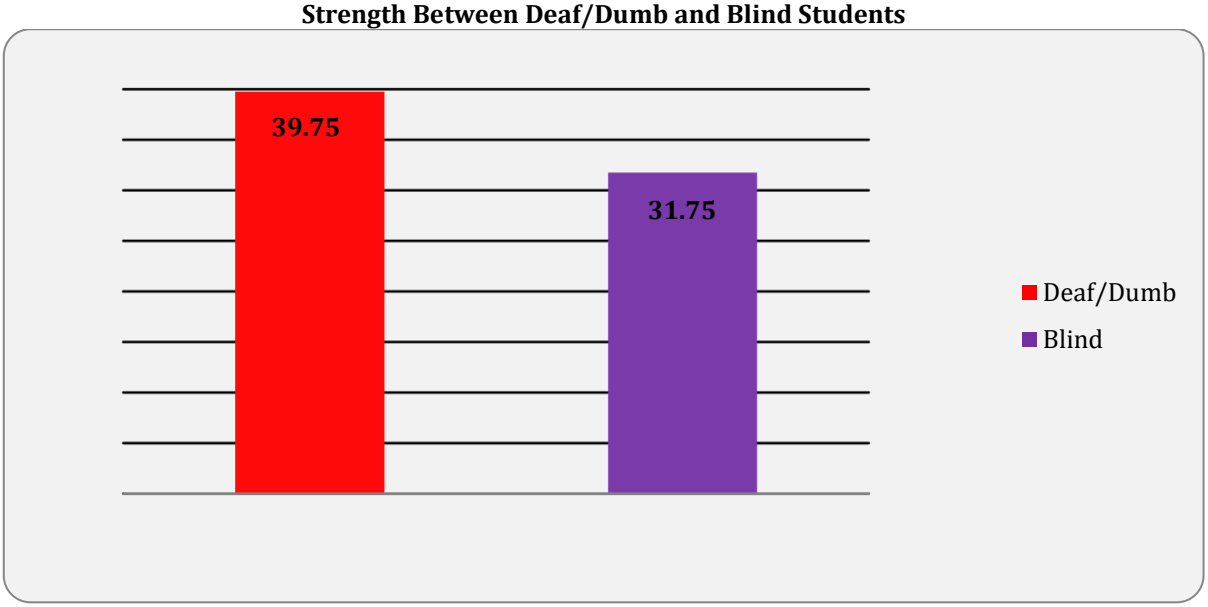


Table 2. Mean Difference of Flexibility Between Deaf/Dumb School Students and Blind School Students of Amravati University

Group	Mean	S.D.	M.D.	O.T	Tabulated 't'
Deaf/Dumb	**51.01**	**7.70**	**9.74**	**5.01**	**2.00**
Blind	**41.27**	**4.00**			

Level of significance =0.05

Table No.2 reveals that there is difference between means of Deaf/dumb group and Blind group because mean of Deaf/dumb group is 51.01 which is greater than the mean of Blind group which is 41.27 and therefore mean difference is 9.74 to check the significant difference between Deaf/dumb and Blind group data is again analyzed by applying't' test. Before applying' test, standard deviation is calculated between Deaf/dumb and Blind group which is 7.70 and 4.00 respectively and then the calculated value of 't' is found as 5.01, is greater than tabulated 't' which is 2.00 at 0.05 level of significance. This shows that Deaf/dumb school students are having more flexibility than Blind school students. Hence the hypothesis which was giving by the researcher is accepted. This is presented graphically in figure No.2.

Graph 2. Graphical Representation of Mean Difference of Flexibility Between Deaf/Dumb and Blind Students

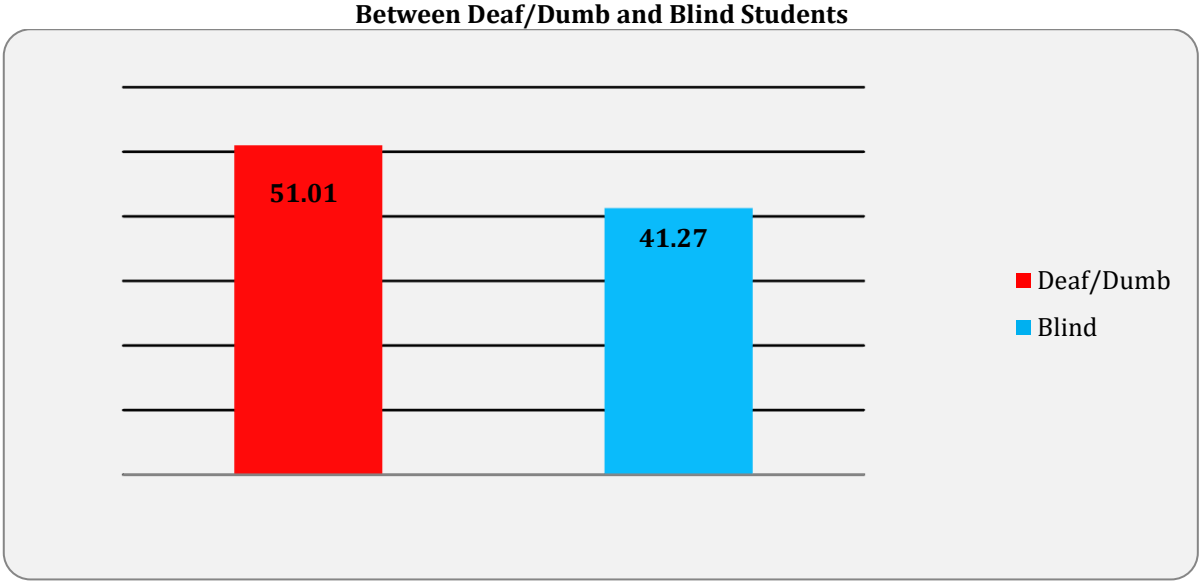


Table 3. Mean Difference of Fat Percentage Between Deaf/Dumb School Students and Blind School Students of Amravati University

Group	Mean	S.D.	M.D.	O.T	Tabulated 't'
Deaf/Dumb	24.42	1.58	0.07	5.04	2.00
Blind	21.96	1.51			

Level of significance =0.05

Table No.3 reveals that there is difference between means of Deaf/dumb group and Blind group because mean of Deaf/dumb group is 24.42 which is greater than the mean of Blind group which is 21.96 and therefore mean difference is 0.07 to check the significant difference between Deaf/dumb and Blind group data is again analyzed by applying't' test. Before applying' test, standard deviation is calculated between Deaf/dumb and Blind group which is 1.58 and 1.51 respectively and then the calculated value of 't' is found as 5.04, is greater than tabulated 't' which is 2.00 at 0.05 level of significance. This shows that Deaf/dumb school students are having more fat percentage than Blind school students. But it shows negative sign of health. Hence the hypothesis which was giving by the researcher is accepted. This is presented graphically in figure No.3.

Graph 3. Graphical Representation of Mean Difference of Fat Percentage Between Deaf/Dumb and Blind Students

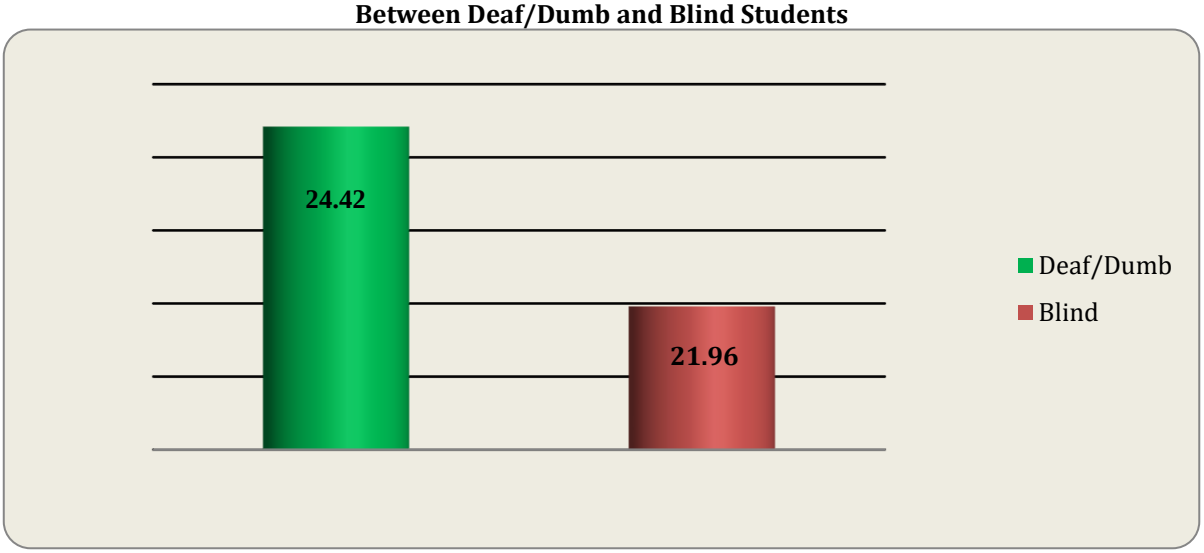


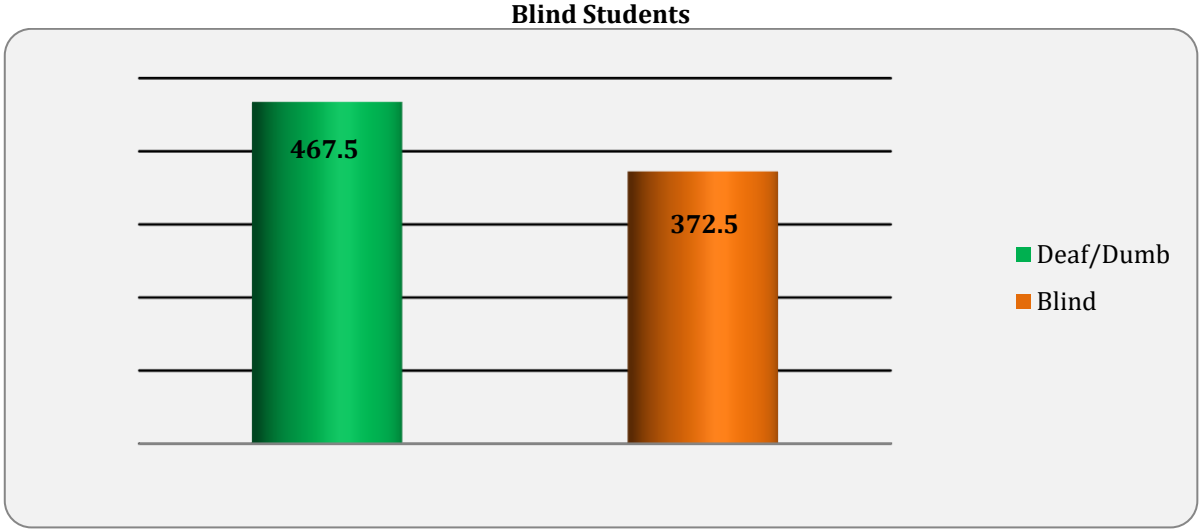
Table 4. Mean Difference of Exhale Capacity Between Deaf/Dumb School Students and Blind School Students of Amravati University

Group	Mean	S.D.	M.D.	O.T	Tabulated 't'
Deaf/Dumb	467.5	89.25			2.00
Blind	372.5	75.17	95	3.64	

Level of significance =0.05

Table No.4 reveals that there is difference between means of Deaf/dumb group and Blind group because mean of Deaf/dumb group is 467.5 which is greater than the mean of Blind group which is 372.5 and therefore mean difference is 95 to check the significant difference between Deaf/dumb and Blind group data is again analyzed by applying't' test. Before applying' test, standard deviation is calculated between Deaf/dumb and Blind group which is 89.25 and 75.17 respectively and then the calculated value of 't' is found as 3.64, is greater than tabulated 't' which is 2.00 at 0.05 level of significance. This shows that Deaf/dumb school students are having more exhale capacity than Blind school students. Hence the hypothesis which was giving by the researcher is accepted. This is presented graphically in figure No.4.

Graph 4. Graphical Representation of Mean Difference of Exhale Capacity Between Deaf/Dumb and Blind Students



DISCUSSION

In the beginning of this study it was hypothesized that there might be significant difference in physical fitness and physiological parameters between deaf/dumb and blind students of Amravati City.

The data were collected from Eighty (80) students were selected, among which Fourty (40) were deaf/dumb and Fourty (40) were blind students. The students were selected by using available sampling method. The following Physical and Physiological variables namely Strength, Flexibility, and Exhale capacity, Fat Percentage, were selected as criterion variables. The criterion variables were tested by the standardized test items. The Strength and Flexibility were measured by using Goniometer and Grip Dynamometer respectively.

The purpose of this study was to find out the selected physical fitness and physiological variables. The data pertaining to each of the selected physical fitness and physiological variables were examined by the special statistical techniques viz. mean, standard deviation and't' test.

In overall numerical and statistical analysis the comparison of physical fitness and physiological parameters in between deaf/dumb and blind students of Amravati City, it is found that there is significant difference in physical fitness and physiological parameters between deaf/dumb and blind students of Amravati City. Therefore the hypothesis which the researcher has given is accepted. Cumming et al., (1971) stated that deaf children have a much higher level of physical fitness in comparison with blind children. Contrary results were published by Hattin et al., (1986) They conducted tests on a ergocycle and stated that the endurance of deaf people was 9,5 % worse and maximum oxygen uptake was 17,5% worse than that of blind people. Results of conditioning tests of deaf and blind children may indicate a poor level of physical fitness (Gawlik & Zwierzchowska, 2006). Deafness and blindness is primarily a disability of communication rather than a disability of motor skill performance (Gawlik & Zwierzchowska, 2006).

CONCLUSION

On the basis of the result drawn with the mentioned methodology the following conclusion were drawn out. There was found significant difference in physical and physiological parameters between Deaf/Dumb and Blind students of Amravati University. The study showed the partially significant difference among the mean of selected items of the groups. The conclusion of this research work May aware the Deaf/Dumb and Blind students as well as players about physical and physiological parameters while performing any physical activity.

The researchers recommended the following suggestion for further students; (1) The same study may be repeated to compare the above said variables between male and female deaf/ dumb students only, (2) The same study may be repeated on the deaf/dumb and blind players of various games and sports, (3) The study was completed on the same subjects of college level, (4) It is recommended that this study can also be conduct on different age groups, (5) It is further recommended to see the physical and physiological parameters of different districts, (6) It is further recommended to take same study on other category of handicapped students.

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Tanggapan siswa terhadap pemanasan yang dilakukan dengan modifikasi permainan tradisional

Student responses to the warm-up carried out by modifying traditional games

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ABSTRAK

Dalam olahraga pemanasan selalu dilakukan dengan cara berlari atau *jogging* keliling lapangan. Pemanasan seperti ini sangatlah monoton untuk dilakukan, sehingga perlu kreatifitas guru Pendidikan Jasmani Olahraga Kesehatan dalam mengembangkan pemanasan agar indikator pemanasan bisa tercapai dan tidak monoton. Pemanasan tidak harus berlari keliling lapangan, pemanasan bisa dilakukan dengan cara bermain. Tujuan penelitian ini untuk mengetahui tanggapan siswa terhadap pemanasan yang dilakukan dengan modifikasi permainan tradisional. Penelitian ini merupakan penelitian pra eksperimen menggunakan desain *one shot case study*. Sampel penelitian siswa SMP N 1 Selakau Timur dan SMP N 03 Kubu berjumlah 71 siswa. Data dikumpulkan dalam penelitian ini menggunakan angket yang berisi tujuh pertanyaan. Angket diisi setelah melakukan pemanasan dengan enam modifikasi permainan tradisional yaitu, SOS level 1, SOS level 2, SOS level 3, Tupai dan Pohon, Bintang Beralih, dan Tangkap Jadi. Data yang diperoleh dianalisis menggunakan statistik deskriptif. Hasil penelititan menunjukan 100% permainan ini menyenangkan, 0% permainan ini membosankan, 93% permainan ini mengasikan, 95,8% permainan ini mudah untuk dipahami, 97,2% permainan ini mudah untuk di lakukan, 98,6% permainan ini bisa meningkatkan semangat untuk melakukan pemanasan, 91,5% pemanasan dengan permainan ini lebih menyenangkan dibandingkan dengan *jogging*. Ternyata enam modifikasi permainan tradisional ini juga bisa meningkatkan denyut nadi ke zona latihan yaitu dengan rata-rata denyut nadi 67%.

Kata Kunci: Permainan tradisional; pemanasan; kesenangan

ABSTRACT

Warming up is always done by running or jogging around the field. Warming up like this is very monotonous to do, so it needs the creativity of Physical Education and Sports Health teachers in developing heating so that the heating indicator can be achieved and not monotonous. Warming up does not have to run around the field, warming up can be done by playing. The purpose of this study was to determine students' responses to the warm-up carried out by modifying traditional games. This research is a pre-experimental research using a one shot case study design. The research sample of students of SMP N 1 Selakau Timur and SMP N 03 Kubu amounted to 71 students. Data were collected in this study using a questionnaire containing seven questions. The questionnaire was filled out after warming up with six modifications to traditional games, namely, SOS level 1, SOS level 2, SOS level 3, Squirrel and Tree, Switching Star, and Catch So. The data obtained were analyzed using descriptive statistics. The results of the study show that 100% of this game is fun, 0% of this game is boring, 93% of this game is fun, 95.8% of this game is easy to understand, 97.2% of this game is easy to do, 98.6% of this game can improve enthusiasm to warm up, 91.5% warm-up with this game is more fun than jogging. It turns out that these six traditional game modifications can also increase the pulse rate to the training zone, with an average pulse rate of 67%.

Keywords: Traditional games; warm-up; enjoyment

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PENDAHULUAN

Olahraga sangat penting untuk dilakukan, dengan berolahraga bisa meningkatkan kemampuan keterampilan gerak dasar dan kecabangan serta bisa membuat tubuh menjadi lebih sehat (Bangun, 2016; Kostermans, 2017). Pada dasarnya dalam setiap proses pembelajaran olahraga baik itu olahraga atletik, senam, maupun olahraga permainan selalu di awali dengan pemanasan (Yudanto, 2011). Dalam olahraga pemanasan sangat penting untuk dilakukan. Pemanasan adalah salah satu bagian aktifitas fisik yang dilakukan pada saat sebelum melakukan latihan inti (Mariyanto, 2010). Melakukan pemanasan sebelum melakukan aktifitas olahraga akan meminimalisir resiko cidera saat melakukan olahraga inti.

Pemanasan mempunyai beberapa indikator yang harus dicapai seperti, suhu tubuh meningkat, denyut jantung meningkat, keluar keringat dan lainnya yang menyebabkan tubuh siap melakukan kegiatan yang lebih berat. Ketika indikator pemaanasan sudah tercapai maka resiko cedera akan lebih sedikit saat melakukan latihan inti (Nurkadri, 2017). Pemanasan sangat penting dilakukan untuk semua cabang olahraga, karena dengan melakukan pemanasan sebelum melakukan aktifitas olahraga akan meminimalisir resiko cidera saat melakukan olahraga inti. Seperti yang diketahui olahraga dilakukan secara teratur jika seseorang tidak melakukan pemanasan dengan benar maka bisa mengalami cidera, seperti yang dikatakan oleh Fradkin et al., (2006); Supriyadi dan Supriyono, (2017) seseorang yang mengalami cidera diakibatkan kurangnya pemanasan. biasanya seseorang yang sudah mengalami cidera akan menghambat aktifitas lainnya. Seperti yang dikatakan oleh Nurcahyo (2010), cidera bisa membuat seorang atlit kehilangan waktu untuk mengikuti latihan dan bahkan pertandingan. Akibatnya, atlet tidak mempunyai kesempatan untuk menunjukkan prestasi terbaiknya Oleh sebab itu pemanasan penting untuk dilakukan sebelum melakukan olahraga inti.

Didalam dunia pendidikan khususnya mata pelajaran pendidikan jasmani terbilang cukup menyedihkan. Hal ini dikarenakan saat ingin memulai pembelajaran di sekolah terkadang guru menyuruh peserta didik untuk jogging atau lari sebagai bentuk pemanasan yang diberikan oleh guru olahraga, sedangkan guru olahraga hanya duduk di bawah pohon dan memegang peluit (Jefri et al., 2020). Pemanasan dengan menggunakan *jogging* atau lari kurang efektif untuk di lakukan, karena tidak semua siswa tertarik melakukan pemanasan dengan menggunakan *jogging*, karena ketika siswa tidak suka melakukan pemanasan dengan menggunakan *jogging* atau lari keliling lapangan maka siswa tersebut akan berjalan sehingga denyut nadi tidak mengalami peningkatan. Seharusnya guru lebih kreatif dalam mengembangkan pemanasan dengan tujuan untuk meningkatkan minat siswa. Oleh karena itu, guru penjas harus lebih banyak mengembangkan berbagai aktivitas pemanasan dengan menggunakan permainan. Permainan yang di berikan saat pemanasan ini bertujuan untuk meningkatkan minat siwa sehingga bisa meningkatkan aktifitas keterampilan gerak dan hasil pemanasan yang lebih merata (Hartati et al., 2013).

Beberapa penelitian mengatakan bahwa pemanasan yang dilakukan dengan cara bermain akan lebih efektif dilakukan dalam pemanasan. Penelitian yang dilakukan oleh Finalosa, 2014; Saputra, 2015; Lestari, 2016; Tanjung, 2015; Yusuf, 2014 mengatakan bahwa permainan bisa meningkatkan denyut nadi 40 %, 13,0% keaktifan gerak, meningkatkan efektivitas pembelajaran serta meningkatkan minat siswa. Dari beberapa penelitian bisa disimpulkan bahwa melakukan pemanasaan dengan cara bermain bisa meningkatkan denyut nadi serta minat siswa untuk lebih aktif bergerak. Ketika minat siswa meningkat dengan sesuatu yang diberikan maka secara otomatis keaktifan untuk

bergerak semakin meningkat dan ketika keaktifan gerak mengalami peningkatan maka denyut nadi juga mengalami peningkatan. Sehingga tujuan dari pemanasan bisa tercapai dan resiko cidera akan semakin sedikit.

Dari permasalahan yang ada saat ini yaitu guru pendidikan jasmani memberikan pemanasan dengan cara *jogging* atau berlari keliling lapangan. oleh sebab itu peneliti akan membuktikan permasalahan yang ada dengan cara menyebarkan angket pra penelitian, yang mana dalam angket pra penelitian ini menanyakan bagaimana guru memberikan pemanasan kepada siswanya. Angket diberikan kepada 52 siswa SMP N 1 Selakau Timur. Berdasarkan hasil dari penyebaran angket ini dapat disimpulkan bahwa 96,2% mengatakan guru olahraga memimpin baris berbaris sebelum melakukan pemanasan, 98,1% mengatakan guru olahraga memimpin doa sebelum melakukan pemanasan, 96,2% mengatakan guru olahraga memberikan pemanasan sebelum melakukan aktifitas inti, 92,3% mengatakan guru olahraga selalu memberikan pemanasan dengan cara jogging atau lari keliling lapangan, 88,5% mengatakan guru olahraga menentukan jarak saat melakukan lari atau *jogging*, 78,8% mengatakan guru olahragamenentukan waktu saat melakukan lari atau *jogging*, 88,5% mengatakan guru olahraga lebih banyak memberikan pemanasan dengan lari atau *jogging*, 88,5% mengatakan guru olahraga pernah memberikan pemanasan dengan selain lari atau *jogging*, 88,5% mengatakan guru olahraga lebih banyak memberikan pemanasan dengan lari atau *jogging*, 17,3% mengatakan guru olahraga lebih banyak memberikan pemanasan selain lari atau *jogging*. Sedangkan data yang didapat untuk pertanyaan nomor 11 yaitu 1,9% mengatakan bermain bola, 7,7% mengatakan senam, 5,8% mengatakan pus up dan 84,6% mengatakan tidak ada.

Maka perlu adanya solusi yaitu dengan cara memberikan sebuah permainan tradisional SOS yang sudah dimodifikasi menjadi beberapa tingkatan level yaitu level 1, level 2, level 3, permainan tupai dan pohon, permainan bintang beralih, dan permainan tangkap jadi. Dari paparan di atas diharapkan pemanasan dengan menggunakan enam permainan ini bisa meningkatkan minat siswa untuk melakukan pemanasan.

METODE PENELITIAN

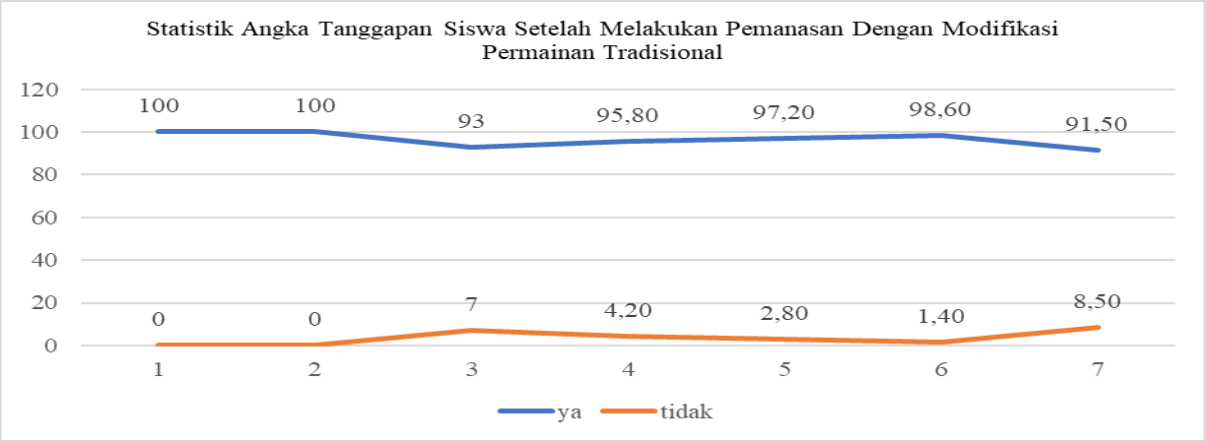
Penelitian ini menggunakan metode pra eksperimen (Suriadi et al., 2013). Penelitian ini menggunakan desain one shot case study. *Treatment* atau perlakuan yang diberikan adalah enam modifikasi permainan tradisional untuk pemanasan. Adapun enam modifikasi permainan tradisional yang akan diberikan adalah SOS level 1 akan dilakukan selama 5 menit, SOS level 2 akan dilakukan selama 5 menit, SOS level 3 akan dilakukan selama 5 menit, tupai dan pohon akan dilakukan selama 5 menit, bintang beralih akan dilakukan selama 5 menit dan tangkap jadi akan dilakukan selama 3 menit. Setelah diberikan *treatment* akan diobservasi dengan memberikan angket.

Angket yang diberikan adalah angket terbuka. Angket terbuka berisi pertanyan yang tidak disertai jawaban (Asiyah et al., 2019). Angket yang diberikan kepada siswa menanyakan tentang apakah permainan yang diberikan menyenangkan, apakah permainan yang diberikan membosankan, apakah permainan ini mengasikan, apakah permainan ini mudah untuk dipahami, apakah permainan ini mudah untuk dilakukan, apakah permainan ini bisa meningkatkan semangat untuk melakukan pemanasan, apakah pemanasan dengan menggunakan permainan ini lebih menyenangkan dibandingkan dengan *jogging*. Subjek penelitian ini adalah 71 siswa SMP, yang mana 71 siswa ini adalah gabungan antara SMP N 1 Selakau Timur 40 siswa dan SMP N 03 Kubu 31 siswa dengan rata-rata usia 14 tahun. Instrumen penelitian ini menggunakan angket. Angket yang sudah disiapkan akan disebarkan untuk mengetahui tanggapan siswa dalam

melakukan pemanasan dengan cara bermain. Penelitian ini menggunakan statistik deskriptif.

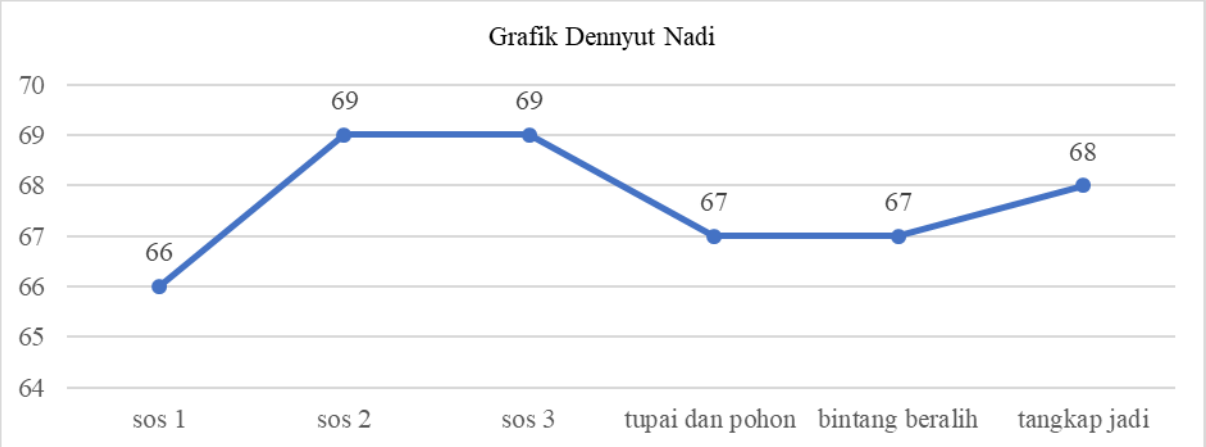
HASIL PENELITIAN

Hasil dari penyebaran angket yang diberikan kepada siswa SMP ini mengatakan bahwa pemanasan yang dilakukan dengan enam permainan tradisional yang diberikan lebih menyenangkan dibandingakan pemanasan dengan *jogging*. Hasil dari penyebaran angket detelah melakukan pemanasan dengan modifikasi permainan tradisional dapat dilihat dari statistik hasil tanggapan siswa sebagai berikut:



Grafik 1. Angket Tanggapan Siswa Setelah Melakukan Pemanasan dengan Modifikasi Permainan Tradisional

Dari grafik 1 dapat disimpulkan 100% mengatakan permainan ini menyenangkan, 0% mengatakan permainan ini membosankan, 93% mengatakan permainan ini mengasikan, 95,8% mengatakan permainan ini mudah untuk dipahami, 97,2% mengatakan permainan ini mudah untuk dilakukan, 98,6% mengatakan permainan ini bisa meningkatkan semangat untuk melakukan pemanasan, 91,5% pemanasan dengan permainan ini lebih menyenangkan dibandingkan dengan *jogging*. Selain enam permaianan tradisional ini menyenangkan, mudah untuk dilakukan, meningkatkan semangat melakukan pemanasan dan lebih menyenangkan dibandingkan *jogging*, enam permainan ini juga bisa meningkatkan denyut nadi siswa ke zona latihan yaitu 60% - 75% dari denyut nadi maksimal 2020 – umur. Adapun hasil perhitungan rata-rata umur siswa 14 tahun dan rata-rata denyut nadi siswa SMP yaitu sebagai berikut:



Grafik 2. Data Denyut Nadi

Dari grafik 2 dapat disimpulkan rata-rata denyut nadi permainan tradisional SOS level satu 66%, permainan tradisional SOS level dua 69%, permainan tradisional SOS level tiga 69%, permainan tradisional tupai dan pohon 67%, permainan tradisional bintang beralih 67%, permainan tradisional tangkap jadi 68%.

PEMBAHASAN

Enam permainan tradisional yang diberikan kepada siswa SMP sebagai pemanasan ini tidak hanya mudah untuk dilakukan tetapi permainan tradisional yang diberikan menyenangkan, dan meningkatkan semangat siswa untuk melakukan pemanasan dan yang tidak kalah pentingnya adalah dengan permainan tradisional ini bisa meningkatkan denyut nadi ke zona latihan dengan rata-rata 67%. Dengan demikian indikator pemanasan tercapai dan meminimalisir resiko terjadinya cidera. Ternya benar adanya ketika siswa sudah mempunyai ketertarikan atau kesenangan maka siswa akan lebih aktif atau lebih semangat dalam melakukan pemanasan dengan demikian denyut nadi juga mengalami peningkatan sehingga siswa minim akan resiko cidera.

Dari hasil penelitian ini, ada beberapa penelitian yang hampir sama yang dilakukan oleh Kurnia dan Septiana, 2020; Utama, 2013; Zulkarnain, 2015 mengatakan bahwa terdapat pengaruh yang signifikan terhadap motivasi siswa dalam pembelajaran olahraga dan terdapat pengaruh yang signifikan terhadap minat siswa. pemanasan yang dilakukan dengan permainan ternyata tidak hanya berpengaruh kepada minat siswa saja tetapi juga dapat meningkatkan fleksibilitas siswa, kesiapan siswa dalam pembelajaran 9,70%, meningkat kemampuan kerjasama (Kustiyam, 2017; Rusdi, 2018; Sholihin, 2019)

Dari beberapa penelitian di atas dapat disimpullkan bahwa dengan adanya penelitian ini, bisa menambah referensi tentang sebuah permainan baik itu permainan tradisional maupun modifikasi permainan tradisional yang bisa dilakukan sebagai pemanasan. Pemanasan yang dilakukan dengan cara bermain akan meningkatkan minat siswa, meningkatkan denyut nadi, meningkatkan fleksibilitas siswa, kesiapan siswa dalam pembelajaran, dan bahkan dengan bermain bisa meningkatkan kerjasama antar siswa.

KESIMPULAN

Berdasarkan hasil pembahasan, maka dapat disimpulkan bahwa pemanasan yang dilakukan menggunakan enam permainan tradisional sangat menyenangkan, meningkatkan semangat untuk melakukan pemanasan, sangat mudah dilakukan dan bisa meningkatkan denyut nadi. Penelitian ini juga mempunyai keterbatasan, keterbatasan dalam penelitian ini adalah gerak yang diberikan dalam permainan ini masih dalam kategori gerak dasar lari dan lompat. Gerakan lari dan lompat ini adalah salah satu gerakan dasar, yang mana gerakan ini biasanya dipelajari di Sekolah Dasar (SD). Gerakan dalam permainan ini bisa diubah menjadi gerakan tekhnik dasar dalam cabang olahraga apapun, sehingga pemanasan bisa lebih menarik dan untuk pembelajaran bisa dilakukan dengan mudah, karena di dalam pemanasan sudah dilakukan dalam permainan tradisional SOS level 1, level 2, dan level 3. Sedangkan kelemahan dari permainan tradisional tupai dan pohon, bintang beralih dan tangkap jadi ini tidak melibatkan pengaruh peningkatan motorik siswa.

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Function of sports and co-curricular activities on academic achievement in secondary schools students in ex-Fata Pakistan

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ABSTRACT

The study was designed to estimate the function of sports and co-curricular activities (CCA) on academic achievement among secondary schools students innewly merged districts in khyber Pakhtunkhwa Province ex Federally Administrative Tribal Areas (FATA). A sample size of 200 subjects was chosen from 10 high schools in the Frontier Region Kohat (FR Kohat). A questionnaire of five points likert scale after in quest of due authorization from heads of institutions was used to reach to the in facet of the recognizable truth. Arithmetical technique Mean, Percentage and Standard Deviation were run to inspect the collected records. The pollster analyze the link of sports and co-curricular contribution and its optimistic role to enhance educational performances of secondary schools students as to increase grade point average GPA. Sports and Co-curricular activities have optimistic outcome on students' management. Those student who chip in in co-curricular activities show good performance. When learners execute these activities fruitfully and appropriately they are awarded for their first-class concert and manners and thus they take conceit on their achievement. Due to these achievement, they haul off additional, they gain improved self-confidence, poise and self-honor. Finally it was concluded that involvement in sports and co-curricular activities have an imperative result on students accomplishment score and other related activities. They achieve higher GPAs higher score in colleges admittance trial, better turnout, squat failure tariff and good physical condition performance. Furthermore schools are faced budget problems. Most of heads of institutions are not interested in sports and co-curricular activities. Most of teachers and parents consider these activities as wastage of time. Facilities are not available for students. Stuents play on their own risk because proper security are not available for partakers. Students need proper nutrition but unfortunately balance diet not available for them.

Keyword: Sports; co-curricular; academic achievement

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INTRODUCTION

Sports and co-curricular activities (CCA) in school as well help students to decide their concealed talent. There are many students who are unidentified of their talent because they do not get revealed to sports and co-curricular activities in their schools. Sports and (CCA) help them to get the eagerness to want the field in which they are good in. There are many earners who are not very razor-sharp in studies or who have a subterranean penchant towards books but are good sports. In such cases, involvement in (CCA) helps them to hit upon a display place for themselves job (Khargharia, 2011). Identifying the implication of make ease of use scholastic actions that pick up and expand student experience as an critical piece of the program as well as in front of the ordinary didactic day, the School commission help the growth of (CCA) programs in accord with the policy familiar by the School division (Zheinjay, 2011).

According to Zehner (2011) kept students accept top GPAs and extra compliment hours than produce learner on the intact. 36.8% of all learners obtain both 15 or more

credit and a 3.0 or elevated semester GPA. Active learners perform greater still when SAT score, didactic principal and other aspect are prohibited. Vigorous students usual Grade Point Average go over the usual GPA for all students at every SAT phase. Those students who participate in sorts and (CCA) middling Grade Point Average go over the average Grade Point Average for all learners in every below graduate position cataloging and mainly colleges.

Sports and co-curricular activities been found to be interconnected not only academic performance but also other procedures of student improvement. A case-study exploring the stimulus for and contentment achieved by 127 college students partake in a summer-camp co-curricular activity from 2011 to 2014 found that student partaking in co-curricular activities played an influential role in subjects' routine in a subject within their chief (Rohm, Chang, & Park, 2016).

According to the United States Department of Education National Center for Education Statistics (NCES) and the National Catholic Education Association (NCEA), the commencement rate for Catholic secondary school students is Ninety nine percent as compare to eighty three point three percent for public high schools (McDonald & Schultz', 2016). These upshot more inveterate the achievement of students attendance Catholic high schools. In mutually reading and math, the fraction of capable and superior students was privileged for Catholic school than for public school learners. While a momentous issue secretarial for these difference is the victorious finishing point of center courses for graduation, it seem that a more wide-ranging come up to amplification these difference must explore how sports and co-curricular activities support the foundation syllabus. Exploratory the importance of sports and co-curricular chipping in would afford insights a propos the significance of agenda offerings in carry of the academic hub curriculum. Providing out-of-class actions is agreeable for the nation's upcoming in that in can facilitate in upward an excellent community (Riazameen, 2013). Furthermore, research has recommended that these sports and CCA not only fabricate good citizens but also promote academic success (Franchino, 2001). A study conduct in South Africa solicited data from both private and public schools. It found that educators felt that chipping in was advantageous in several ways, counting promote academic success, with 92.5% of the educator approving that learners should acutely chip in in sports and (CCA) (Kariyana, Maphosa, & Mapuranga, 2012). In a study that scrutinized the connection between students' partaking in school-based co-curricular actions and their accomplishment in physics in Nigeria, Adeyemo found that high school students who participated in sports and (CCA) verified momentous improvement in physics (Adeyemo, 2010). Adeyemo accomplished that "the value of sports and (CCA) should be highly emphasize" and that these activities "influence student grades" (Adeyemo, 2010). Similarly, a study of school possessions and student triumph in bucolic India found that schools with more (CCA) produced children that perform improved in mathematics than schools with fewer actions (Chudgar, Chandra, Iyengar, & Shanker, 2015). This study utilize a 60-item gadget and data from 88 government schools and 2,072 students. The research conclusion from this study contribute to the scope of the abovementioned research by Pascarella and Terenzini (2008) concerning the optimistic authority on student rendezvous (Bergen-Cico & Viscomi, 2012). Small or no data subsist concerning this correlation in the Catholic high school inhabitants. Additionally eighty five opint seven of Catholic high school graduates attend a four-year college (McDonald & Schultz, 2016), but the research regarding ACCAP and its probable contact on learner learning is limited in this outlook. Given the noteworthy asset in these program it would be important to know whether

there is a optimistic contact on the part of ACCA programs on academic results. The pretender contend that he had a legitimate right to become married and that the exploit the school had taken aligned with him was a infringement of his municipal liberty. The court expressly held that "sports ans co-curricular activities are an fundamental and flattering part of the total school program" (Sohn, 2012).

It was resoluted that those learners who participate in these activities had higher self-perceptions, a superior indulgent of their leadership, and better GPAs. The Chilton School District had a affluent history of hold up for a wide range of sports and (CCA). Studies have been conduct that "hold up the common theme that chipping in in sprts and (CCA) does connect to superior student accomplishment" (Sonnabend, 2012). Sonnabend maintain that those students who partake in sports and co-curricular activities have less absenteeism, minor loafer rates, less penalizing issues, and high again average GPAs than their peers who do not take part. This school district, however positioned in Wisconsin, has some 24 similarity to the inhabitants that will be studied here in terms of demographics and monetary data. Sports and (CCA) offer more chances to lengthen employability balance it is optimistically but external the curriculum but poise it. The value of sports and co–curricular activities to help out students to overpass the gap between the appreciative and its applications is documented (Khargharia, 2020).

RESEARCH METHODS

The composed information classified and tabularized through SPSS (Statistical packages of social sciences version 15), t-test and central tendency were used. While testing research preposition fundamental numerical process along with arithmetic technique were applied for preliminary and secondary data. For rapid analysis diagram, compound bar were used to make possible the study. A self-Administrated questionnaire was designed to achieve the research objectives. The questionnaire was composed of 15 items which were rated on five point Likert scales i.e., "Strongly Disagree". "Partially disagree" "Neither Agree Nor Disagree". Partially Agree". "Strongly Agree".

Population of the Study

All the students studying at secondary level in different Government and Public High Schools of Frontier Region of Kohat (Sub Division Dara) (FATA) organized population of the study.

Sample of the study

Sample of the study were 200 students from different high schools for boys of Frontier Region Kohat.

Table 1. Detail of Schools

No	Name of School	Population	Sample Size
1	GHS Bosti Khel FR Kohat	167	20
2	GHS Sheraki FR Kohat	183	20
3	GHS Sheen Dand FR Kohat	159	20
4	GHS Turkey Ismaeel FR Kohat	175	20
5	GHS Zarghon Khel FR Kohat	198	20
6	GHS Ara Khel FR Kohat	180	20
7	Oxford Public School FR Koht	176	20
8	Al Noor Public School FR Kohat	169	20
9	Comprehensive Public School FR Kohat	171	20

No	Name of School	Population	Sample Size
10	The City Public School FR Kohat	153	20
	Grand Total	**1731**	**200**

Tools for Data Collection

A total of 200 questionnaires were administered to respondents. 200 usable questionnaires were returned. Total response rate was 100 %.

Table 2. Detail Demographic Detail of the Respondents

Class-wise Distribution of the Respondents		
9th Class	10th Class	
100	100	
50%	50%	
Age-wise Distribution of the Respondents		
14-15	15-16	16-17
97	96	7
Respondents' Status Regarding Government and Private School		
Government	Private	
120	80	
9th Class teachers	**10th Class Teachers**	
15	15	
Total	30	

Data Analysis

Descriptive statistics such as central tendency measurement of dispersion mean percentage and standard deviation were utilized to describe the data. Questionnaire were rated of five point licket scale raising from strongly disagree to strongly agree. The collected data were summarized and analyzed using descriptive and inferential statistics. Descriptive statistics i.e., percentage, mean, standard deviation were applied. Inferential statistics i.e., t-test was applied to investigate the difference between the 9th grade students and 10th grade students.

RESEARCH RESULT

1. Sports and Co-Curricular Activities Help in Academic Performances

Table 1. Sport and Co-Curricular Activities Help in Academic Performances

No. of Respondents (n)		Strongly disagree	Partially Disagree	Neither agree nor disagree	Partially agree	Strongly agree	Mod	Std: Dev
200	**Frequency**	1	27	8	58	106	5	1.06
	Percentage	1	14	4	29	53		

Table 1 indicate that 53 % students strongly agreed that participating in sports and (CCA) help in academic performances while 29% partially agreed 14% students partially disagreed and 4% neither agreed nor disagreed and 1% strongly disagreed.

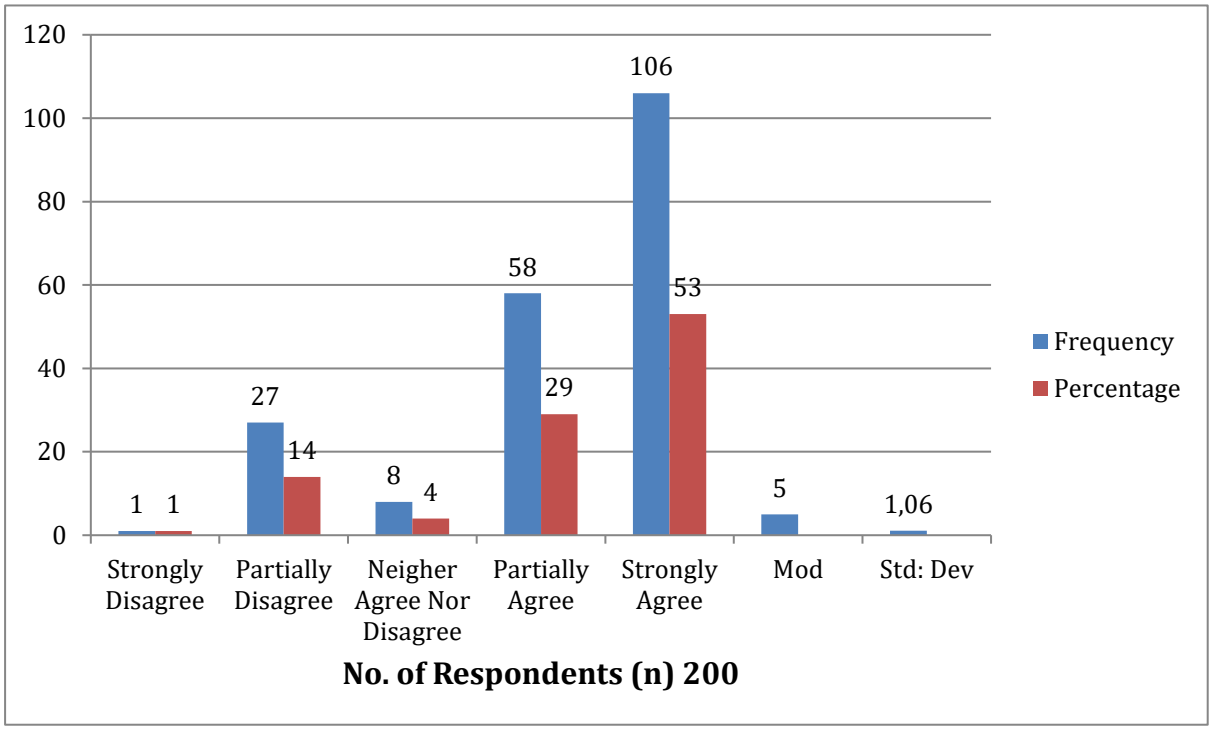
Table 2. Co-Curricular Activities Help in Academic Performances

Class	N	Mean	Std. Dev:	T	Df	Sig. (2-tailed)	Mean Diff.	Std. Err. Diff.
9th Class	100	4.26	1.021	.74	198	.463	.110	.150
10th Class	100	4.15	1.095					

Source: Self-Survey-2014-15

Table 2 shows that estimated assessment of t was acquired to be 0.74 which is Statistically not important (P>0.05) as it is a smaller amount than the chart worth of t at 0.05 stage of reliance. Explanatory and inferential scrutiny reveals that both students of 9th (Mean=4.26, SD= 1.021) and 10th (Mean=4.15, SD=1.095) classes strongly agreed that co-curricular activities help in academic performances.

Graph 1. Co-curricular activities help in academic performances



Source: Self-Survey-2014-15

2. Sports and Co-Curricular Activities Explore Hidden Potentials of Students

Table 3. Sport and Co-Curricular Activities Explore Hidden Potentials of Students

No. of Respondents (n)		Strongly Disagree	Partially disagree	Neither agree nor Disagree	Partially agree	Strongly agree	Mod	Std: Dev
200	**Frequency**	1	28	2	62	107		1.05
	Percentage	1	14	1	31	54		

Source: Self-Survey-2014-15

Table 3 shows that 54 % students strongly agreed that participating in Sports and (CCA) explore secret potentials of students. while 31% partially agreed 14% students partially disagreed 1% neither agreed nor disagreed and 1 % strongly disagreed.

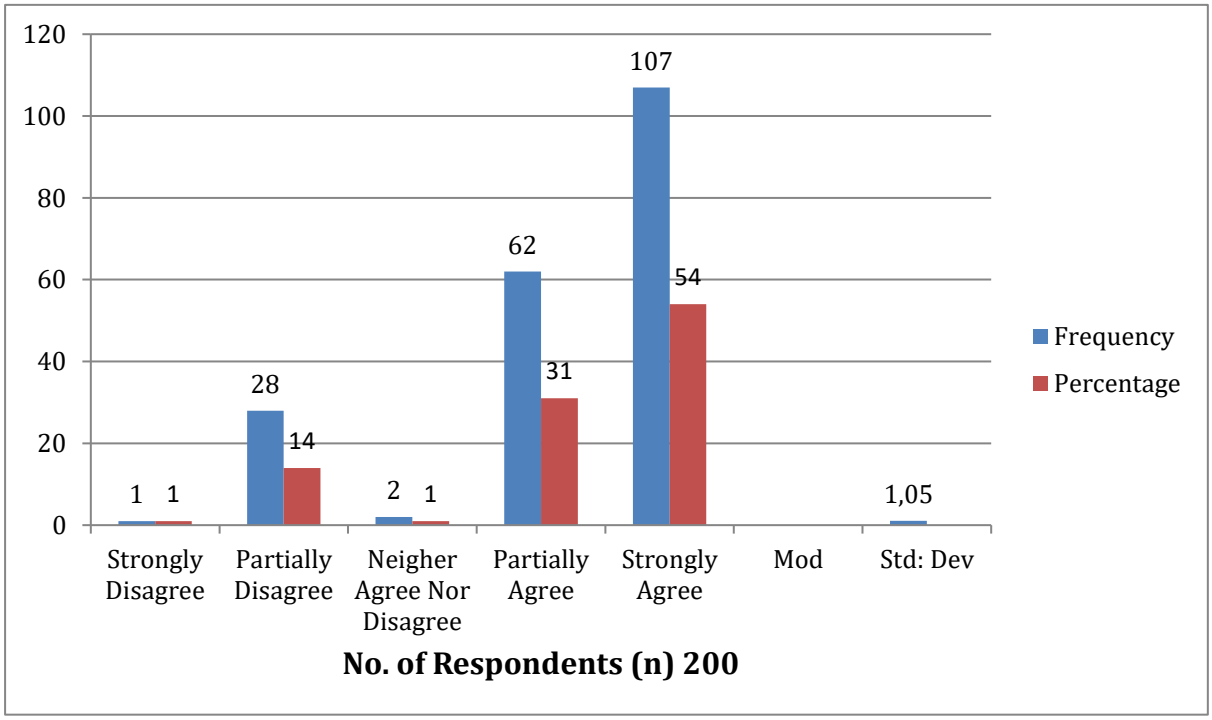
Table 4. Co-Curricular Activities Explore Hidden Potentials of Students

Class	N	Mean	Std. Dev:	T	df	Sig. (2-tailed)	Mean Diff.	Std. Err. Diff.
9th Class	100	4.28	1.036	.67	198	.502	.100	.149
10th Class	100	4.18	1.067					

Source: Self-Survey-2014-15

Table 4 reveals that estimated assessment of t was acquired to be 0.67 which is Statistically not imperative (P>0.05) as it is a smaller amount than the chart worth of t at 0.05 stage of reliance. Explanatory and inferential scrutiny reveals that both students of 9th (Mean=4.28, SD= 1.036) and 10th (Mean=4.16, SD=1.067) classes strongly agreed that Co-curricular activities explore hidden potentials of students.

Graph 2. Co-curricular activities explore hidden potentials of students



Source: Self-Survey-2014-15

DISCUSSION

The results shows that majority of students are agree that participating in sports and co-curricular activities increase academic performances of secondary schools students, enhance GPA rate and explore hidden potentials of the students. The results also shows that a very small number of students are disagree about benefits of sports and co-curricular activities. It is further added that those students who do not participate in sports and CCA are unaware about positive impacts of sports and CCA.

Zehner (2011) stated that kept students accept top GPAs and extra compliment hours than produce learner on the intact. 36.8% of all learners obtain both 15 or more credit and a 3.0 or elevated semester GPA. Active learners perform greater still when SAT score, didactic principal and other aspect are prohibited. In a research Ahmad (2011) has listed number of values of opportunities for children and their families to take part in curricular activities like educational value, psychological sports and cultural activities. Good schools have an values, development of social values, development of understanding of the child. Khan (2014) was

able to identify that schools accountable for Government of Pakistan education systems enable their performance depended on having people in schools students to promote their hidden talents and skills, with the knowledge, skill and judgment to make the facilitating them to play their effective roles in the improvements that would increase students' performance development of society. Education should infuse in them. In a research Khan (2014) further quoted Blase and Blase (1999) reported Importance and Benefits of Co-Curricular Activities: that highly effective principals were in classrooms.

In a study Bergen-Cico and Viscomi (2012) identified 60-item gadget and data from 88 government schools and 2,072 students. The research conclusion from this study contribute to the scope of the abovementioned research by Pascarella and Terenzini (2008) concerning the optimistic authority on student assignation. McDonald and Schultz (2016) were able to know that small or no data subsist concerning this correlation in the Catholic high school inhabitants. Additionally eighty five opint seven of Catholic high school graduates attend a four-year college but the research regarding ACCAP and its probable contact on learner learning is limited in this outlook.

CONCLUSION

Based on numerical examination and conclusion, it was come to light that sports and co-curricular activities play very important role to augment grade point average of students because they are interested in schools classes and they are also interested in there's study as in quize competitions students learn thousands of questions and answers.Those students who participated in sports and co curricular activities they have awarded sports certificates and easy for them to get admission in colleges or universities. Finally it was concluded that,

1. Schools are faced budget problems.
2. Most of heads of institutions are not interested in sports and co-curricular activities.
3. Most of teachers and parents consider these activities as wastage of time.
4. facilities are not available for students.
5. Stuents play on their own risk because proper security are not available for partekers.
6. Students need proper nutrition but unfortunately balance diet not available for them.
7. There is no media coverage for those activities in FATA.

Recommendation and Suggestions

In clarification of the winding up of our study the following commendation were made**:**

1. Proper budget may be specified for sports .
2. All educationists may sustain these activities .
3. Proper security may be provide for partakers.
4. Schools may convey just right time for such trial in their daily schedule.
5. Parents may be convinced to allow theirs children's to participate in co-curricular activities.
6. Proper nutrition may be bequeath for sportsman's.
7. Media may be prearranged full coverage for these activities in Ex-FATA.

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Comparasion of self-esteem and aggression between combative and non combative sports of Kashmir Division

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ABSTRACT

This survey type research aimed to check and compare the self-esteem aggressiveness between combative sports and non-combative sports of Jammu and Kashmir. For knowing the outcome of results A total of sixty 60 sports players, which constitute 30 Combative sport and 30 non-combative sport. The Subjects were selected by purposive sampling. The subjects were considered from the age group between 22-29 years. For the analysis of the self-esteem and aggresssive tendency of the subjects of both the groups I.e. combative sports and non-combative sports group. The Standard questionnaire meant for Self-Esteem by-Dr. Morris Rosenberg's Self-Esteem Scale it has 10 items and the standard questionnaire of aggression constructed by R. L. Bhardwaj scale, were used for data collection and to know the aggression level of individual and team game players of Kashmir University which contains 28 items. The analysis of data was done by using statistical technique 't'- test for finding the significance difference of self-esteem aggressive tendency between combative sports and non-combative sports and the level of significance was set at 0.05 levels ($p<0.05$). After the systematic collection, analysis and interpretation of collected data from all, it is concluded that in comparison between both groups Combative were found with high self-esteem and aggression as compared to non-combative sports players.

Keyword: Self-esteem; aggression; combative; non-combative

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INTRODUCTION

Makarowski reminds Thirer's classification of aggression: destructive aggression is combined with anger or hate; non-destructive aggression (yet still aggression) is identified with assertiveness (Makarowski 2013). In the latter case aggression has an instrumental character and its objective is to get the result (sports score) and not to harm the opponent (Klimczak, Podstawski, & Dobosz 2014). Krishnaveni and Shahin (2014) divide aggression that accompanies sport struggle into: direct, indirect, instrumental and emotional. Psychology is an educational and applied branch of science that involves the the scientific study of mental processes and behaviors. Specific nature of combat sports allows deliberate physical attacks against an opponent with coincidental refraining from illegal moves or those who offend against opponent's dignity.

Therefore moral and psychological development of people training combat sports is strongly emphasized. Due to controversial character of these types of sports people training combat sports need to be fully aware with regard to the threats of using the practiced techniques. The specific nature of sport task connected to combat sports regarding their characteristic or type can also have an impact on their level of

aggressiveness. According to the study contact sports fighters are more aggressive than contestants in non-contact sports (Kumar 2015); Baker, Whiting, and Van der Brug (1990) proved that sport activities can pacify aggression in sportspeople. Combat sports fighters are not necessarily aggressive, but they should present aggressive attitude for the sake of sport competition. Specific level of exhilaration is required to take a sport competition task. It is also important to control possible aggressive behavior, because excessive aggression can lead to ignoring fair play rules (Baker, Whiting, & Van der Brug 1990). The importance of controlling the level of aggression in sports was also presented in Krishnaveni and Shahin's paper (Krishnaveni & Shahin 2014). Baumeister and Boden as cited in Kubacka-Jasiecka (2006) stated however that people characterized by too high level of aggression can also show problems with self-control. Excessive self-control may in turn cause aggressive behavior, because in this case the tension caused by the self-control cannot be relieved regularly and may lead to specific reactions – usually aggressive ones. Although several studies were conducted in this field, the anticipatory cues, towhich athletes respond, are not clarified in many sports, neither in karate. An in- situ study with parallel motion capturing of two karate athletes (Petri et al., 2019a) and the following in-situ study with parallel video analysis of two athletes (Petri et al.,2019b), implied that the reduction of distance before the attack might be an anticipatorycue. In that studies, according to the method described above in (Petri et al.,2019b), Psychology also indicates to the use of such knowledge in various fields of human activity, including the daily life of individuals and the treatment of mental illness.

Sometimes, apart from applying the scientific method, it also depends on symbolic interpretation and critical analysis, although it is often less known than other social sciences such as sociology. Psychologists study phenomena such as perception, emotion, personality, behavior, and relationships. Some, especially deep psychologists, also study unconscious brains. Psychology differs from other social sciences in anthropology, economics, politics, and sociology, which explain the mental processes and behaviors of individuals. Psychology differs from biology and neuroscience in that it deals primarily with the interaction of mental processes and behaviors at the systemic level, as opposed to the study itself of biological or neurological processes. In contrast, the subfield of neuroscience studies real neural processes and how they relates to the mental effects arising individually. Biological psychology is the scientific study of the biological underpinnings of behaviour and mental state. Psychology does not necessarily refer to the brain or nervous system and is purely in the context of theoretical and information processing of the mind. Can be prepared. Increasingly, however, knowing of mental work is being incorporated into psychological theory and practice, particularly artificial intelligence.

RESEARCH METHODS

Source of Data

For the Present study the Subjects were selected from combative and non-combative sports players of Kashmir division.

Selection of Subjects

For the present study total 60 players were selected out of which 30 were combative and 30 non-combative players of Kashmir division all of them were selected by using sample random sampling method.

Questionnaires Used for Collection of Data

Two standard questionnaires were used for the collection of data related to aggression andself esteem of both the groups the standard questionnaire meant for self-esteem by- Dr. Morris Rosenberg's self-esteem scale it has 10 items and the standard questionnaire of aggression constructed by R. L. Bhardwaj scale, were used for data collection and to know the aggression level of individual and team game players of Kashmir University which contains 28 items. And the data was referred to norms given in questionnaires for further verification.

RESEARCH RESULT

The data is obtained from Sixty (60) slayers individually in total i.e. 30 from Combative sport and 30 non-combative sport and after that the obtained collected from questionnaires from all the players were separately analyzed through given norms and results were drawn by comparing the means of 30 Combative sport and 30 non combative sport and was again statistically analyzed by applying t-test to check the significant difference among selected variables. Therefore separate tables and graphs have been presented for each variable. Each table gives the average or mean of 30 Combative sport and 30 non-combative sport. Also the researcher found the standard deviation of 30 Combative sport and 30 non combative sport and also their mean difference is been given in the table. The level of significance for the present study is kept at 0.05 and also the degree of freedom is also be kept in mind for the calculation of tabulated 't' which is then compared with the calculated 't'. This is used for testing of hypothesis which was given by the researcher previously.

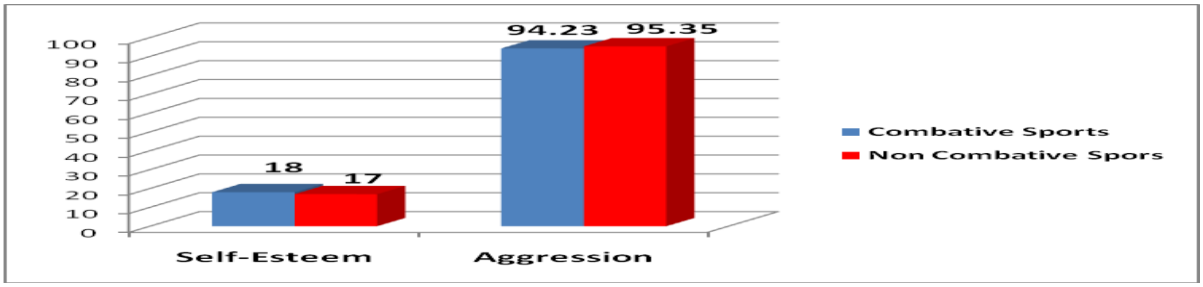
If the value of the calculated 't' is more than the tabulated 't' then the hypothesis of the researcher will be accepted and if the value of the calculated 't' is less than that of tabulated 't' then the hypothesis of the researcher will be rejected. Acceptance or rejection of hypothesis doesn't matter as it is not in control of researcher. The finding of this particular research is given below for both the variables

Table1. Comparison of Self Esteem between Combative Sport and Non-Combative Sport of Jammu and Kashmir

Group	Mean	S.D.	M.D.	S.E	D.F.	O.T.	T.T.
Combative Sport	18	3.05	1	0.833	58	2.30	2.00
Non-Combative Sport	17	3.10					

Table 2. Comparison of Aggression between Combative Sport and Non-Combative Sport of Jammu and Kashmir

Group	Mean	S.D.	M.D.	S.E	D.F.	O.T.	T.T.
Combative Sport	94.23	17.21	1.12	3.037	58	2.12	2.00
NonCombative Sport	95.35	16.48					



Graph1. Showing the Mean Difference of Self-Esteem and Aggression Between Combative and Non-Combative Sports Person of Kashmir division

DISCUSSION

It was presumed that there would be significant difference in the self esteem and agression between combative and non-combative sports players of Kashmir division the study was delimited to to the age group of 25 to 30 both combative and non-combative sports players. The main observation of the present study was done with accuracy with respect to research ethics and scientific principles the observation was there were two separate questionnaires for both the variables that were standard questionnaires with high validity and reliability after applying questionnaires on both the groups for both variables for comparison it was observed after evaluation of these questionnaires there was found significant differences in self esteem and agression between combative and non-combative sports players of Kashmir division All this has been shown below in research results. Imtiyaz et al., (2014) also conducted a study related to above said variables on different subjects for comparison and the result of the study had significant differences in both the variables. Lone and Dasgupta (2016) has conducted study on aggression self esteem among various groups for comparison and the study also shown significant differences in psysiological variables in various sports players.

CONCLUSION

From the graphical mean difference representationwe come to this conclusion that as far as self-esteem is taken into consideration, combative sports players are sociable, self-respectable and favorable, while as non-combative sport are despise, and disregard. After the systematic collection, analysis and interpretation of collected data from all, it is concluded that in comparison between both groups combative were found with high self-esteem and aggression as compared to non-combative sports players.

Keeping in view the limitations of the study and from the statistical techniques applied for analysis of the collected data it is concluded that there was found significant difference in self-esteem and aggression between physical between combative sport and noncombative sport of Jammu and Kashmir while applied 't' test. The researchers prior to this research preassumed that there would be a moderate or significant difference in self-esteem and agression between combative sport and non-combative sport of Jammu and Kashmir. After the statistical analysis interpretation of data it was found that there is significant difference. Because calculated 't' is greater than tabulated 't' at the level of significance 0.05, hence the hypothesis is accepted.

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Efektifitas guru pendidikan jasmani dalam pembelajaran daring

The effectiveness of physical education teachers in online learning

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ABSTRAK

Pelaksanan kebijakan pendidikan di masa pandemi Covid-19 menyebabkan kegiatan pembelajaran dilaksanakan secara jarak jauh melalui dalam jaringan atau daring. Menyikapi tantangan pandemi covid ini membuat guru dituntut mampu menggunakan teknologi untuk memudahkan proses pembelajaran daring dan mengubah mengajar seperi biasanya dengan media virtual. Tujuan penelitian ini yaitu untuk melihat efektifitas guru pendidikan jasmani dalam pembelajaran daring. Jenis dan pendekatan penelitian ini adalah deskriptif kualitatif, yang dilakukan di SMA Negeri 1 Semarang, SMA Negeri 11 Semarang, SMA Sedes Sapientiae, dan SMA Islam Sultan Agung 1 Semarang. Teknik pengumpulan data dilakukan dengan observasi, wawancara dengan guru-guru pendiidkan jasmani dan dokumentasi. Berdasarkan hasil penelitian, zoom dinilai paling efektif untuk melaksanakan pembelajaran daring. Pada kenyataanya pembelajaran daring menghambat terlaksananya beberapa materi dalam pembelajaran pendidikan jasmani karena tidak semua materi dapat diajarkan melalui pembelajaran daring. Faktor keberhasilan pembelajaran daring didorong oleh minat dan kemampuan siswa untuk terus belajar. Kendala dalam pembelajaran daring ini adalah jaringan atau koneksi, serta siswa dan guru merasa bosan dan jenuh jika harus berhadapan terus menerus dengan gadget ataupun leptop.

Kata Kunci: Guru; pendidikan jasmani; pembelajaran; daring

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ABSTRACT

The implementation of education policies during the Covid-19 pandemic caused learning activities to be carried out remotely through the network or online. Responding to the challenges of the COVID-19 pandemic, teachers are required to be able to use technology to facilitate the online learning process and change teaching as usual with virtual media. The purpose of this study is to see the effectiveness of physical education teachers in online learning. The type and approach of this research is descriptive qualitative, which was conducted at SMA Negeri 1 Semarang, SMA Negeri 11 Semarang, SMA Sedes Sapientiae, and SMA Islam Sultan Agung 1 Semarang. Data collection techniques were carried out by observation, interviews with physical education teachers and documentation. Based on the research results, zoom is considered the most effective for implementing online learning. In fact, online learning hinders the implementation of some materials in physical education learning because not all materials can be taught through online learning. The success factor of online learning is driven by the interest and ability of students to continue learning. The obstacle in this online learning is the network or connection, and students and teachers feel bored and bored if they have to deal with gadgets or laptops continuously.

Keywords: Teacher; physical education; learning; online

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PENDAHULUAN

Pada saat ini sistem pendidikan di dunia terganggu oleh adanya wabah Covid-19 (Setiyawan, Kresnapati, & Setiawan, 2020). Covid-19 merupakan penyakit yang diidentifikasikan penyebabnya adalah virus corona yang menyerang saluran pernapasan (Supriyadi & Dupri, 2020). Menularnya Covid-19 membuat dunia menjadi resah, termasuk di Indonesia (Telaumbanua, 2020).

Berdasarkan Surat Edaran No. 4 Tahun 2020 dari Menteri Pendidikan dan Kebudayan Republik Indonesia (2020) tentang pelaksanan kebijakan pendidikan dalam masa darurat penyebaran corona virus disease (COVID-19), Pemerintah memberlakukan kebijakan kegiatan belajar mengajar jarak jauh atau daring, yaitu dengan pembelajaran yang memanfaatkan teknologi multimedia, pesan suara, email, dan video streaming online. Berdasarkan edaran surat tersebut menyebabkan kegiatan pembelajaran dilakukan secara jarak jauh dengan media daring (dalam jaringan) yang menyebabkan kegiatan pembelajaran dilaksanakan secara jarak jauh melalui dalam jaringan atau daring. Hal tersebut dilakukan untuk meminimalisir penyebaran virus corona sehingga pemerintah memberlakukan kebijakan pembatasan kegiatan di luar rumah termasuk kegiatan pembelajaran. Pembelajaran jarak jauh bertujuan untuk memenuhi standar pendidikan dengan pemanfaatkan teknologi informasi dengan menggunakan perangkat komputer atau gadget yang saling terhubung antara siswa dengan guru maupun mahasiswa dengan dosen (Pakpahan, & Fitriani, 2020). Pembelajaran jarak jauh perlu diterapkan sebagai pengenalan penyebaran virus corona COVID-19 hingga dalam kondisi baik (Supriyadi & Dupri, 2020).

Pembelajaran daring tersebut diharapkan tidak menghambat sistem pendidikan Indonesia, karena semua kegiatan pembelajaran untuk saat ini dilaksanakan melalui virtual dan merubah kegiatan belajar mengajar seperti biasanya, baik pembelajaran teori ataupun praktik. Waluyo (2021) menuturkan bahwa hakikat pembelajaran PJOK yang syarat dengan gerakan fisik pembelajarannya dilakukan di ruang terbuka atau lapangan. Namun menyikapi tantangan pandemi covid membuat guru dituntut mampu menggunakan teknologi, untuk memudahkan proses pembelajaran dan mengubah kebiasaan pengajar seperti biasanya dengan media virtual, menurutnya guru PJOK harus memastikan proses pengajaran menggunakan Pembelajaran Jarak Jauh (PJJ) yang dilaksanakan dari rumah mampu untuk meningkatkan keterampilan motorik dan nilai-nilai fungsional yang mencakup aspek kognitif, afektif dan sosial. Beberapa aplikasi yang dapat dimanfaatkan untuk pembelajaran daring, antara lain: whatsapp, facebook, telegram, google classroom, dan google form (Hudah, Widiyatmoko, Pradipta, & Maliki, 2020). Namun pendidikan jarak jauh tersebut bertolak belakang dengan tujuan mata pelajaran PJOK yaitu memacu kepada pertumbuhan dan perkembangan jasmani, mental, emosional dan sosial (Riusman, 2021), dan pembelajaran jarak jauh ini menghambat pelaksanaan pembelajaran praktik pada mata pelajaran PJOK.

Waluyo (2021) juga menuturkan materi pembelajaran harus disusun ulang secara seksama agar pengalaman belajar PJOK dapat memuaskan kebutuhan perkembangan gerak lokomotor, non lokomotor dan manipulatif siswa. Padahal pada umumnya pembelajaran jasmani merupakan proses pendidikan atau pembelajaran yang mencakup kegiatan pembelajaran fisik dan praktek di lapangan guna melatih ketrampilan dan pengetahuan dalam berolahraga. Penjelasan di atas merupakan sebuah pernyataan jika pembelajaran daring ini belum berjalan dengan maksimal, dan memerlukan banyak evaluasi. Pendapat yang sama juga dijelaskan oleh Arizona, Abidin dan Rumansyah (2020) terlebih lagi akibat dari dampak pandemi corona yang melanda sehingga pembelajaran tidak berjalan maksimal karena harus tetap di rumah dan menerapkan *physical distancing*. Mantra (2020) menuturkan jika pembelajaran online ini tentu merupakan tantangan baru bagi guru yang membuat mereka harus menguasai media pembelajaran online untuk melangsungkan kegiatan pembelajaran dan diharapkan mampu berkreasi dalam proses pembelajaran supaya tujuan pembelajaran dapat dicapai secara maksimal

Atas dasar permasalahan di atas penerapan pembelajaran daring tidak selalu berjalan baik, banyak kendala yang dihadapi guru dalam melaksanakan pembelajaran dan orang tua berperan dalam mengawasi proses belajar anak di rumah, serta perkembangan teknologi yang membuat peserta didik gampang terpengaruh dengan media sosial. Namun dalam perkembangan teknologi yang semakin maju, membuat peserta didik lebih mudah untuk mengakses pengetahuan pembelajaran melalui internet. Dilihat dari kenyataan yang terjadi penyebaran covid-19 di Kota Semarang khususnya di wilayah Semarang Selatan yang bertepatan dengan RSUP Dr. Kariadi dimana sebagai tempat pusat penanganan pasien covid-19 maka diperlukan antisipasi dan kewaspadaan terhadap penyebaran covid-19. Dengan adanya kebijakan pemberintah yang memberlakukan pembelajaran jarak jauh dengan media daring menyebabkan efektivitas pembelajaran di luar kelas tidak dapat dilaksanakan, maka peneliti tertarik melakukan penelitian ini. Adupun tujuan penelitian ini yaitu untuk melihat efektifitas guru pendidikan jasmani dalam pembelajaran daring.

METODE

Jenis dan pendekatan penelitian ini adalah deskriptif kualitatif, penelitian deskriptif merupakan data yang terkumpul berbentuk kata-kata atau gambar, sehingga tidak menekan pada angka (Sugiyono, 2017). Didasarkan karena fenomena yang ada di lapangan mengenai efektifitas guru pendidikan jasmani olahraga dan kesehatan dalam pembelajaran daring mata pelajaran daring di SMA Negeri dan Swasta Semarang Selatan. *Setting* penelitian ini dilakukan di SMA Negeri 1 Semarang, SMA Negeri 11 Semarang, SMA Sedes Sapientiae Semarang, SMA Islam Sultan Agung 1 Semarang. Sumber data dalam penelitian yaitu data primer dan data sekunder, data primer diperoleh langsung peneliti pada saat observasi dan wawancara langsung di lapangan, sedangkan data sekunder diperoleh peneliti dari buku, jurnal. Foto dan dokumen lain. Teknik dan instrumen pengumpulan data dilakukan melalui observasi, dokumentasi dan wawancara. Sedangkan teknik analisis data dalam penelitian ini menggunakan reduksi data, pengumpulan data dan penarikan kesimpulan.

HASIL PENELITIAN

Berdasarkan hasil penelitian dan pembahasan mengenai efektivitas guru PJOK dalam menerapkan pembelajaran daring mata pelajaran pendidikan jasmani olahraga dan kesehatan di SMA Negeri dan Swasta Semarang Selatan yang diperoleh:

1. Pelaksanaan Pembelajaran Daring oleh Guru PJOK

Pelaksanaan pembelajaran daring selama pandemi ini cukup berjalan dengan lancar, pelajaran yang memerlukan teori tidak terkendala, dan dapat dilaksanakan oleh guru dan siswa, namun dalam pembelajaran praktik terdapat beberapa kendala, baik dalam jaringan internet, media ataupun faktor internal dalam diri siswa dan guru. Jenis media paling efektif dalam proses pembelajaran daring adalah *zoom*, dalam pembelajaran daring ini memerikan video praktik dan membuat video merupakan cara yang efektif, karena siswa dapat belajar dan mempraktikannya sendiri. Perkembangan pembelajaran PJOK secara daring sudah baik meskipun beberapa materi tidak dapat terlaksana, namun hal tersebut dapat dipahami guru sebab masaa pandemi ini. Dilihat dari hasil penelitian banyak siswa dan guru merasa jenuh dikarenakan terus berhadapan dengan gadget ataupun komputer dalam pelaksanaan kegiatan belajar mengajar dan tidak dapat praktik secara langsung di lapangan.

2. Faktor Keberhasilan Pembelajaran Daring

Perkembangan siswa dalam mengikuti pembelajaran daring baik, dilihat dari penilaian dan absensi siswa. Faktor yang mendorong minat belajar siswa dalam pembelajaran daring dipengaruhi oleh faktor internal dan eksternal, faktor internalnya adalah dukungan motivasi agar peserta didik tetap semangat dalam mengikuti pembelajaran daring, sedangkan faktor eksternal berupa dukungan dan penggunaan media pembelajaran yang menarik, inovatif dan kreatif. Penilaian pembelajaran yang guru lakukan dengan mengevaluasi hasil video praktik siswa dan tugas-tugas harian. Kelebihan pembelajaran daring diantaranya adalah guru dituntut untuk lebih kreatif dan inovatif, memberikan pembelajaran yang menarik dengan berbagai media, serta siswa dituntut untuk lebih aktif. Sarana dan prasarana yang paling efektif untuk menunjang pembelajaran adalah internet, koneksi/jaringan, kuota serta *handphone*/laptop. Kriteria perangkat yang baik meliputi perangkat yang disesuaikan dengan metode pembelajaran daring serta kebutubah serta kebutuhan dan sarana prasarana siswa.

3. Kendala Guru PJOK dalam Melaksanakan Pembelajaran Daring

Kendala pada saat kegiatan pembelajaran daring dapat dialami oleh guru maupun siswa, seperti bosan, jenuh, kekurangan sarana penunjang pembelajaran sampai kesulitan koneksi/jaringan. Olahraga yang sulit dan tidak dapat dilaksanakan pada pembelajaran daring adalah renang, olahraga beregu, olahraga yang memerlukan pengawasan gutu dan senam lantai. Faktor penyebab siswa kesulitan belajar secara daring faktor internal yaitu, siswa yang mulai bosan dan jenuh dengan pembelajaran daring, faktor eksternal berupa kesulitan koneksi/jaringan, minimnya pemahaman tentang media daring dan sarana penunjang pembelajaran. Ketika siswa mendapatkan kesulitan dalam pembelajaran, siswa dapat melihat atau *mereview* ulang video yang sudah guru berikan agar siswa dapat mempelajarinya kembali, atau bisa dengan menanyakan langsung kepada guru melalui komunikasi online ataupun menemunya langsung disekolah atas kesepakatan antara guru dan siswa tersebut.

PEMBAHASAN

Penelitian ini bertujuan untuk melihat efektifitas guru pendidikan jasmani dalam pembelajaran daring. Berdasarkan hasil wawancara, pelaksanaan pembelajaran daring selama pandemi ini cukup berjalan dengan lancar, pelajaran yang memerlukan teori tidak terkendala, dan dapat dilaksanakan oleh guru dan siswa, namun dalam pembelajaran praktik terdapat beberapa kendala, baik dalam jaringan internet, media ataupun faktor internal dalam diri siswa dan guru. Hal ini sesuai dengan hasil penelitian Supriyadi dan Dupri (2020) bahwa pada saat pembelajaran daring siswa tidak terlalu serius dalam memperhatikan materi yg disampaikan, siswa bermasalah dengan jaringan, quota internet, dan ada yang tidak memiliki handphone.

Pada perkembangan siswa dalam mengikuti pembelajaran daring baik, dilihat dari penilaian dan absensi siswa. Faktor yang mendorong minat belajar siswa dalam pembelajaran daring dipengaruhi oleh faktor internal dan eksternal, faktor internalnya adalah dukungan motivasi agar peserta didik tetap semangat dalam mengikuti pembelajaran daring, sedangkan faktor eksternal berupa dukungan dan penggunaan media pembelajaran yang menarik, inovatif dan kreatif. Hal ini sesuai dengan temuan penelitian Dewi dan Sepriadi (2021) bahwa minat siswa terhadap pembelajaran Pendidikan Jasmani Olahraga dan Kesehatan secara daring pada masa New Normal di sekolah termasuk ke dalam klasifikasi baik.

Dari hasil penelitian dan beberapa penelitian yang relevan, dapat disimpulkan bahwa pembelajaran pendidikan jasmani di masa pandemi ini dengan menggunakan sistem daring berjalan cukup baik jika hanya diberikan secara teori. Tetapi pada dalam pembelajaran praktek sistem daring ini tidak berjalan efektif. Hal ini dikarenakan pembelajaran pendidikan jasmani ini memerlukan unsur gerak seperti bermain sepakbola, bolavoli, bola basket, dan lainnya.

KESIMPULAN

Pelaksanaan pembelajaran daring dapat dilaksakan oleh guru dan siswa, meskipun terdapat kendala baik secara internal ataupun eksternal, namun prosesnya berjalan dengan cukup baik dengan mengkomunikasikan antara guru dan siswa jika terjadi miskomunikasi. Pemililihan media dan materi yang menarik agar peserta didik dapat menerima materi pembelajaran dengan mudah dan baik. secara umum faktor keberhasilan pembelajaran daring ini didorong oleh niat dan kemauan untuk melaksanakan pembelajaran daring dengan maksimal.

Berdasarkan penelitian ini peneliti memberikan saran sebagai berikut:

a. Kepada siswa, diharapkan dapat menjadikan penelitian ini sebagai motivasi dalam proses pembelajaran PJOK secara daring, menambah semangat agar melakukan praktek PJOK secara maksimal meskipun secara daring, serta lebih aktif dan lebih disiplin lagi dalam roses pembelajaran yang dilakukan melalui daring.
b. Kepada guru, diharapkan penelitian ini dapat menjadikan referensi dan evaluasi mengenai proses pembelajaran PJOK yang dilakukan secara daring di era pandemi sehingga dapat dilakukan perbaikan lagi untuk proses pembelajaran PJOK terutama pada kegiatan praktik.
c. Kepada peneliti lainnya, semoga karya ini bisa menambah pengetahuan, dan apabila melakukan penelitian yang sejenis sebaiknya subyek yang diambil lebih banyak agar data yang diperoleh lebih maksimal dan memberikan saran atau solusi untuk memaksimalkan efektivitas guru PJOK dalam menerapkan pembelajaran daring.

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Comparision of speed and endurance between short and long distance runner of Kashmir Division

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ABSTRACT

The main idea and aim of this comparative study is to assess and compare the speed and endurance among long distance and short distance athletes of Kashmir division. For this comparative study (60) subjects were selected, 30 athletes were long distance runner and 30 were short distance runner all were selected from Kashmir division city which were selected randomly from various disticte of Kashmir division for the study. The the statistical criteria used for selecting the subjects was through simple random sampling. All the athletes from both the categories were of the age ranged between 25-35 years. To compare and analyze the speed and endurance among long distance and short distance athletes of Kashmir division. Of the athletes of both the groups two different tests or equipments were used. For speed A digital Stop watch for recording the distance covered per unit time and for endurance Heart Rate count. Vo2max. Bench for Cardiovascular was used. The comparison analysis of data was done by using statistical technique 't'- test for finding the significance difference speed and endurance of long and short distance runner of Kashmir division the level of significance was set at 0.05 levels ($p<0.05$). The calculated means and standard deviation of speed and endurance of long distance distance athletes of Kashmir division selected variables of industrial inhabitants viz. speed(12.82 ± 1.07 endurance VO2 Max is (58.24 ± 7.25) and the findings means and standard deviation of selected variables of short distance atheletes of Kashmir division in speed (13.87± 2.93), endurance (448 ± 66.39), Hence the Non-industrial inhabitants were found with sound cardio respiratory capacities as compared to Industrial Inhabitants the difference might be due to the pollution of industries which directly or indirectly affects the population (people) residing in industrial area.

Keyword: Speed; endurance; short distance runner; long distance runner; stop watch resting heart rate; vo2max

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INTRODUCTION

Athletes generally display maximal or submaximal efforts and make 1-7 seconds of short sprints (Bradley et al., 2009). Speed is one of the most important motoric features for many sports branches. Therefore, it must be improved at early ages (Polat, 2009). Therefore, sports scientists have heavily focused on studying physical profiles of the players as well as their physiological profiles (Albay, Tutkun, Ağaoğlu, Canikli, & Albay, 2008). Workout capacity showing up through the use of anaerobic energy transfer systems of skeletal muscles during maximal and submaximal physical activity is defined as "anaerobic capacity". Anaerobic workout is a type of physical activity which means revealing explosive power, which is a workload over anaerobic threshold value and which manifests itself with fatigue. It is impossible to continue anaerobic activity for a long time (Yıldız, 2012). The anthropometric and physiological examinations contribute to the preference of the player and the training model to be applied as well as forming a foresight in the targeted success. Today, sportsmen should be faster, more skillful,

higher quality in terms of anthropometric and physiological capacities in all branches (Ersöz et al., 2016). Physical fitness can be a determinative factor in enhancing the performance and ability. Speed is the ability to perform a movement within a short period of time (Jullien, Bisch, Largouët, Manouvrier, Carling, & Amiard, 2008). Speed training is an important football related skill related component of physical fitness which enables a player to move from one point to another with faster response time. It has been shown that to improve speed each athlete needs to work on acceleration, starting ability, stride rate, speed endurance, and stride length (Sandford, Kilding, Ross, & Laursen, 2019). Athletics is an human competitive sports requiring physical skills, and training systems that prepare athletes for competitive performance. Athletic sports or competitions are competitions that are primarily based on human physical competition, which demand qualities of stamina, fitness and skill. Athletic sports form the bulk of popular sporting activities, including motorsports, precision sports, extreme sports and animal sports, among other major forms. Athletic competition, as one of the earliest types of sports, is prehistoric and includes an important part of the ancient Olympic Games, as well as equestrian events with the word "athletic" derived from the ancient Greek: (athlete) Which means "competition." Athletic sports were organized at the end of the 19th century limited to the top speed of the body in a limited time. It is used in many sports, which usually involve running, as a way to reach a goal or goal or to avoid or catch an opponent. Human physiology suggests that a runner's near-top speed may not be due to a decrease in the phosphocreatine stores in the muscle for more than 30–35 seconds, and perhaps more than a professional level at another level, Sprinters start the race considering the running conditions. Starting the block before moving forward and slowly moving into an upright position as the race moves forward and gains momentum. The position of the set varies depending on the start. The use of initial blocks allows the sprinter to perform an increased isometric preload; This creates a pre-tension to the muscle that is injected into the subsequent forward drive, making it more powerful. Physical alignment is of critical importance in producing optimal amounts of force. Ideally the athlete should start in a 4-point stance and drive forwards, stopping using both legs for maximum force production. Athletes remain in the same lane on the entire track in all sprinting events, with the sole exception of the 400 meters home. The race up to 100 meters largely focuses on accelerating an athlete's maximum speed. All sprints beyond this distance involve an element of rapid endurance.

Long distance running, or endurance running, a form of continuous running at a distance of at least 3 km physically, it is largely aerobic in nature and requires stamina as well as mental strength. In present human society, long distance running has many benefits People can engage in it for physical benefits, for body exercise, for recreation, as a means of travel, for economic reasons. Or for cultural reasons. Long distance running can also be used as a means to improve cardio health, it improves aerobic fitness by increasing the activity of enzymes and hormones that stimulate muscles and heart to work more efficiently Endurance is often a component of physical military training and has historically been so. Professional running is most commonly found in the field of sports, although in pre-industrial times foot messengers ran to give information about distant places. Distance running can also serve as a bonding exercise for family, friends colleagues, and has even been associated with nation building. The social element of distance has been associated with improved performance. The aim of this comparative study was to assess and compare speed and endurance between long-distance and short-distance athletes of the Kashmiri division.

RESEARCH METHODS

This type of research is an experimental study by comparing speed and endurance in long-distance and short-distance athletes in the Kashmir division. The subjects in this study were 60 athletes consisting of 30 long-distance runners and 30 short-distance runners from the Kashmir division. The subjects were chosen by using simple random sampling method. The age of the subjects ranged between 25-30 years. The various apparatus that were used for the collection of data were as under a digital Stop watch for recording distance covered per unit time during pulse rate count. Vo2max. Bench for cardiovascular endurance.

RESEARCH RESULT

The data is obtained from Sixty (60) subjects i.e. 30 short distance runner and 30 long distance runners. The data of each subject was recorded separately for both the variables referred for statistical analysis. All analyses were performed using Statistical software for comparison was (SPSS,) and Microsoft Excel (2007). All data is presented as mean ± SD unless otherwise stated. For all analysis the critical -level was set at 0.05 and also the degree of freedom is also be kept in mind for the calculation of tabulated 't' which is then compared with the calculated 't'. This is used for testing of hypothesis which was given by the researcher at the beginning.

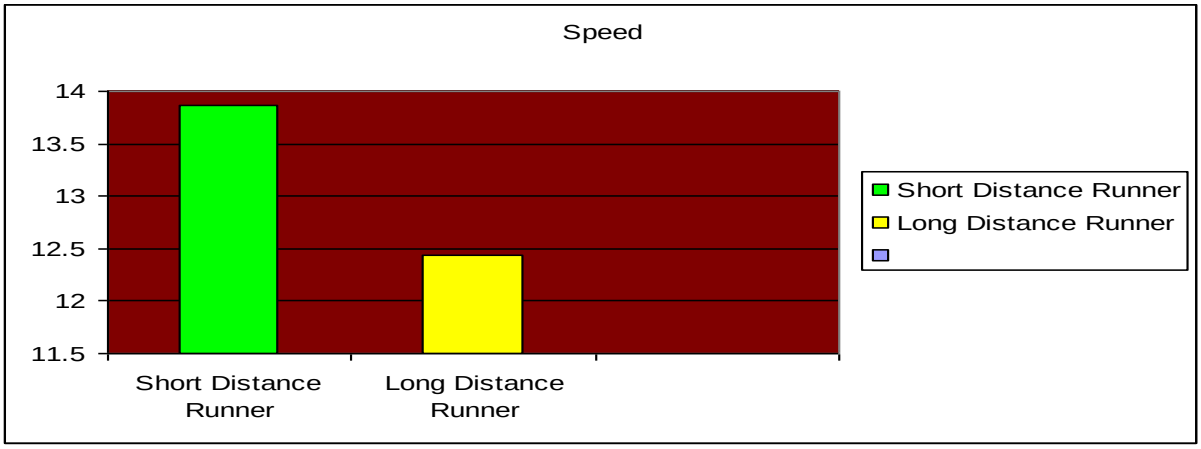
If the value of the calculated 't' is more than the tabulated 't' then the hypothesis of the researcher will be accepted and if the value of the calculated 't' is less than that of tabulated 't' then the hypothesis of the researcher will be rejected. Acceptance or rejection of hypothesis doesn't matter as it is not in control of researcher. The finding of this particular research is given below for both the variables

Table 1. Comparison of Speed Between Short and Long Distance Runners

Group	Average	S.D.	M.D.	D.F.	O.T.	T.T.
Short Distance Runner	13.86	2.96	1.43	58	2.3	2.00
Long Distance Runners	12.44	1.04				

***Level of Significance = 0.05**
Tabulated 't' 0.05 (48) = 2.00

Table-1 reveals that there is variance in means of speed per unit time between short distance and long distance runner group, because the mean of speed in short distance runner is 13.86, greater than long distance runner which is 12.44 and their mean difference is 1.43. To check the significant difference of speed between short and longdistance runner of Kashmir group the data was checked and analyzed by applying 't' test. Before applying 't' test, standard deviation is calculated between short and long distance runners is 2.96 and 1.04 respectively. After applying 't' test it was found that there is much variance in speed between short and long distance runner of Kashmir division because value of calculated 't' (2.3) which is greater than tabulated 't' (2.00) at 0.05 level of significance, which indicates or shows that there is a much variance in speed between short and long distance runner of Kashmir Division.



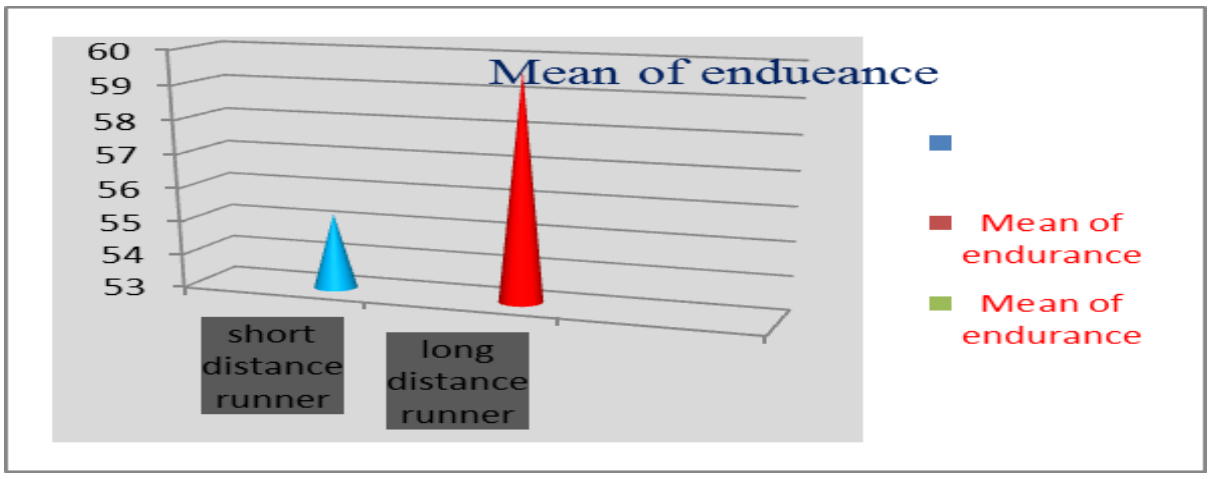
Graph 1. Graphical Representation of Mean variation of speed between short and Long Distance Runner of Kashmir Division

Table 2. Endurance Between Short Distance and Long Distance Runner of Kashmir Division

Group	AVERAGE	S.D.	M.D.	D.F.	O.T.	T.T.
Short Distance Runner	55.24	4.53	4.41	58	2.52	2.00
Long distance runner	59.65	7.05				

***Level of Significance = 0.05**
Tabulated 't' 0.05 (38) = 2.00

Table-4 reveals that there is variation in mean in means of endurance between short distance and longdistance runner group, because the mean of endurance in short distance runner is 59.65, greater than long distance runners which is 55.24 and their mean difference is 4.41. To check the significant difference of speed between short and long distance runner of Kashmir group the data was checked and analyzed by applying 't' test. Before applying 't' test, standard deviation is calculated between short and long distance runners is 4.53 and 7.05 respectively. After applying 't' test it was found that there is much variation in endurance between short and long distance runner of Kashmir division because value of calculated 't' (2.3) which is greater than tabulated 't' (2.00) at 0.05 level of significance, which indicates or shows that there is a much variation in endurance between short and long distance runner of Kashmir division.



Graph-2. Endurance Between Short Distance and Long Distance Runners of Kashmir division

DISCUSSION

It was presumed that there would be significant difference in the physical and physiological variables the study was delimited to speed and endurance between long distant runners and short distance runners the study was further delimited to short and long distance runners of Kashmir division. The main observation of the present study was done with accuracy with respect to research ethics and scientific principles the observation was short distance runners were found with good speed and long distance runners was found with good endurance capabilities. All this has been shown below in research results. Bhat (2014) also conducted a study related to above said variables on different subjects for comparison and the result of the study had significant differences in both the variables. Franchini, Del Vecchio, Matsushigue, and Artioli (2011) has conducted study on physiological variables among various groups for comparison and the study also shown significant differences in physiological variables in various sports players.

CONCLUSION

Based on statistical analysis, it can be concluded that there is a significant difference in the speed of short distance runners and long distance runners, short distance runners are faster than long distance runners in the Kashmir division as long distance runner endurance is found to be much better than short distance runners. From result of this survey type of study we come to this conclusion that short distance were better in speed and not good in endurance and long distance were better in endurance but not good in speed, the reason behind it might be the training load.

Although the researcher followed the ethics of the study with cautiousness but still some limitations were there which were not under control of researcher. There was not control on the prevailing environmental conditions. The food and other habits were not in the control of researcher. The family background and weather conditions were not in control of researcher.

In the light of results obtained and conclusions drawn, the following recommendations are made for future investigations and for practical applications:

1. It is strongly recommended to verify and check out the speed of different game players in where speed plays vital role.
2. It is recommended for long distance runners to gear up for endurance training for better performance.

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Penerapan media *my gymnastict* terhadap hasil belajar kognitif materi roll belakang

The application of my gymnastics media to the cognitive learning outcomes of back roll material

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ABSTRAK

Penelitian ini bertujuan untuk melihat penerapan media *my gymnastict* terhadap hasil belajar kognitif materi roll belakang. Penelitian ini menggunakn metode penelitian kuantitatif dengan menggunakan pendekatan experimen, populasi dalam penelitian ini adalah siswa kelas XI SMA Negeri 2 Rembang, teknik pengambilan sampel menggunakan random sampling. Analisis data menggunakan uji normalitas, uji homogenitas, uji t (uji banding). Berdasarkan hasil penelitian dan pembahasan diperoleh hasil penerapan media *my gymnastic*t terdapat perbedaan hasil belajar kognitif materi roll belakang siswa kelas XI SMA Negeri 2 Rembang kelas kontrol dengan kelas eksperimen. Maka dapat dikatakan terdapat pengaruh penerapan media *my gymnastic*t terhadap hasil belajar kognitif materi roll belakang siswa kelas XI SMA Negeri 2 Rembang.

Kata Kunci: Media; *my gymnastic*t; roll belakang

ABSTRACT

This study aims to see the application of my gymnastics media to the cognitive learning outcomes of back roll material. This study uses quantitative research methods using an experimental approach, the population in this study is class XI students of SMA Negeri 2 Rembang, the sampling technique used is random sampling. Data analysis used normality test, homogeneity test, t test (comparative test). Based on the results of the research and discussion, the results of the application of my gymnastics media showed that there were differences in the cognitive learning outcomes of the back roll material for class XI students of SMA Negeri 2 Rembang in the control class and the experimental class. So it can be said that there is an effect of the application of my gymnastics media on the cognitive learning outcomes of the back roll material of class XI students of SMA Negeri 2 Rembang.

Keyword: Media; my gymnastict; roll back

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PENDAHULUAN

Pendidikan adalah suatu usaha untuk mewujudkan aktivitas belajar dan mengembangkan setiap potensi yang ada dari peserta didik agar memiliki keterampilan untuk dirinya maupun untuk masyarakat (Atsani, 2021). Pendidikan yang dapat mengembangkan setiap potensi siswa agar memiliki keterampilan yaitu pendidikan jasmani (Atsani, 2021). Pendidikan jasmani adalah salah satu mata pelajaran yang ada di setiap sekolah (Hasrion, Sari, & Gazali, 2020). Melalui pendidikan jasmani inilah diharapkan siswa mampu memperoleh pengalaman dalam hal sikap, pemikiran yang sportif, jujur, saling berbagi, disiplin maupun tanggung jawab (Wiarto, 2015).

Sementara itu, dari pengalaman mengajar Pendidikan Jasmani Olahraga dan Kesehatan pada waktu magang banyak siswa yang kurang menyukai materi senam lantai hal ini yang berdampak pada hasil rata-rata nilai siswa masih di bawah KKM 75. Hal itu disebabkan karena mayoritas siswa tidak menguasai materi senam lantai roll depan dan roll belakang. Selain mereka tidak bisa, kebanyakan dari siswa-siswa tersebut belum mengetahui langsung pergerakan yang benar dalam senam roll depan dan roll belakang. Hal ini juga didukung dari hasil wawancara yang dilakukan dengan guru PJOK dan siswa kelas XI IPS SMA Negeri 2 Rembang pada tanggal 15 April 2019 diperoleh informasi kurangnya media penunjang yang mampu mempermudah siswa dalam pembelajaran pendidikan jasmani olahraga dan kesehatan, siswa merasa kesulitan pada materi pendidikan jasmani olahraga dan kesehatan khususnya materi praktik yang diberikan di hari yang sama dan siswa belum mempunyai gambaran mengenai materi yang akan dilakukan pada hari tersebut.

Tabel 1. Data Siswa KKM dalam Pembelajaran PJOK

No	Keterangan	Kelompok Eksperimen	Kelompok Kontrol
1	Siswa Lulus KKM	15	13
2	Siswa Belum KKM	17	19
	Jumlah	32	**32**

Salah satu media yang dapat menghadirkan pembelajaran yang menarik yaitu media *my gymnastic*. Media *my gymnastic* merupakan "*smart mobile devices allow the collecting, organizing, storing and presenting of information*" (Titting, Hidayah, & Pramono, 2016), yaitu perangkat ponsel pintar dapat membantu pengumpulan, pengorganisasian, menyimpan dan menyajikan informasi. Dengan begitu *smartphone* bukan hanya untuk komunikasi saja, di dalamnya bisa digunakan untuk kamera, permainan (*games*), media sosial, media pembelajaran dalam dunia pendidikan. Pendidikan dan teknologi harus berkembang sejalan untuk memenuhi tantangan perkembangan zaman pada saat ini.

Hal ini disebabkan karena terjadinya evolusi kebutuhan dari tingkat kebutuhan yang kompleks ke kebutuhan yang instan, sehingga diperlukan sebuah inovasi-inovasi baru untuk mengkemas pendidikan yang modern. Seperti halnya penjelasan dari Nurdyansyah dan Aini (2017) yang menerangkan bahwa, pemanfaatan teknologi komunikasi untuk kegiatan pendidikan, teknologi pendidikan serta media pendidikan perlu dalam rangka kegiatan belajar mengajar. Hasil penelitian secara nyata membuktikan bahwa penggunaan alat bantu sangat membantu aktivitas proses belajar mengajar, terutama peningkatan prestasi belajar siswa (Wulandari, Susilo, & Kuswandi, 2017). Penelitian ini bertujuan untuk melihat penerapan media *my gymnastict* terhadap hasil belajar kognitif materi roll belakang pada siswa kelas XI SMA Negeri 2 Rembang. Penelitian ini sangat penting dilakukan, karena dengan menerapkan media *my gymnastict* diharapkan akan dapat meningkatkan hasil belajar kognitif siswa.

METODE PENELITIAN

Penelitian ini menggunakan penelitian kuantitatif. Penelitian kuantitatif adalah proses menemukan pengetahuan yang menggunakan data berupa angka sebagai alat menemukan keterangan mengenai apa yang ingin diketahui (Arikunto, 2013). Alasan digunakannya pendekatan kuantitatif adalah ingin memberi gambaran yang jelas mengenai penerapan media *my gymnastict* terhadap hasil belajar kognitif materi *roll* belakang siswa kelas XI SMA Negeri 2 Rembang. Populasi penelitian ini adalah siswa kelas X SMA Negeri 2 Rembang tahun ajaran 2019/2020 yang berjumlah 210 siswa yang

terbagi menjadi 7 kelas. Sampel dalam penelitian diperoleh kelas XI MIPA 6 sebagai kelas kontrol dengan jumlah 32 siswa dan kelas XI MIPA 1 dengan jumlah 32 siswa sebagai kelas eksperimen. Untuk menganalisis data diperlakuakan suatu cara atau metode. Adapun uji persyaratan analisis validitas, reliabilitas, uji normalitas data, uji homogenitas data, uji hipotesis.

HASIL PENELITIAN

Penelitian dilaksanakan pada tanggal 26 Agustus 2020 di SMA Negeri 2 Rembang. Ada dua sampel yang digunakan pada penelitian ini yaitu kelas eksperimen dan kelas kontrol. Kelas eksperimen dilaksanakan pada kelas XI MIPA 1 dengan jumlah siswa sebanyak 32 menggunakan media *my gymnastict* dan kelas kontrol yaitu kelas XI MIPA 6 dengan jumlah siswa sebanyak 32 tidak menggunakan media *my gymnastict*. Peneliti melakukan tes yang berbentuk tugas mengisi soal pilihan ganda dan soal uraian. Hasil belajar kedua kelas dianalisis untuk mengetahui tepat atau tidak penerapan media *my gymnastict* terhadap hasil belajar kognitif materi *roll* belakang siswa kelas XI SMA Negeri 2 Rembang.

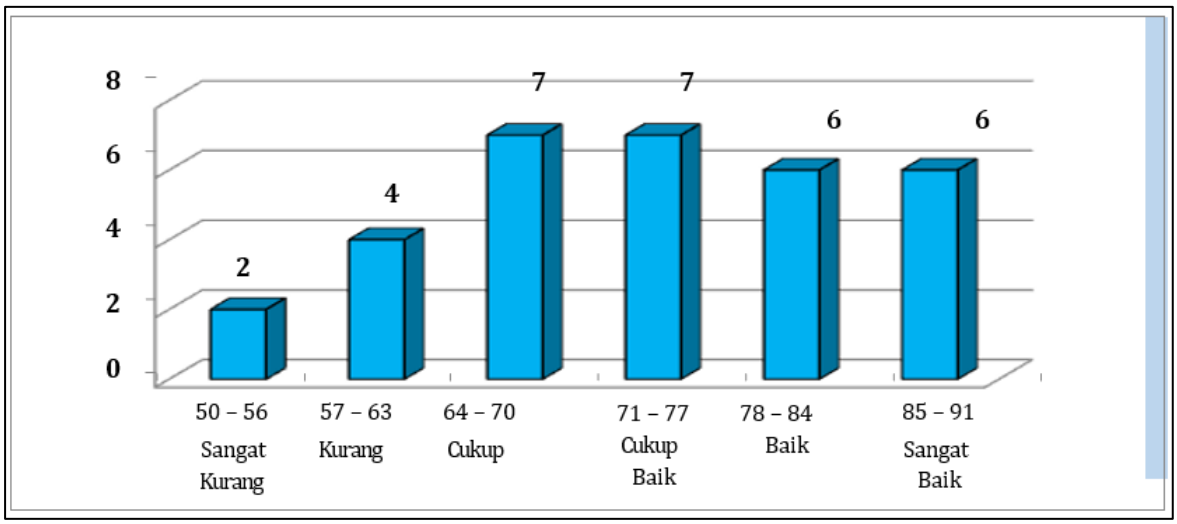

Diagram 1. Hasil Belajar Kognitif Materi *Roll* Belakang Kelas Kontrol

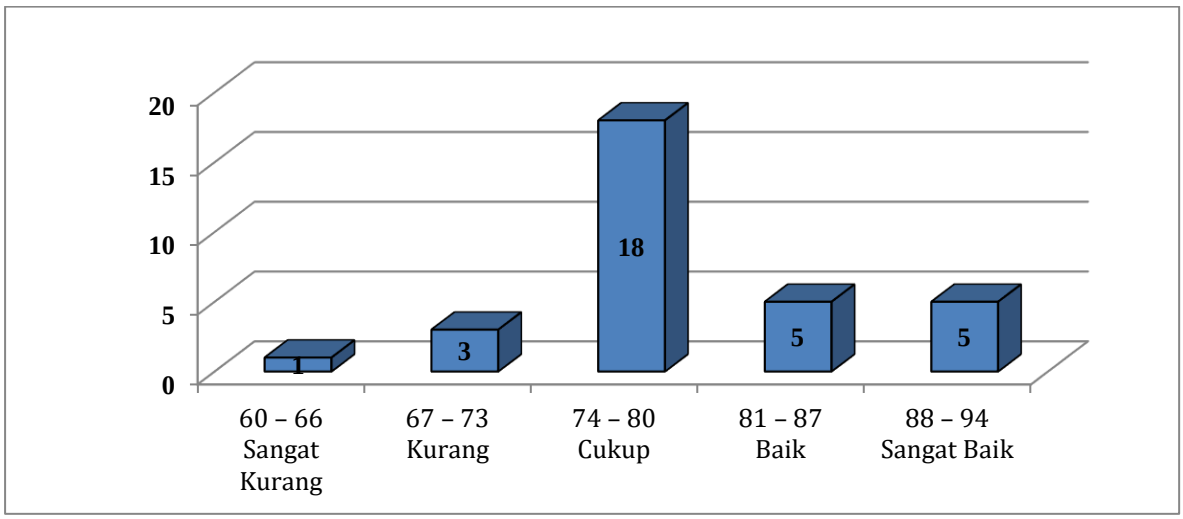

Diagram 2. Hasil Belajar Kognitif Materi *Roll* Belakang Kelas Eksperimen

PEMBAHASAN

Penelitian yang dilakukan di SMA Negeri 2 Rembang, sampel yang digunakan dalam penelitian adalah sebanyak 64 siswa, XI MIPA 6 sebagai kelas kontrol dengan jumlah 32 siswa dan kelas XI MIPA 1 dengan jumlah 32 siswa sebagai kelas eksperimen dengan menerapkan media *my gymnastict*. Adapun pengambilan sampel dilakukan dengan teknik *random sampling*. Pengumpulan data dalam penelitian ini yakni tes dan non tes.

Setelah melakukan penelitian, diperoleh data hasil belajar antara kelas eksperimen dan kelas kontrol rata-rata, frekuensi, dan persentase pemerolehan nilai. Kelas kontrol diperoleh nilai tertinggi 90, nilai terendah 55, dan nilai rata-rata 78,13. Data penilaian hasil belajar kognitif materi *roll* belakang siswa kelas XI SMA Negeri 2 Rembang kelas eksperimen diperoleh nilai tertinggi 95, nilai terendah 60, dan nilai rata-rata 80,47. Selanjutnya untuk menguji kenormalan data tersebut maka dilakukan uji normalitas pada kelas kontrol dan kelas eksperimen. Perhitungan uji normalitas diperoleh hasil. Maka dari kedua kelas tersebut dapat dikatakan Hα diterima dan berdistribusi normal.

Lebih lanjut untuk mengetahui bahwa kedua kelas memiliki sifat homogen maka diuji dengan uji homogenitas. Hasil uji homogenitas diperoleh $f_{hitung} < f_{tabel}$ yaitu 1,38<3,48. Maka dapat dikatakan bahwa kedua kelas yaitu kelas kontrol dan kelas eksperimen memiliki varians yang sama maka disimpulkan kedua kelas bersifat homogen.

Berdasarkan hasil pengujian hipotesis yang telah dilakukan sebelumnya menyatakan bahwa terdapat pengaruh penerapan media *my gymnastict* terhadap hasil belajar kognitif materi *roll* belakang siswa kelas XI SMA Negeri 2 Rembang. Sehingga jika media *my gymnastict* ini terus diberikan setiap pembelajaran senam lantai *roll* belakang maka semakin baik juga nilai siswa yang mencapai ketuntasan dalam pembelajaran. Media *my gymnastict* sangat besar pengaruhnya, karena dengan memberikan media *my gymnastict* siswa akan sangat antusias dalam mengikuti pembelajaran. Semua mata pelajaran membutuhkan media pembelajaran yang menarik simpatik siswa untuk antusias mengikuti pembelajaran, khususnya mata pelajaran PJOK melalui kegiatan bermain memberikan siswa untuk terlibat langsung dalam pembelajaran sehingga menumbuhkan pembelajaran yang bermakna. Hal ini sama halnya dengan yang dikemukakan oleh Rahayu, Pratiwi dan Mahardhika (2018); Ainiyah (2015); Samhudi (2021) yang menyatakan bahwa semua mata pelajaran membutuhkan media pembelajaran untuk menunjang proses pembelajaran. Salah satunya adalah Pendidikan Jasmani Olahraga dan Kesehatan (PJOK). Pendidikan jasmani adalah sangat penting, yang memberikan kesempatan kepada siswa untuk terlibat langsung dalam aneka pengalaman belajar melalui aktivitas jasmani, bermain dan olahraga yang dilakukan secara sistematis.

Didukung dengan hasil angket keseluruhan siswa menyatakan bisa dan senang dalam penerapan media *my gymnastict* pada materi *roll* belakang. Sementara pada hasil observasi, pembelajaran materi *roll* belakang siswa kelas kontrol cenderung pasif dan siswa kurang bersemangat untuk mengikuti kegiatan pembelajaran, hal ini terjadi karena tidak adanya variasi media pembelajaran dalam pembelajaran materi *roll* belakang. Sementara itu pada kelas eksperimen yang proses pembelajarannya menggunakan media *my gymnastict*, siswa lebih aktif dan antusias dalam mengikuti pembelajaran materi *roll* belakang. Hal ini dapat disimpulkan bahwa terdapat pengaruh penerapan media *my gymnastict* terhadap hasil belajar kognitif materi *roll* belakang siswa kelas XI SMA Negeri 2 Rembang.

Berdasarkan hasil penelitian tersebut, beberapa penelitian yang relevan mendukung temuan ini yaitu, Murtaqi, Mubin, dan Setiawan (2018) menyatakan terjadinya peningkatan dalam proses belajar gerak meroda siswa melalui media bantu bola

gymnastic. Selanjutnya Titting, Hidayah, dan Pramono (2016) menyatakan bahwa pembelajaran senam lantai berbasis android efektif digunakan sebagai proses pembelajaran Pendidikan Jasmani, Olahraga, dan Kesehatan (PJOK). Akan tetapi penggunaan aplikasi ini tidak begitu cocok untuk sekolah di daerah-daerah tertentu. Daerah pedesaan atau daerah yang masyarakat umumnya masih terbilang kurang mampu. Keadaan seperti ini mengurungkan niat siswa atau masyarakat untuk memiliki smartphone, karena harga smartphone yang tidak dapat dijangkau (Titting, Hidayah, & Pramono, 2016).

KESIMPULAN

Hasil penelitian menunjukkan bahwa terdapat pengaruh penerapan media *my gymnastict* terhadap hasil belajar kognitif materi *roll* belakang siswa kelas XI SMA Negeri 2 Rembang. Hal ini terlihat pada hasil perhitungan uji t sebesar 4,37 yang ternyata lebih besar dari harga t_{tabel} dengan taraf signifikan 5% sebesar 1,67 dan 1% sebesar 2,39. Dengan demikian Hα diterima, maka dapat disimpulkan bahwa terdapat pengaruh penerapan media *my gymnastict* terhadap hasil belajar kognitif materi *roll* belakang siswa kelas XI SMA Negeri 2 Rembang. Keterbatasan dalam penelitian ini yaitu, peneliti hanya melakukan penelitian di kelas XI SMA Negeri 2 Rembang, dan banyak hambatan-hambatan yang dirasakan pada saat melakukan penelitian di masa pandemi COVID-19 ini. Rekomendasi bagi peneliti selenjutnya untuk dapat mengkaji lebih luas mengenai media *my gymnastict* dan melakukan penelitian pada sampel yang lebih luas.

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