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Effects of Track & Field Training During Physical Education Class on Learning Mathematics

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ABSTRACT

Background: The aim of this study was to Effects of track & field training during physical education class on learning mathematics **Objective:** In order to document the evolution of the fundamental goals of education, display decimal numbers [Chapter II] to measure length and angle, [Chapter III] collecting and displaying data, [Chapter VI] and axes Coordinates [Chapter VIII] Book Six basic math to show practical cooperation with relevant teacher Hours of trained physical education. To analyze the data SPSS₂₂ software was used. **Results:** The results showed that the average scores of students in practical topics discussed above relative to students who were trained to learn the topics discussed in class were significantly increased [$p < 0.05$]. **Conclusion:** The results obtained suggest that teachers by six in collaboration with physical education teachers during practical exercises to teach concepts basic math courses combined together in order to deal with students' motivation and joy in the process improve learning and using this new mode of their own teaching.

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INTRODUCTION

Without a doubt, one of the concerns of human history, been learning. All human achievements are the product of learning. Learning is one of the most important issues in psychology today, and yet one of the most difficult concepts to define. Behaviorist learning approach to the concept of sustainable change in potential behavior occurs as a result of reinforced practice [10].

Main point of each teaching is the connection between people's daily actions and the things they learn. However, this impression is wrong to say that all newly acquired skills to become functional. Just learning to be effective and create change. On the other learn the position will be placed on that person. Thus, the results of which led to an increased ability to learn, reflect the nature, diversity and range of information that they need people to work [15].

After assessment, curriculum goals are set. All the activities and curriculum design process can be performed in light of the goals. Usually curriculum goals are seemingly impressive volt supply which is time-consuming and somewhat complicated, in fact, needs, deficiencies and gaps show and they are going to meet to be determined. It can be said that the aim of education should be done carefully, do not meet the educational requirements [13].

Academic life, one of the most important aspects of life, people who influence many other aspects of life. One of the basic problems of each country's education and training system, the problem of academic failure and low academic performance of students in the country [19]. This phenomenon, in addition to huge economic losses, mental health is undermined learners. For the fall, declining academic performance of the learner curriculum is satisfactory to unsatisfactory levels. Various factors affect the academic performance of their professional education into four categories: individual factors, school factors, family factors and social factors have split [20].

The philosophy of modern education, Dewey saw the school as a place to practice living for tomorrow, no space and no independent personality and create such a context, a more concrete educational content to students is essential [16].

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Many students are faced with major math learning disabilities problems in the field of learning mathematics. Problems related to learning mathematics, in some children begins from an early age, but often shows up in his primary school and secondary school period continues [11].

Under the Education Act defines disability, learning disability or disorder in a basic psychological process that involves understanding the language or its application. This disorder as a disability in listening, thinking, speaking, reading, writing, spelling or math shows. But does not include learning problems that are primarily the result of visual disabilities, hearing or mobility, mental retardation, emotional disturbance, poor environmental conditions, cultural or economic [9].

Fasen stated that to fill the gap between conceptual understanding of the early years of primary school children and the mathematical symbols using tangible and concrete objects are given little opportunity to children. In his view, the symbols + and - cannot be taught to children by suppose. It is only through practice cannot understand the symbols [6].

Siraj Khorrani et scholarly impact of cognitive training on academic performance secondary school students in math conclude that cognitive training in improving the academic performance of boys and girls middle school math students, on the other hand, is effective data revealed The lack of influence of gender on the academic performance of secondary school students in math [17].

Khoshbakht & Khayyer in an article examining patterns in students' motivation to learn mathematics Early found that kind of external motivation to learn mathematics effectively, as well as behaviors mother and teacher skills universality of mathematics influenced indirectly. Teacher motivation can lead to the incorporation of lessons and games to learn [12].

Khedami *et al* in a study titled effectiveness of executive function, to improve academic performance students with math learning disabilities math pointed to the performance of executive functions school students with learning disabilities is effective [11].

Abedi & Aghababaei found in a study that working memory training can reduce the problems of children with disability in mathematics. Also to raise the level of academic performance-related components, such as verbal working memory, visual and spatial use of shapes, letters and numbers improve [1].

Aminifar *et al* found that the rate commensurate with each student's learning depends on easier to visualize the dynamics of mathematical forms and multiple representations of mathematical topics are they [5].

One of the factors that in the learning process and thus affect the status of mathematics education in elementary school, teaching methods and learning this lesson. Today, the growth rate of per second increases, therefore, teaching methods affected the development of technology, as well as changing tastes, needs and expectations of students' changes. So today, a teacher should teach students ways to learn and experience rather than the transmission of information and the relationship between you and them. New methods and new, so we must be on the foundation [2].

One of the factors that in the learning process and the resulting impact on the state of mathematics education in elementary school leaves, methods of teaching and learning this lesson. The growth rate of per second increases, therefore, teaching methods influenced the development of technology, as well as changing tastes, needs and expectations of students' changes. So today, a teacher should teach students ways to learn and experience rather than the transmission of information and the relationship between you and them. New methods and new, so we must be on the foundation [8].

Training methods need to be applied to the elementary school students are able to necessary to understand them on their own. According to the survey, it can be said that a strong dependency between the processes of learning and teaching methods are But it is precisely cannot be identified to learn is the mathematics. Because learning is a science teacher can own methods for teaching mathematics in primary school to take a job. This method should be devised so that we can plan and by their internal resources to nurture the growing child. In other words, the mathematics in this period should be used in ways that enhance the students' mental math skills, develops the idea in their minds and thus create active learning [18].

In addition to teaching math in elementary school, teaching math concepts and everyday computing needs, fostering students' intellectual abilities and Regulation of internal memory. So on no account should a student to memorize and understand math accept the rules of this event. To achieve the desired result, the book and the way it should be to teach students to learn the material in your activity stream and discover the rules and lead to a degree appropriate to think about what has taken place in the surrounding solution. Furthermore, the fundamental role of mathematics in the development of science and technology is accepted by everyone, and now learning of science and mathematics education in the technical fortunately attitudes toward public education, especially primary education has changed. School students to become mathematicians, math do not read, but to enjoy life, learn it. So living in the future that require scientific knowledge and technological prepare.

Approach to mathematics education, especially in elementary school must be accompanied by bringing the student to the discovery, preparing her or him for researching, adapt her or him to logical thinking, encourage inquiry and curiosity and make a creative mind and since modern applications of mathematics, the science

curriculum framework [number and geometry] exceeding the above mentioned skills to be serious and informative examples of the application of mathematics and then combining them to teach students [3].

Depression and hostility and increasing self-confidence, self-esteem, positive self-concept, the freshness and vitality of the students. The social dimension of physical education to promote social relationships, responsibility, leadership, teamwork, hope for the future and hope for their lives and develop skills in performing physical activities in order to understand the concepts of space, place, power, orientation Kennedy, and the direct impact [4].

At least three methods can be combined to build a sports game. In Type I and II, only one subject [the mathematics, science, language skills, social studies, art], the physical education [physical activity, with the subject as sports games, motor skills] combined. But on third concepts of a subject can be combined with the concepts of physical education. The difference is only in the first and second transposition issue. In other words, the first type of training on the subject, but the concepts are incorporated into physical education. But in the second issue of the concepts of physical education curriculum on education and other topics to be helped.

Many people were afraid, and fear of the elementary school math. Mostly math multiplication and physically and dismay learned and are never unanswered the question of why math they seem to be really something heavy giant and why? perhaps one reason for this is the affective domain in teaching math is very weak and unsatisfactory runs smoothly this important lessons without the use of training aids and other reasons that he and many other reasons, the while mathematics is one of the most basic, from basic to specialized courses.

Modern methods of teaching mathematics in society neglect and reluctance to relinquish their traditional math only math and weekly hours were limited. But in modern style, with all the courses can be mathematically combined and applied to. Interest in school programs, skills related to teamwork, sense of self-esteem, emotional maturity, social skills, feel accepted by the group, sense of belonging with other students and teachers, realistic view of themselves, interpersonal attraction, interest in others as well as access to various areas of learning goals in physical education using cooperative learning in physical education more accessible for the combining of teaching math concepts through games and sports can be along the dimensions discussed above, this effect is compounded.

Considering the above mentioned issues and the importance of education and methods of teaching and learning as well document under section seven of chapter six fundamental transformation of the education system to expand and deepen the culture research and evaluation, creativity and innovation, scientific theorizing and documenting the experiences of indigenous education in the formal education system in general [strategic objective 1, 2, 4 and 8], 3-17 solution to modify and update teaching methods education with an emphasis on the active, collaborative, creative teachers according to the model, the researchers sought to this study examines the impact of training topics for Physical Education and athletics in the incorporation of basic mathematics in sixth grade pay.

Methodology:

Some of the concepts in the form of games, and articles Athletics [National Physical Plan by vi], such as the length and angle of the shot put [third season] and converted to floating-point values [Chapter II] and combining it with collect and display data in the Statistics and Probability [Chapter VI] and the coordinate axes [Chapter VIII] on learning performance of a pre-test and post-test was used. In this research, two groups were used and both groups were measured again, the first measurement run a test consisting of 15 questions selected by Thames tenth question exams in math and science in elementary school [1992] before the variable measurement by a post-test and the second test again 15 selected questions from the tests.

In order to form groups, the researchers used a convenience sampling method in class learning play through hours of physical training and group training classes assessed only responses ten test questions [in both stages] into three separate parts [understanding, implementation and control] to arbitration and resolution for each of the two scores was taken to scale in three different parts of the number 25 carried out. Edited intended to ensure non-interference in the judicial process, without a clear answer sheets the student's name [the leaves of the bottom leaves] and with the help of fellow researcher involved in the discussions on training responses were analyzed according to a test of all the scores in the various sections of 15 questions each step of the test collect as perceived, performance or controlled for each subject were considered.

After identifying the problem, turn to the implementation of teaching through play and exercise during physical education were divided into three stages.

Teaching concepts through games and sports activities are summarized in the compilation of the books of the ten session's health and physical education teacher of the sixth grade [1992] and Basic Math VI [1991] is.

Session 1: The express purpose of learning and the role of measurement in physical education lessons and math.

Session 2: Express Generalities about the Javelin Missile launch students and segmentation along the way.

Session 3: Sample training plan over the launch of each student is measured by his physical education teacher and the by m.

Session 4: Practice examples and training program for floating-point conversions during the trajectory, after the presentation of proposals and various locations throughout the state and converted into decimal integers that can be played, taught there. Students also about doing the right skills and the angle of the javelin throw to increase mileage Tips provided.

Session 5: Education throwing weights, and combining it with length and angle measurement issues and converting decimal numbers correct.

Session 6: Practice earlier and expressed Athletics articles that can measure the length of that, like the long jump, triple jump, pole vault, high jump and pole vault height at a time chapter concepts of coordinate axes are pointed out.

Session 7: Education triple jump and combine it with the length measurement, and probability and statistics.

Session 8: Review exercise training session before the match and adding, to teach students the excitement is binding, so that the form of the question to total points achieved by students in competition in sports activities and summarize the concepts of size and convert it to decimal and ..., nodule cards trying to receive the award.

Session 9: learning concepts taught in class by students.

Session 10: Final practice and prepare for the test and fix bugs occurred.

For analyzing data they used Regression Test and SPSS₂₂ software.

Results:

Sixth grade students who are satisfied with sports and games have been trained through the integration of students with only difference is the theory of learned material. To test this hypothesis, the t-tests to test no significant difference was used to determine the average population of the combined effect of blended learning performance of students by sixth-effect or not?

To examine the hypothesis that sixth grade students who integrated teaching mathematical concepts students learned the theoretical training is different. The difference scores T-test to compare independent variables were measured before and after the beta test. The change any of the variables in the two groups [experimental and control] of 95 patients in each group presented it was.

Table 1: The effect of integration on academic performance and student learning by sixth.

Index Variable	Counts	Pretest Average	Pretest SD	After the test Average	After the test SD	Difference
Experiment	30	77.68	5.13	84.95	3.94	7.27
Control	30	76.75	4.14	78.17	3.34	1.42

The data in Table 1 show that the experimental group [who were trained fusion] compared with the control group demonstrated significant improvements.

Table 2: shows the effect of integration on academic performance by students in the sixth.

The purpose of the test	t	Df	Sig
Effect of combining academic performance of students View decimal numbers [Chapter I]	135.45	58	0.001
Effect of combining academic performance of students Measure the length and angle [Chapter II]	162.12	58	0.001
Effect of combining academic performance of students Collect and display data [Chapter III]	85.15	58	0.001
Effect of combining academic performance of students Coordinate [Chapter IV]	98.36	58	0.001
Effect of combining academic performance of students The total test [Chapter V]	246.296	58	0.001

Discussion and conclusion:

Research issues in environmental education is essential in the education system and education. education as a major institution in the field of education within the community, overseeing a major role there. Many school activities are not meaningful because students not only because they do not know, but they are not aware of the purpose and usefulness. Sometimes, existing knowledge can terms of understanding the way information is represented. While most of these cases occur in learning mathematics, but it can be used in all areas of academic subjects. Because of that, our understanding of the world physical and social history of theorizing about the numbers and more. Because a deep understanding, education is particularly meaningful, hence the separate topics such as science, math, writing, religion, Persian and most importantly, the education and training of physical education concepts through games and sports with passion happiness in children are put together. Constructivist curriculum classes generally, the nature are consolidated. This class gives students the opportunity to continue thinking through the probe to reach the views are great. It is believed that the totality enough TOPICS views to integrate different levels of participation.

Backward repeatedly called ourselves, but we've never tried to take a step toward addressing this problem because we think we are better. Unwillingness to teach students and teachers complain about students as getting bad grades and the teachers teach them how to complain. Most parents think that this is the responsibility of they are out in the end, all the responsibility in the process of taking some of the errors, they flinch.

Education in general and schools in particular segments of the community organizations that serve and all members of society to give way under her. Today, due to the continual development and extensive changes and new innovations in different fields, especially education, the need for training continuous and essential skills is something very important. The school also must be appropriate and effective in its role to play.

So we come to the conclusion that the causes of poor math education in elementary school dedicated to a specific group not mean we cannot just teachers or curriculum designers or students with their parents due to the weakness of knowing in mathematical education but also contribute to any kind of problem in the least because of weakness this course is designed for students of mathematics, but the cause of defects and occasionally off the Sector these factors have created problems in the teaching of mathematics in many cases cut cause or issue that makes everything perfect, imagining all the weaknesses and problems of the problem is not intellectual or even attempt to answer it is not diagnosed until after a creativity and learning new ways of teaching and courses combining theory and practice of teaching process learning undoubtedly improve.

REFERENCES

- [1] Abedi, A., S. Aghababaei, 2011. Reviewing Memory Training on improving the academic performance of children with mathematics learning disabilities. *Journal of Clinical Psychology*, 4(8):73-81.
- [2] Aghazadeh, M., 2008. Teaching's new ways. Aeej publication.
- [3] Azmon, J., 2014. Health and physical education teacher book. Office of monitoring the publication and distribution of educational materials.
- [4] Asadian, A., 2013. Mixing sports games. <http://yekdel.parsiblog.com>.
- [5] Aminifar, E., B. Saleh Sedghpour, F. Vaynejad Torkamani, 2012. Role of technology in learning mathematics. *Journal of Technology Education*. 5(4): 265-272.
- [6] Bromse, D., 2014. Teaching Mathematics to Kids. Tehran, emissions growth, 13.
- [7] Davoudi, K., 2013. Sixth Grade's Mathematics. General office printing and distribution of textbooks.
- [8] Davoudvand, A., 2013. Experiences of Mixing Mathematics and Other Courses. Management Education Tiran & Kron city.
- [9] Golpour, F., M.M. Mir-Nasab, E. Fatahi-Azar, 2011. Self-monitoring training regarding the performance of students in fourth grade math problem solving math disability. *Journal of Applied Psychology*, 3(15): 41-54.
- [10] Hergenhahn, B.R., N.M.H. Olso, 1997. An introduction to Theories of Learning, [4th^{ed}], New York: prentice-Hall. *Journal of Educational Technology*, 38(6): 962-976.
- [11] Khodami, N., A. Abedi, H. Atashpour, 2011. Effects of Active process on teaching mathematics in students with disability in learning mathematics. *New findings in psychology*, 5(17): 63-77.
- [12] Khoshbakht, F., M. Khayyer, 2011. Reviewing Teaching Pattern in Students. *Journal of Psychology* 23:67-81.
- [13] Melki, H., 2012. Introduction to Teaching Planning. Samt Publication, 84.
- [14] Mehr-Mohammadi, M., A.H. Nafisi, 2005. Combining Information Technology and Communication and Teaching Document. Research and educational planning Organization.
- [15] Mirnia, S.T., 2015. Effects of Internet on Teaching Process. Educational Research Master's thesis, Islamic Azad University Sari Unit.
- [16] Raeispour, A.A., 2013. Effects of Telling Tales and Writing Stories on Teaching. 20th Conference of the Mathematics Education of Iran, Semnan.
- [17] Seraj Khorrami, N., M. Boroumand Nasab, E. Yeganeh Doust, 2011. Effects of Teaching on Mathematics Learning. Research projects. Islamic Azad University, Dezfol Branch,
- [18] Teaching Basic Revolution Document, 2013. Ministry of Education of the Islamic Republic of Iran
- [19] Zaharakar, K., 2008. Relationship between emotional intelligence and academic performance of students of Islamic Azad University. *Journal of Applied Psychology*, 5: 89-98.
- [20] Zaharakar, K., 2009. Related to various aspects of family functioning and academic performance of high school students in Lorestan province. Collection of research papers. Institute of Education Lorestan province, 178-204.