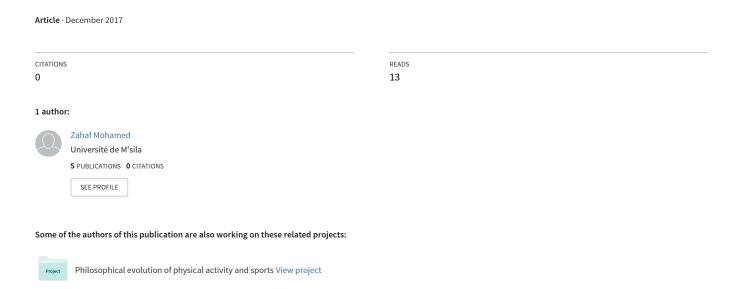
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# Research on Reasons for Female Golfers Retiring from Golf in Japan

**Tetsuro Kita, Yoichi Tachi**<sup>1</sup>Musashino Art University & <sup>2</sup>Tokyo Kasei University, Japan

#### **Abstract**

In this research, the surveys were implemented for those women who had retired from golf. The subjects of this survey were 400 females at least 45 years old who used to play golf on the course once a year or more but have not been playing golf in these five years. As a result of the survey, about 40% of those who had retired from golf replied, "I want to play golf again." (This ratio is a total of the subjects who replied, "I want to play again." and "I would rather play again.")Such ratio was higher than that for the male subjects obtained in the precedent survey and indicated that the returning to golf of a group of female golfers who retired from golf will make a considerable impact on the golf market.

**Keywords**: Female golfers, Reason for retirement

#### INTRODUCTION

According to the White Paper on Leisure (Japan Productivity Center), the golfer population in Japan (those who play golf at a golf course) was said to be about 14.80 million at the peak period in 1992, but it declined to about 7.90 million in 20 years (2012) and around 7.20 million in 2014<sup>1</sup>. It has been reported that the golfer population decreased by about 7 million in around 20 years. This is because golf courses in Japan went bankrupt one after another mainly due to the trade of their membership rights after the collapse of the bubble economy and many golf courses were forced to go out of business and/or change their management. Consequently, Japanese golf market has been shrinking about over 20 years.

In October 2003 which was about 10 years after the peak of the golfer population, the government took an action in order to prevent a fall of the whole golf industry. As a survey entrusted by the Ministry of Economy, Trade and Industry, "Action Plan Review Committee for Revitalization of Golf Market" was launched and this review committee later submitted a report. "Report by Action Plan Review Committee for Revitalization of Golf Market" published by this review committee <sup>2)</sup> made proposals and presented specific measures for the purpose of exploring the markets including of middle-aged groups (in their 30's and 40's), female groups and junior groups as well as inviting them to the golf market in the situation where the golfer population had been decreasing and ageing.

Thanks to this report, the movement to enhance horizontal cooperation in the golf industry in which a strong sectionalism by business category had been traditionally seen was increasing being considered and "Golf Market Activity Committee" (abbreviated as GMAC) was established in 2004. Currently, six bodies (Japan Golf Association, Nippon Golf Keieisha Kyokai (NGK), Japan Public Golf Society (PGS), Japan Golf Goods Association (JGGA), Japan

Golf Range Association (JGRA) and Japan Golf Journalist Association (JGJA)) and key figures belong to GMAC where the measures for revitalizing the golf market are being discussed <sup>3)</sup>.

With the expansion of activities by GMAC, the golf industry started to operate without being so particular about its conventional business style such as the membership system and the provision of lunch after nine holes. More specifically, so-called "Golf Course Regeneration Business" should be mentioned which attracted lots of attention with a shift to a golf course management style where services satisfying customer needs are emphasized to increase the number of visitors. For example, services meeting customer needs and building of a system in which people can enjoy golf besides playing it on the course started to be carried out such as the reduction in green fees, twosome and threesome, the improvement in subsidiary facilities or other related efforts. These efforts have been made mainly by foreign funds that had just newly entered into Japanese golf industry then. Pacific Golf Management, Accordia Golf and Ripple wood Holding can be found among such major foreign corporations at that time. A typical business strategy of these foreign corporations was to provide the services of 90% of acquired golf courses with an inexpensive fee comparable to that for public golf courses in America. 4)5)6)7)8)

However, the latest 2016 White Paper on Leisure 9) has reported that the golfer population as of 2015 was about 7.60 million, around the half of that at the peak period. This indicates a current situation that various proposals delivered and efforts made over these several years by the government and the industry have not been successful. As stated above, not a few measures focusing on discovering potential golfers have been taken so far in order to restore the golfer population, but few approaches have been made toward a group of retirees (those whore tired from golf). For this reason, there have been no clear data available regarding "Reason for Retiring from Golf" and many unanswered question left. In this context, with focusing on those who retired from golf, we conducted the following examinations in order to compile a proposal for their returning to golf examinations on reasons for their turning away from golf (golf retirement); and examinations with the aim of formulating a hypothesis contributing to the seeking of disincentives for them to play golf and of a possibility of their returning to golf from the perspective of "Why did golfers turn their back to golf courses?"

The subjects of this survey were 400 males at least 45 years old who used to play golf on the course once a year or more but have not been playing golf in these five years. As a result of the survey, about 30% of those who had retired from golf replied, "I want to play golf again." (This ratio is a total of the subjects who replied, "I want to play again." and "I would rather play again.") Although such ratio appears to be low, assuming that about 30% of those retiring from golf at the peak period (around seven million people) think, "I want to play golf again.", it can be concluded that the returning to golf of a group of those who retired from golf will make a very substantial impact on the golf market.

In this research, the same surveys were implemented for those women who had retired from golf.

#### **SURVEY METHOD**

#### Survey Subject

Those who used to play golf on the course once a year or more but have not been playing golf in these five years (400 females at least 45 years old)

#### Survey Method

Internet surveyswere carried out by an outsourcing survey company.

#### Survey Period

From September 11, 2015 to September 15, 2015

#### RESULTS

### 1) What caused those female golfers who have retired from golf to start playing golf in the first place?

A group of females at least 45 years of age who used to play golf on the course once a year or more but have not been playing golf in these five years were asked about their cause for starting to play golf. The most common answer was "I was invited." (60.3%). By generation, a segment of people in their early 60's (60-64) was the largest (76.3%). The second most common answer was "Playing golf was popular then." (24.8%).

Comparing the survey results for female subjects with that for male subjects, while the second most frequently answered reason for the females was "Playing golf was popular then.", that for the males were "For business reasons (hospitality for business partners, etc.)" and "Company events" (34.5%), showing a survey result that here was a difference between the males and the females with regard to the causes for their starting play golf.

#### 2) Reasons for Retiring from Golf

The subjects were presented possible reasons for their retiring from golf and requested to evaluate each of such possible reasons on a scale of one to five according to the degree it applies to them. The top ten reasons are listed below in terms of the total number of "applicable" and "rather applicable" given to them. The most frequently given reason for retiring from golf was "Green fees are expensive." (58.3%), followed by "Golf gears cost much." (50.0%); "My friends retired from golf." (40.3%); "Golf courses are far away from my house." (38.3%); "My income decreased." (35.3%); "My game didn't get improved." (32.3%); "Personal reasons such as nursing care" (22.5%); "I got busy at work." (21.5%); "I don't have a friend whose game is at the same level as mine." (19.8%); "I got fewer company golf tournaments." (17.0%); "I had fewer chances of entertaining clients with golf." (16.3%); "I don't want to spend a whole day just playing golf." (16.3%); "I don't feel comfortable spending a day with others." (15.0%); "I had a health problem." (15.0%); "I had more things costing me money." (13.3%); "I had other hobbies." (10.8%); "I don't want to be bothered by golf rules and manners." (10.5%); and "others" (15.3%). The specific reasons for "others" included "I got married." and "I got busy with childcare."

#### 3) Do you want to play golf on the course again?

The subjects were asked, "Do you want to play golf on the course again?" and they responded, "I do again." (17.3%) and "I would rather do again." (20.3%), which meant that 37.6% of them thought, "I want to play golf again."

Comparing the survey results with those for male subjects, 12.3% of male subjects replied, "I do again." (12.3%) and "I would rather do again." (17.0%), the 29.3% in total being fewer than that for female subjects, which suggested that female subjects are more motivated to "play golf on the course".

According to the age groups which replied, "I want to play golf again.", the age group from 45 to 49 was the highest being 43.2%, followed by that from 50 to 54 (42.6%), from 55 to 59 (34.2%), from 60 to 64 (31.6%), from 65 to 69 (25.0%) and 70 or above (15.8%).

#### DISCUSSION AND SUMMARY

"Golf" returned to Olympics as an official event for the first time in 112 years at 2016 Rio de Janeiro Olympic Games. However, the golfer population in Japan has been continuing to slow down. Under a circumstance where the golfer population kept going downhill, the golf industry had been carrying out marketing activities with putting much importance on the development of potential golfers. While a White Paper on Leisure reported that the golfer population had been decreasing by about seven million from the peak period, there have been no clear data available with regard to the "Reasons for Retiring from Golf" and many unanswered question left. In addition, not many approaches have been made toward a group of retirees.

This research implemented a survey targeting at 400 female golfers at age 45 or older who "used to play golf on the course once a year or more but have not been playing golf in these five years". Consequently, around 40% of those who had retired from golf replied, "I want to play golf again." (This ratio is a total of the subjects who replied, "I want to play again." and "I would rather play again.") Such ratio was higher than that for the male subjects obtained in the precedent survey and indicated that the returning to golf of a group of female golfers who retired from golf will make a considerable impact on the golf market.

It is believed that as well as "the measures for exploring potential golfers" represented by "Golmagi!)" (Recruit Holdings) and "Rakugol" (Rakuten, Inc.) which have been proactively working on the development of the golfer population in recent years, the efforts to be made by the golf industry under the slogan of "Golf Again!" with "the measures for regaining golfers who retired from golf" in mind will become crucial as a particular solution for the golfer population problem<sup>9)</sup>.

The author points out the possibility that the golfer population problem will become more serious around between 2018 and 2023 (the 18-23 problem)<sup>10)</sup>. It is considered that the first thing to do for the revitalization of the golf market is to strive to make golf a true "lifelong sport" by creating an environment where even those over 70 years old with a small health problem can continue to play golf (the issues of cart restricted areas, slow play, older adults -friendly course condition, etc.).

Today, the prices of golf club memberships and green fees have been decreasing and the second hand markets for golf gears developing. It would be needed to engage in PR activities that erase a stereotyped image of golf as "Golf costs much money." in accordance with the findings of this survey and to prepare lesson methods and information which can be easily understood by those who are going to start playing golf and beginners who aim to improve their game.

Further proposals will be made regarding what are necessary for the restoration of the golfer population while, with the use of interview and questionnaire surveys, continuing to explore the mentality of golfers who retired from golf and closely examining and restructuring the hypothetic model presented in this research.

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### The Technological Competence of the Algerian Teachers of **Sport in the Sector of Secondary Education**

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#### **Abstract**

The aim of this study is to identify the technological competence of the researchers of sports in the Algerian context. For the sake of conducting this study, a questionnaire was directed to a random sample of 42 male and female teachers from different high schools. The results showed that the above sample lacked the appropriate technological competence and there were many obstacles in high schools to use or to implement the use of ICT's due to their unavailability. From the previously mentioned results, it is recommended that there must be a reconsideration of the use of the ICT's that this study suggested.

#### INTRODUCTION

Teaching is a noble mission due to the fact that it has had a tremendous impact on the citizens. Through the interaction with his student, a teacher has many messages to transmit to his students, therefore; these messages can influence the students' minds and personalities and can open new horizons for them. And in today's world, it is a necessity to be capable of adapting these students with the modern surroundings and helping them develop in a complete and a balanced way possible. Thus, this balance cannot be achieved by relying on knowledge only, but also on how to generate and apply this knowledge and how to solve problems effectively and efficiently. "So it is a must for teachers to have a solid knowledge in his specialty as well as knowledge about life and living so that he can interact with his students and assist them in grasping the existing correlations between the different scientific domains." (Zakia, 2007: 11) The role of the teacher of sport is equally important as the teachers of other modules due to the fact that he has many roles to do as he is the teacher, the friend, the brother, the coach, and the educator of his students. The nature of these roles is the result of the ability of the teacher to continue his teaching outside the school setting and build bridges with his students during competitions, in stadia, and in gyms. These roles are of a paramount importance especially at the level of secondary education because the students are in a very delicate phase, which is adolescence in which teenagers are full aspirations and ambitions, but they are also in a confused state. Therefore, it is the responsibility and the role of the teacher to act as a specialist who can discover talents and direct his students to the domain in which they can excel. He can also assist them in shaping a well-balanced personality that can overcome social obstacles and get away from outlaw behaviours as a person who is powerful enough to make students listen and take his advice into consideration. (Mervet, 2008:151)

The important role of the teacher of sport attracted attention as a field of study that is crucial in addressing and developing all the students' personality dimensions. This field started to be a field of interest for researchers through the different programmes of teacher training and it was known as an education that is based on competences in the late sixties and the early seventies. (Arnold, 1980)

So due to the fact that the technological competences are of a paramount importance in equipping the teachers with the appropriate assets to teach effectively and raise the level of the students' performance and achievement, it is meant to highlight the importance of identifying the technological competence and o give them the opportunity to know the nature of the technological competence as a new method that can be used in the domain of physical education.

#### The problem

Methods of teaching are crucial in advancing the processes of teaching and learning. Thus the technological competence is an important component in the context of physical education in order to keep up with the technological changes that are taking place all around the world. Besides, there is an urgent need to get rid of the old methods of teaching that some teachers still use today as their teaching routine though it is no longer the case to use them nowadays. Throw (1988) stated that the teacher needs to take a role that transcends his traditional role in which he equips his students with the ability to use the technological devices properly and be selective in doing so. Bare and Meek (1998) indicated that there are many obstacles to the effective use of ICT's like: the lack of the infrastructures such as computers, laboratories, and repair and teachers' beliefs about the effectiveness of such methods.

Though it is acknowledged that this method is effective, it is not yet implemented in the Algerian schools because it is not a part of the program of teacher training in this context. This fact led to investigate this field in which traditional methods still dominate. Golbhrogwen (2008) conducted a study about the use of ICT's in schools and how they can influence the achievement of students. Results indicated that though the teachers were ready to use this material as a part of

their teaching, they faced problems in getting them because of the lack of the teacher trainers, the lack of knowledge in technology, the lack of training and teachers' self-development and teachers' belief about the use of ICT's in their teaching. (Boukratem, 9-10 of October, 2012)

From the above context, the following problematic was formulated:

-What are the necessary technological competences that the teachers of physical education should develop in the level of secondary education?

From the above problematic, the following research questions were put forward:

-what is the level of the physical education teachers' possession of the technological competences?

-what are the obstacles for using the technological competences at the level of high schools?

General hypothesis:

The teachers of physical education possess the appropriate technological competences.

The hypotheses:

The teachers of physical education do not possess a high level of technological competences.

There are many obstacles for the use of ICT's at the level of high schools.

#### The objectives of the study

-The identification of the technological competences that the teachers of physical education should possess.

The identification of the level of the technological competences of the teachers of physical education.

The identification of the obstacles for using technological competences.

#### The study terminology

#### **Competence:**

According to Carter, a competence is set of skills, concepts and dimensions that are related to a given act. It requires the ability of a person to master its basis and to perform it.

**Technological competences:** are a set of skills and dimensions that a teacher possesses and is able to perform in order to design, execute and evaluate the process of teaching to make it more effective.

**The teacher of physical education:** is the intermediary between the student and the curriculum and he is the booster of the different physical activities and an educator at the same time.

#### The review of literature

Elhadib (2001) conducted a study to identify the difficulties of using ICT's in relation to other variables in the Faculty of Damascus. 150 students and 4 mentors took part in this study. The results indicated that there was a lack in laboratories and teacher trainers. The study recommended that mentors should undertake training before starting their work.

Andraws (2003) investigated the roles that were attributed to teachers at university in the age of teaching methods and the extent of their knowledge and application of these methods. 50 teachers took part in the study and they were from public universities across the province of Irbid. The results showed that the teachers knew about leadership techniques, however, they lacked the skills of lesson design and the creation of curricula and teaching methods that are appropriate for the teaching context. In addition, the results showed that the most prevailed role of teachers was guiding and supervising students and the researcher recommended that there was an urgent need to train teachers on the methods of teaching prior and during teaching.

Schefler and Logan(1999) did a study to identify the technological competences that the teachers needed. The study consisted of 437 members at the level of secondary education and the faculties of teacher training and they administered 67 questions about technological competence. The study showed that all the competences got averages that ranged from very important to average and using the technological competences got the highest scores and the social competences got the lowest scores.

Kamp (2000) conducted a study that aimed at knowing the level of the teachers and the students' perception of the level of their technological competence. The study used a questionnaire that consisted of three dimensions: the level of using teaching methods, the identification of the deficiencies of designing curricula and some open ended questions about making the decision to insert these technological competences in the programmes of teacher training and their teaching later on by the educational authorities. The results showed that the teachers used the teaching methods but they could not acquired them during the teacher training session during university studies. The only skills that they acquired were the manipulation of the key board and Microsoft word. It also showed the lack of the teacher training programmes updating when it comes to dealing with keeping up with modern technology.

#### **METHOD**

#### The research method

This research is based on descriptive research that describes the events that are related the the studied case or situation. (Rachouane, 2003: 66)

#### The sample of the study

The sample of the study consists of 112 male and female teachers of physical education chosen at random. They are teachers at the level of secondary education in the town of Tlemcen i the academic year of 2015/2016

The study was piloted by distributing 45 questionnaires and rejecting one questionnaire because the answers were not full. Thus, the number of the teachers was reduced into 42 teachers.

#### The research tools:

#### The questionnaire

The nature of the research method is descriptive, so the appropriate method is using a questionnaire.

The aim of the questionnaire

- -The identification of the technological competences that the teachers of physical education should possess.
- -The identification of the level of the technological competences of the teachers of physical education.
- -The identification of the obstacles for using technological competences.

#### The questionnaire components

The questionnaire is composed of:

Part 1: general information to identify the level of the technological competences of teachers and it consisted of 4 fields and got 22 expressions.

Part 2: it has 28 expressions that are distributed into two dimensions and was formulated at a level of three dimensions: high / medium / low, which aimed at using the technological machines in high schools and it, got 6 expressions.

#### The ethical dimensions of the study:

Validity is to measure what a test is supposed to measure. To do so, the questionnaire was evaluated by 5 teachers in the domain of technology. They evaluated at the level of grammar and mechanics, the appropriateness of the research questions and recommendations.

Reliability is when the research results are the same whenever the study is replicated. For this end, the researcher used the coefficient Alpha Cronbach to identify the reliability of the 28 questionnaire expressions

Expression number	Thecoefficient Alpha	The square root
	Cronbach	
28	0.88	0.93

It is noticed that alpha cronbach equals 0.88 and it reflects the reliability of this research

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**Objectivity** is when the final work is submitted to scrutiny to a group of specialised researchers in the domain and getting the same score from them by being neutral and impartial in judging any academic work

#### The statistical study

The researchers processed the data and the statistical equation which resulted in:

Calculating the reliability dimension of alpha cronbach

Alculating the percentage

And calculating the test of K<sup>2</sup> and adding the repeated answers and calculating the percentage.

A

X percentage

R repeated answers

S the number of the participants then we calculated the K<sup>2</sup> test

The results and the interpretations:

Part 1. Identifying the teachers' technological competences

#### 1. Using computers in teaching

Q1. The ability of defining, turning on and using the computer parts like printers, scanners, data shows and numerical cameras

The ansewrs	The repeat	The percentage	K2 calculated	K2 tabular	The level of the denotation	Degree of freedom	The statistical desision
With a big degree	22	52.38					
			16	5.00	0.05	2	The existence
With an average degree	2	4.76	16	5.99	0.05	2	of a clear diffrence
With a weak degree	18	42.85					
The total	42	100					

The results indicated that the percentage of the technological competence is 22 with a percentage of 52.35% and the competent teachers' percentage is 85.42% and those who master the use of technology is 2%

Part 2. The obstacles of using ICT's

O1.	The	lack	of	technol	logical	material.
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The ansewrs	The repeat	The percentage	K2 calculated	K2 tabular	The level of the denotation	Degree of freedom	The statistical desision
With a big degree	22	52.38					The existence
With an average degree	2	23.80	6.85	5.99	0.05	2	of a clear diffrence
Witha weak degree	18	23.80					
The total	42	100					

The results showed that the availability of the internet is 52.38% and the percentage of its availability at a medium level is 23.8%

In the light of the above study, the results showed that the teachers of physical education lack the appropriate technological competences and these results confirmed a previous study done by Alnadjar about the availability of the use of ICT's in Jordan and his view of using ICT's in a changing time.

These results are different from the one of Sulimane Elomari which indicated that males are proficient in using ICT's more than women are and it showed that teachers did not have the opportunity to undertake a training that would clarify all of the aspects and the uses of ICT's in their teaching. However, the results of this study go hand in hand with the results of Yoka and Hobber (2001) that indicated that pre-service teachers were ready to undertake a training about the use of ICT's in their teachers. This study confirmed the hypothesis that novice Algerian teachers are ready to embrace new techniques of teaching in which technology can be a part of their teaching as well.

Based on the results in tables 10/11/12/13/14/15/16/17/18/19/20/22, it is concluded that the teachers have the technological competences to teach physical education.

Based on tables 2/6/7/8/16 it is concluded that the teachers have a medium level of using ICT's Based on tables 31/4/5/6 it is concluded that there are obstacles of using ICT's in high schools.

#### **CONCLUSION**

Physical education becomes a very interesting field that leads nations to development and flourishment through the realization of goals and human values. However, the field of the start of these ambitions, the school, is neglected within the teaching of physical education due to the fact that the module of physical education is not given its appropriate value as a module that can produce talents and the lack of efforts and materials to teach it effectively.

For the above reasons, the researchers conducted the study by means of a questionnaire to see whether or not the teachers of physical education possess the technological competence or not and he concluded that they have a modest knowledge in the field and they are ready to make efforts in order to insert that competence in their teaching. The study also suggests some useful recommendations.

#### RECOMMENDATIONS

Based on previous results, the following recommendations are suggested. The teachers are required to use the competences that were suggested by this study. In addition, the teachers of physical education are supposed to be trained on how to use ICT's and it is crucial for the Ministry of education to stress the importance of inserting this dimension in teachers' training especially at the level of using softwares and advancing research in this area.

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# The effectiveness of fast walking to improve some elements of Health-Related Physical Fitness regarding elderly over 60 years.

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#### **Abstract**

The study aimed at the use of recreational models of the fast walking and to learn about their effectiveness on some of the elements of physical fitness related to health (cardio respiratory fitness and body composition) of men older than 60 years. The study was conducted on a sample of 08 elderly men (over 60 years of age). The researchers used the experimental method with the use of some measuring tools, such as personal interviews with specialists from professors and doctors, as well as tests and measurements to collect information. A program of 36 sessions was applied for 40-60 minutes during 12 weeks. After the statistical treatment, the researchers found the proposed typical units to be effective, fast walking improved cardiorespiratory fitness and body composition of the study sample. In the light of the results, the researchers suggested to intensify this type of studies which concern not only the health of the elderly but the health of different age groups in general, And provide natural therapeutic solutions by sport for the maintain of physical fitness which is closely related to health and consequently reduce drugs and chemicals.

Keywords: Walking, Some elements of Health-Related Physical Fitness, seniors over 60 yrs old

#### INTRODUCTION

walking is considered as moderate fatigue aerobic exercise Which ensures the movement of most of the body's muscles (More than 70% of the body muscles) Klaus Schumacher defines it as an ideal daily sport because it constitutes a natural form of movement for the human body, also the regular walking maintains the health of the body, the mind ,the spirit and their fitness as It increases human flexibility and improves its emotional state. (Schumacher 2002, p11) Hippocrate considered it as the best remedy for humans. It prevents some of the most known diseases nowadays, such as blood pressure, blood sugar, osteoporosis, stroke, etc.A Ferguen(2016) Based on the importance of walking as a prerequisite for life Whether it is for the healthy or sick persons and even for the elderly who suffer from poor fitness related to impaired health with increased weight and lack of mobility, Where research indicate the importance of walking as a special fitness that humans in general should have and in prevention from diseases (Ibrahim, 2001, p. 189) and as the American Medical Association (ACSM 1993) clearly mentioned in its report the importance of aerobic exercise and its role in lowering blood pressure and raising the level of fitness. (Nashwan, 2010,p. 134-133) this research is an attempt to propose model of fast walking units To improve some fitness elements related to health for the elderly (over 60 years of age).

#### **Objectives of research**

- -Detecting the reality of sport activity amongst the elderly.
- Indicating the effectiveness of brisk walking in improving health-related fitness elements for older people 60 years of age and older.

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- Care and Attention for elderly and their medical follow-up.

#### Research methodology and Field procedures:

#### **Research methodology**

The researchers used the experimental approach for its relevance to the nature and problem of the research because it represents a scientific diagnosis of problems and phenomena, , the experimental design was used in the pre-and post-measurement method for both experimental and control samples.

#### **Community and research sample:**

The research community consists of elderly people from old people's home of Tiaret region of Algeria that counts 55 people, where The researchers selected a sample of (16) elderly chosen in an intended way and divided into two equal groups(Experimental and control) (08) persons per group. In order to control the variables of the research, elderly people whose health was not conducive to physical activity were excluded according to the recommendations of the doctor and specialist educator.

#### **Research tools:**

- 1-Sources and references, as well as previous studies and expert polls
- 2-Personal interviews

The researchers interviewed some specialists In the field of the elderly and aerobic activity to identify the nature of the objectives of the typical units.

- 3-Arbitration Form
- -Test Qualification form.
- typical Units Arbitration Form.
- 4- tools used in research:
- 1-Digital Weight Scale.
- 2- Digital timing clocks.
- 3 -Stadiometer to measure length
- 4-skin thickness measurement device(Harpenden)
- 5- Evaluation tests:

#### First test: Body mass index (BMI)

**method**: The design of this study carried out experimental research with a pre and post test for two groups formed on the basis of Body Mass Index (BMI). (Kaukab Azeem, 2015)

**body weight:** The body weight is measured to the nearest 100 grams by a digital medical balance, and the measurement is done without shoes and with the least clothing on the tested body.

**Body height:** The length of the body is measured to the nearest centimeter, with the person being tested standing in a vertical position, and the measurement is done without shoes and with the least clothing.

**Registration of grades:** The weight is recorded in kilograms and the length is in meters.

Second test: the measurement of the thickness of the fold of the skin in three areas, namely the region of The triceps brachii muscle, and in an area below the shoulder blade, and in the medial area of the leg. (Al-Hazza, 2005, p.5-6)

#### Start:

- 1-The examined removes his clothes to be ready to be measured.
- 2- Anatomical areas are carefully defined for measurement.

method: The thickness of the skin fold is measured in the anatomical areas to be measured, and

on the right side of the body. The best way to measure thickness of the skin fold is as follows.

- 1- The anatomical area of the location where the thickness of the skin fold is to be measured is clearly defined.
- 2- The examiner using one of his hands, put the index finger and thumb on the skin of the examinee, and the distance between them is about 6-7 cm.
- 3- The examiner then pulls the skin by bringing the index finger and thumb together, then lifting the skin fold away from the muscles by about 2-3 cm.
- 4- With the other hand, the examiner sets the jaw of the device on the skin fold (away from the thumb and forefinger by one cm) and then relaxes (releasing) the jaws.
- 5- The thickness is read directly from the device after about 2-3 seconds after setting the device and stability of the indicator.
- 6- The measurement is repeated on the same place two more times, and then the average of the three readings is taken (in some cases when one of the readings is far from the other two, the average of the two readings is taken).
- 7- If the index continues to decline after each attempt, it is necessary to stop measuring at this area and return to it again.
- 8- When you finish reading, you should avoid pulling the device's jaws directly from the skin, but press the device jaws and then gently remove it from the body, so as not to scratch the skin. (Al-Hazza, 2005, p.5-6)

Registration of grades: The degree of skin fold is recorded in millimeters.

#### third test: Walk 6 minutes.

Objective of the test: Measurement of aerobic fitness

#### method:

- Starting from the stand position, behind the starting line and when giving the start signal, the person being tested walks as fast as possible for six minutes to travel the maximum distance possible.

Recording results: Measuring the distance walked in 6 minutes to the nearest meter.

(Jones, 1998, p. 373-363) (Eastwood, 2009, p. 1-7)

#### The foundations of the program:

observance of scientific references Schrozeburg Study, December 1981; Joghdom and Guenoun al habib study 2013; Maher Ahmed Asi study 2006; Mohammed Rawashandah Mohammed Ali Asma El Ghassab, study 2008; Nabila Abdullah Mohammed Omran Study 1990.

- Faculty of Sports Medicine recommendations.
- -Questionnaire from expert opinions and expert consultation.

#### Establishment of the proposed typical units:

- To achieve the purpose of these proposed units, the following principles were **taken into consideration:**
- 1-The proposed units should achieve the purpose for which they are intended, that to improve health-related fitness elements.
- 2- Gradually increase the difficulty so that the body can adapt to the effort made, and this is achieved by :
- -Intensity of activity: The intensity in where physical activity should be exercised in.
- -Duration of physical activity: the length of time to be spent during physical activity daily (Or each time).
- -The repetition of physical activity: the number of times per week of physical activity.

#### The rule of gradation in intensity and duration and frequency:

- -That the program correspond to the preferences and needs of the elderly as well as to stimulate the desire and enthusiasm to exert the effort and achieve the desired goal.
- -That the activity correspond to the program and the facilities available in the old people's home. **Determining the content of the proposed typical units:**
- The proposed typical units consisted in aerobic activity, which is walking in fast and close steps, and some exercises and games in three training units within 12 weeks.
- The rule of gradation in intensity, duration and frequency has been considered as follows:
- Psychological and physical relaxation: 5-10 minutes easy walking very comfortable back or forward.
- Flexibility exercises.
- -The main part: Time gradation of 20-60 minutes by intensity from 40-60% of the maximum heart rate reserve.
- -The final part: a 5-10 minutes period o time consisting in relaxing exercises.
- Steps to implement the typical units: After obtaining the necessary administrative approvals from the Director of the old people's home to apply the tests and the proposed model units and after the approval of the elderly themselves, it was agreed with the sample subject of the search on the work to do to reach the previously established goals.

#### The results

	Experimental group			Control	Control group			T	significant
	X	Y	Skewness	X	Y	Skewness	Calculate d	Tabula r	differences
Age (years)	63,12	9,17	0,99	60,37	8,68	0,78	1,11		Not significant
Weight (KG)	74,12	13,9	0,74	76,37	10,82	0,27	1,65	3,79	Not significant
height (CM)	1,68	0,04	0,62	1,65	0,04	1,01	0,5		Not significant
IBM(KG /M2)	26,07	3,83	0,43	27,72	2,64	0,3	2,1		Not significant

**Table (01)** shows the degree of homogeneity between the two samples at the level of significance 0.05 and the degree of freedom 7.

The results of Table (01) show the degree of homogeneity between the two samples in the variables of the study age, weight, height and mass index, since all calculated values(1,11;1,65;0,5;2,1) are Smaller than the T-tabular 3,79. And all of the values of the Skewness were limited between (-3,+3) Which indicates that the data distribution of the variables between the two samples is normally distributed which facilitated the study, the researchers also used BMI to determine the weight of the sample which they think is important in determining the process of walking as the increase of weight over the normal limit affects the elderly.

The weight index of the research sample showed an increase in weight, meaning that there was an increase in lipid mass. This is due to physiological changes that occur with age and thus affects external changes, "The elderly find it difficult to move and maintain the posture of the body and balance due to several reasons, including the loss of muscle mass (30-50%) and increase of the lipid mass and aging Cartilage and loss of elasticity of ligaments and tendons.

(stella c. &., 2000.p10).

Statistical	Control		experimental		Т	Statistical
measurements Tests	X1	Y1	X1	Y1	Calculated	significance
Walking test 6 minutes (meter)	3.95	47.13	621.5	40.66	485	Significant
IBM(KG/M2)	8.18	2.46	21.23	2.68	27.8	Significant
Skin folds (%)	4.46	3.12	21.67	1.83	28.63	Significant

Significance level 0.05 and the degree of freedom = 14

TTabular=1.76

**Table (02)** shows the results of the tests after the statistical treatment of the experimental and control sample in the post-test of 6 minutes of walking, IBM and skin folds.

### Presentation and analysis of the results of the post-test of 6 minutes walking for the two samples of the research:

The results of the post-test of 6 minutes walking in Table (02) of the experimental and control sample show the positive and concrete effect of the application of the proposed typical units and their effectiveness in improving the cardio respiratory fitness, where the value of "T" calculated 3.95 is greater than the value of "T" tabular 1.76 at the level of significance 0.05 and the degree of freedom 14.

The results also showed that regularity in the practice of aerobic activity is appropriate and plays an important role in obtaining some important functional adjustments related to health the level of the sample too was within normal limits in some variables, especially in the heart energy index.

The proposed typical units positively affected the improvement of heart and respiratory efficiency of experimental individuals through gradation and adaptation to the charge. This is confirmed by the recommendations of the American College of Sports Medicine (ACSM) on the quantity and quality of physical activity needed to develop heart and lung efficiency, In order to develop respiratory fitness, the activity must be aerobic (walking, jogging, riding a bicycle, swimming, rope jumping etc. (Al-Hazza, 2001).

### Presentation and analysis of the results of the post-test IBM for the two samples of the research:

Table (02) shows that the difference is significant between the results of the post-test for the control and experimental groups of the IBM test in favor of the experimental sample, the estimated value of "T "is 8.18 Which is greater than "T" tabular the estimated "T" of: 1.76 at the level of significance of 0.05 and the degree of freedom of 14.

### Presentation and analysis of the results of the post-test of the skin folds for the two samples of the research:

Table (02) shows that the value of calculated "T" 4.46 is greater than the tabular value of "1.76" at the level of 0.05 and the degree of freedom 14 in the post-test for the skin folds of the two samples and this in favor of the experimental sample.

#### DISCUSSION OF THE RESULTS

The results indicated in Table (02) for the 6 minutes walking test specific to cardio-respiratory fitness showed that the proposed typical units had a positive effect by containing an aerobic activity, this is what the theoretical study came to, as Al-Hazza pointed out "In order to improve the efficiency of the circulatory system, moderate physical activity should be exercised for a total of 30 minutes a day on most days of the week, with each activity period lasting at least 10 minutes. Aerobic activities can include walking, swimming, stationary bike riding and similar activities. "(Al-Hazza, pp. 18-19).

This is also confirmed by previous studies that reached the same results as a study of Boudjelal Djelloul and Khayati Abdrahim 2013, study of Sherbah Rabah and Abdelghani 2013, study of Schrozberg 1981, study of Joughdom Adda and Guenoun Habib 2013, Study of Maher Ahmed Assi, Study of Alki Iman 2012, study of Nabila Abdallah Mohamed Omran 1990, All agreed that endurance activities had a positive effect on improving some of the physical and physiological abilities associated with health in older persons through gradation and adaptation to the charge. As for the results of the mass analyzer test shown in Table (02), the researchers attributed the reasons for these differences to the fact that the proposed typical units aim at improving body composition this is due to the positive effect of fast walking on the body weight and body mass rates in the experimental sample.

Referring to the study of Farid Abdelfatah Khashba-Hassini Sayed Ayoub-Walid Mustapha Sayed Darwish1993-stady of Mohamed rawashinda, Mohamed al Ali, Ismail Gassab2008,study of Ben sakhria Tayeb 2013, study of Abdellah al Sharef and Harath al Sharef 2012/2013 We find that their results match the results of our study. This is confirmed by the World Health Organization document on physical activity and health, which culminated in the 2004 issue of its International Strategy for Food and Physical Activity. Among the positive effects of physical activity is the increase in energy spent by the body, thus contributing effectively to prevention Obesity and its riddance. Regarding the test results of the skin folds shown in Table (02), the researchers refer the reasons for this statistical significance to the contribution of fast walking in reducing the proportion of fat in the body.

And our study agreed with a study of Farid Abdelfatah Khashba -Sayed Ayoub-Walid Mustapha Sayed Darwish1993 -stady of Mohamed rawashinda Mohamed al Ali, Ismail Gassab2008 -study of Ben sakhria Tayeb 2013-study of Hatabi Mohamed and al Abid Ali 2013 On the positive effect of the proposed units in the reduction of body fat percentage in the research sample. This is indicated in the recommendations of the specialized scientific bodies to the importance of maintaining an optimal proportion of fat in the body, which is linked to the inverse of the maximum aerobic capacity and performance (Rockville, 1998)

#### **CONCLUSION**

That the typical units of fast walking are ideal for older people and have been suggested to improve the fitness related to health (respiratory fitness and body composition) for the category of 60 years old and above based on theoretical studies, previous studies and expert opinions. These units also took into account the principle of gradation Which is the most important principle in the sport of the elderly. The results of the study showed in the three tests 6 minutes walking, IBM test, test of the skin folds of the existence of statistically significant differences in

the post-test of the experimental sample.

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# **Baduanjin an Ancient Chinese Exercise to Improve Health Related Function in Older Adults - A Systematic Review**

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#### **Abstract**

Baduanjin (Eight-Treasured Exercises) is one of the many health-promoting ancient Chinese exercises that can easily be learnt without a teacher. Its therapeutic value is unproven, however, it is claimed to be valuable for Cognitive function, sleep quality, digestion, circulation, immunity, bodies relaxation, mood, confidence etc. Although the exercise may be practiced by following the pictures and instructions, success really depends on concentration, relaxation and daily practice.

Keywords: Baduanjin, Older Adults, Health, Qi.

#### INTRODUCTION

Baduanjin is a qigong which has more than one thousand years of history in China. It is a typical exercise to promote health. This exercise is based on the common rules of Baduanjin exercise, combined with the holistic view and the theory of Qi in traditional Chinese medicine. When practicing Baduanjin exercise, the body maintains a steady gravity center. With the lumbar spine as the axis, the movement of the four limbs is driven. The muscle tension and relaxation are alternating at different parts of the body. In practicing, the mind, body, and breath are required to be smooth and unstrained. Mind in qigong refers to one's mental state and normal consciousness and bodily movements guided by the mind and thoughts. The two form an interactive and inter-promotional integrity, characterized by harmony and symmetry shown in all and between every two movements. Baduanjin is noted for its smooth comfortable postures and its movements are performed with profound inner strength. With a concentrated mind followed by a vigorous body, it naturally combines firmness with gentleness, and exercises through the interplay of empty and full.

The control of these elements follows a certain sequence. The continuity and mastery of the movement required in practicing Baduanjin exercise cannot be fully achieved unless after a certain period of training. Therefore, the practicing of Baduanjin exercise requires persistence, gradual improvement, and reasonable arrangement of time.

As China's traditional form of sport, Baduanjin exercise has gained a wide popularity in China. However, the health promoting value of Baduanjin exercise has not been fully recognized worldwide as that of Taijiquan. The positive effects of Baduanjin exercise as a traditional Chinese qigong are yet to be confirmed sufficiently through the randomized controlled trials. Relevant studies at home and abroad are quite limited. Highlighting the movement rhythm and a good control of the movement intensity, Baduanjin can be used as an auxiliary therapy for knee joint arthritis. Due to the requirement for the coordination between the mind and the body in Baduanjin exercise, psychological assessment has been conducted after the intervention. Baduanjin exercise is widely accepted between middle-aged and elderly populations with abnormal blood fats or associated metabolic diseases.

Baduanjin is a safe aerobic exercise which features a movement intensity and format in

line with the theories of kinetics and physiology. It is different from other types of aerobic exercise in that the practitioners are required to reach the coordination between the mind and the body. A greater emphasis is laid on exercising the body and cultivating the disposition. So far, few studies have been devoted to the health promoting effect of Baduanjin exercise among healthy adults. Most studies concerning the health promoting effect among patients with chronic diseases are limited to the observation of psychological indices and blood lipid indices. But when evaluating a traditional form of qigong in China from the holistic view, the benefits of Baduanjin exercise cannot be fully reflected by a single index.

#### EIGHT SECTION PIECES OF BROCADE



#### MATERIALS AND METHODS

Since many Baduanjin studies were conducted in China and published only in Chinese language journals. Electronic relevant publications from English databases were reviewed. Searched and screened the titles and abstracts of the studies identified by the search against the eligibility criteria for English databases independently. The characteristics of the original research and

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extracted data accordingly. Some basic information was collected based on date of publication. study sites, language of study, and clinical domains.

#### SUMMARY OF BADUANJIN STUDIES REVIEWED

This study examined the relationship of physical activity to cognition in a cross-section of 241 community-dwelling individuals 15-71 years of age with a task requiring variable amounts of executive control. Data were analyzed with multiple regressions, which controlled for age, sex, and IQ. Participants reported their physical activity behavior and were tested for reaction time (RT) and response accuracy on congruent and incongruent conditions of a flanker task, which manipulates interference control. After controlling for confounding variables, an agerelated slowing of RT was observed during both congruent and incongruent flanker conditions. However, physical activity was associated with faster RT during these conditions, regardless of age. Response accuracy findings indicated that increased physical activity was associated with better performance only during the incongruent condition for the older cohort. (1)

Sleep disturbance is a major problem for older adults. The purpose of this study was to explore the effectiveness of a Baduanjin exercise program on sleep quality in Taiwanese elderly. A randomized controlled trial, longitudinal research design was employed. The inclusion criteria for participants were as follows: community-dwelling older adults age 60 years or older, no regular exercise within 6 months, able to communicate and independent in self-care. Subjects were excluded if they had (1) depression tendency as demonstrated by the Chinese version of the Geriatric Depression Score of eight or higher ;(2) impaired mobility; or (3) unstable health status. A total of 202 older people were screened for this study, 87 of whom were eligible according to the inclusion criteria. Of these, 55 completed the 12-week study. Fifty-five participants were randomly assigned to the exercise group or the control group. Those in the exercise group received 12 weeks of Baduanjin exercise training, while those in the control group had no intervention. The Pittsburg Sleep Quality Index was administered to subjects at four time points: before the intervention, and at the 4th, 8th, and 12th week after intervention. Subjects in the Baduanjin exercise group had significantly improved overall sleep quality, subjective sleep quality, sleep latency, sleep duration, sleep efficiency, and daytime dysfunction after 12 weeks of intervention (p<0.001), while those in control group showed no significant difference in sleep quality. Compared with the control group, the Baduanjin exercise group reported significantly better sleep quality after four weeks of intervention which was maintained throughout the 12-week exercise period. (2)

The objective of this study was to qualitatively evaluate the perceived benefit of regular Baduanjin qigong in community elders. A total of 20 participants who had completed the 12week Baduanjin gigong training were interviewed regarding their perceived effect on physical and psychological health and whether Baduanjin qigong was suitable for the elderly. Results. Almost all participants agreed that Baduanjin qigong could promote their multisystem or organ functions (e.g., digestive and circulatory systems), increase their immunity, make their bodies relax, and improve their mood and confidence. Most of the participants also agreed that Baduanjin qigong was appropriate for elderly individuals. (3)

The current quasi-experimental study was intended to determine the efficacy of Baduanjin (translation: eight-section brocade) in improving balance ability of Chinese community-dwelling older adults. The trial group (n = 47) engaged in a Baduanjin exercise program for 12 weeks, whereas the control group (n = 48) participated in a 12-week walking exercise program. After the intervention, participants' balance ability was evaluated using the

Timed Up and Go Test (TUGT), One Leg Standing Test (OLST), Berg Balance Scale (BBS), and Modified Falls Efficacy Scale (MFES). Baduanjin was associated with The current quasi-experimental study was intended to determine the efficacy of Baduanjin (translation: eight-section brocade) in improving balance ability of Chinese community-dwelling older adults. The trial group (n = 47) engaged in a Baduanjin exercise program for 12 weeks, whereas the control group (n = 48) participated in a 12-week walking exercise program. After the intervention, participants' balance ability was evaluated using the Timed Up and Go Test (TUGT), One Leg Standing Test (OLST), Berg Balance Scale (BBS), and Modified Falls Efficacy Scale (MFES). Baduanjin was associated with increased TUGT and OLST scores at Week 6 with continuous increases reported through Week 12. Baduanjin was also associated with increased BBS and MFES scores at week 12<sup>(4)</sup>

#### **RESULT**

Several publication were studied between 2001 and 2011 were included in this systematic review. Findings suggest that physical activity may be beneficial to both general and selective aspects of cognition, particularly among older adults. This study confirmed that the Baduanjin exercise program can improve sleep quality for Taiwanese community-dwelling older adults. The findings also suggest that regular Baduanjin qigong may be potentially helpful to promote the overall physical and psychological health of elderly community populations and may be useful and feasible as a body-mind exercise in the health promotion in the elderly community populations. Baduanjin may be an effective means for improving balance ability in Chinese community-dwelling older adults.

Findings suggest that physical activity may be beneficial to both general and selective aspects of cognition, particularly among older adults. This study confirmed that the Baduanjin exercise program can improve sleep quality for Taiwanese community-dwelling older adults. The findings also suggest that regular Baduanjin qigong may be potentially helpful to promote the overall physical and psychological health of elderly community populations and may be useful and feasible as a body-mind exercise in the health promotion in the elderly community populations. Baduanjin may be an effective means for improving balance ability in Chinese community-dwelling older adults.

#### **DISCUSSION**

The studies in this paper demonstrated that Baduanjin may have beneficial effects for a variety of populations on a range of psychological well-being measures, including mood, anxiety, depression, general stress management, quality of life, and exercise self-efficacy. The movements of Baduanjin are relatively easy to learn, when compared to other mind body traditions. Hence, people from diverse backgrounds practice Baduanjin for a variety of reasons, including exercise, recreation, well-being, self-healing, meditation, self-cultivation, and training for martial arts. We see a great potential for Baduanjin to be integrated for the prevention and treatment of various chronic illnesses, including psychiatric disorders.

Baduanjin practice usually involves movements with breathing exercises and visualization. All these could have beneficial effects to psychological well being. We have acknowledged that the outcomes of studying such Qigong practices will not provide us with the information on the question whether Baduanjin (movements with breathing exercise and visualization) alone is beneficial to psychological well being. Positive expectations or social

interactions may add to effects related to the Baduanjin intervention, to form multi-component mind-body practices instead of a single intervention. This may lead to bias since positive outcomes from the study could be due to positive expectations or social interactions rather than to the Baduanjin intervention. It will also be important in future studies to control for what has been called the frustrebo effect (i.e., negative effects emanating from subject frustration in not receiving the kind of intervention they feel they need).

The pilot studies on patients with chronic illnesses conducted to collect preliminary data on the efficacy of a group intervention to estimate the effect size needed for a larger, more definitive study. While the studies provided valuable data regarding feasibility and clinical efficacy, the use of a small sample could lead to instability of the outcomes, making it harder to generalize to other populations. Subsequently, long-term psychological effects of Baduanjin are unclear.

However, the studies reviewed generally had significant methodological limitations. Future RCTs with rigorous research design based upon the consort statements are needed to establish the efficacy of Qigong in improving psychological well-being and its potential to be used as interventions for populations with various clinical conditions.

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# Effect of different Exercises in special Endurance and some Kinetic variables in parts Running 400 m Hurdles

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#### INTRODUCTION

The world has witnessed a rapid development in athletics after or developed the developed countries of the great possibilities to raise the level of sports in advanced scientific ways through which to invest the technical and physical potential of all athletes, making them reach the highest levels and win medals at the international and Olympic level, and this was not a sporadic but a result To use modern scientific means in planning and training. The 400 meter hurdles are one of the fastest and most powerful athletics events in the short-term (relatively short) (400 meters hurdles) in particular is one of the topics that occupy the minds of many interested in achieving the digital development of this event due to the length of the race and the time it was cut. This activity depends on its motor performance to achieve the highest levels of physical qualities and the degree of integration between them, especially the carrying speed and strength, because these two characteristics of the relationship of a large factor fatigue resistance if our teacher special tolerance means "the ability to perform the motor duty accurately the length of performance Or for a certain period of time ", so this relationship comes through the efficiency of the nervous system - muscle to generate the necessary force during the stages of the race, especially when the implementation of each step length and frequency, the increase in either of these factors with the stability of one or increase together work on improvement The speed of the runner, since the speed of the runner begins to decrease in the 400 meters hurdles at the beginning of the muscle stress, which is determined at some point during the total distance of the race, and this stress affects both the length of the step and frequency and thus affect the level of achievement,

#### The importance of study

Therefore, the researchers believe that this is due to the weakness in both carrying speed and carrying strength, which is related to the quality of the exercises applied by the athlete of this activity and their training, so the importance of research in this preparation of various exercises intensity of jump and different weights and impact in the variables step and completion ran 400 meters hurdles.

#### Problem of the study

Through the follow-up and briefings of the researchers on the field of the short-distance enemy in Iraq, including the effectiveness of enemy 400 meters hurdles, it was noted that one of the reasons for the low level of achievement of this effectiveness is the lack of use and codification of the appropriate training methods, as well as a lack of emphasis on the use of speed training and Especially as a training method with different resistances in order to develop the level of achievement. Hence, the problem of research was concentrated through the use of different training methods compared to what reached the level of hostile world and how to apply them to our age groups, including young people, in order to raise the level required in the achievement of advanced results in power games in Iraq.

#### Objectives of the study

- 1. Identify the impact of different resistance exercises in special endurance.
- 2. Identify the impact of different resistance exercises in some kinetic variables and accomplish 400 meters hurdles

Study hypotheses

- 1 The impact of various resistance exercises in some kinetic variables and the achievement of enemy 400 meters hurdles
- 2 There are statistically significant differences between the tribal and remote tests in the values of special and kinetic endurance variables and achievement in the 400 m hurdles of the experimental and control groups.

#### Fields of study

- 1 The human field: the youth of Diwaniya clubs for the effectiveness of running 400 meters hurdles and registered with the Central League of the athletics of the season 2016-2017
- 2. Time domain: 1/10/2016 --- 25/12/2016
- 3- Spatial field: Al Diwaniyah and Afk Sports Club

Methodology and field procedures

#### Study Approach

"The researchers used the experimental approach in a two-group approach to suit the nature of the research, which is one of the methods by which accurate results can be achieved." Experimentation is one of the most efficient means of reaching reliable knowledge."

#### Society and Study Sample

The research community was determined from the players of the West Lever region in the youth athletics of the 400 m hurdles of 12 players and 18-19 years of the Diwaniyah clubs. In the random way, 10 contestants were chosen. 83% of the research community for the 2016 sports season. The research sample was then divided into two groups (experimental and control) and (5) contestants for each group.

#### Tools and equipment used in the study:

Arab and foreign sources

**Tests** 

Medical balance for measuring German-made height and weight, Sony Japanese-made camera with a speed of (25) image per second (8), Electronic stopwatch (2), A Chinese - made dell type Dart Fish special for cutting pictures

Track and field

Test jogging by jumping for a minute

Objective of the test: measuring the carrying power

Registration: The distance traveled by the runner is recorded at the end of the scheduled distance by a stopwatch (a hand clock)

Test ran 300 m

Objective of the test: measure the bearing speed

Registration: The team will record the time spent for each member of the sample

#### **Exploration Experience**

The pilot experiment is a preliminary pilot study carried out by the researchers on a small sample before it was researched in order to test the methods of research and tools.

The experiment was conducted on Thursday, 14/10/2016 at 4:00 pm and at the stadium of Afak Sports Club and on (three runners) of the members of the research sample, in order to identify 1. Ensure the validity of cameras 2 Ensure the appropriate dimension of the cameras.

#### **Experimental Design**

"Each group undergoes a pre-test to determine its status prior to the introduction of the experimental variable and then to the experiential variable, as the first group is trained in the traditional method of developing the speed and stages of the trainer, while the second group is based on training using resistive exercises Different for the development of your endurance, length and frequency of the step and completion in the effectiveness of enemy 400 m hurdles and for a period of (8) weeks and the reality of (2) training modules per week as in Annex (1).

#### Main experience

Tribal tests and measurements: The tests and the tribal measurements of the control and experimental groups were carried out over the course of two days on 15-16 / 10/2016 at 4:00 pm and on the track of the AFC Sports Club. The tests were as follows: The first day was the speed tolerance test (15 minutes) Power.

Achievement test run (400) meters hurdles and the extraction of variables of the rate of speed and length and frequency of step by imaging.

Implementation of the training curriculum:

After the completion of the implementation of the tribal tests was started implementation of the training curriculum prepared by the researchers of the experimental group began implementation on 19/10/2016 until Tuesday, 26/12/2016. As in Annex (1)

Tests and dimension measurements:

The remote tests of the control and experimental groups were carried out on Thursday 28/12/2016 after the end of the training program on 26/12/2016. Post-tests were performed under the same conditions as the tribal tests.

Statistical means

The researchers used the statistical bag (SPSS)

Display the results discussed

Presenting and discussing the results of tribal and remote tests of the research variables

Presenting and discussing the time variable for the 400 meter hurdles every 100 meters

Table (1), Shows the computational circles, standard deviations and time-varying values for each part of the 400-m hurdles of the experimental group

The tabular value is below the degree of freedom 5 and the significance level

The		t- test	Post	- test	Per-	test	
result	Tables	Calcul		SMA		SMA	Variables
		ated	standa		standa		
			rd		rd		
			deviati		deviati		
			on		on		
Significa		2.85	0.77		0.25		First time of 100 m
nt				12.33		12.88	
Significa		2.933	0.43		0.44		Second time 100 m
nt				13.20		13.44	
Significa	57	2.94	0.59		0.37		Third time 100 m
nt	2.57			14.69		16.55	
Significa		4.19	0.28		1.09		Fourth time 100 m
nt				15.77		16.77	
Significa		4.31	0.95		1.07		Achievement
nt				55.99		59.64	

\* The tabular value is below the degree of freedom 5 and the significance level is 0.05 Table (2), Shows the computational circles, standard deviations, and time-varying values for each part of the 400-m hurdles of the control group

The		t- test	Post	- test	Per-	test	
result	Tables	Calcul		SMA		SMA	Variables
		ated	standa		standa		
			rd		rd		
			deviati		deviati		
			on		on		
Significa		2.75	0.77		0.25		First time of 100 m
nt				13.44		13.44	
Significa		2.97	0.43		0.44		Second time 100 m
nt				13.66		14.23	
Significa	2.57	2.94	0.59		0.37		Third time 100 m
nt	2.			15.00		15.98	
Significa		4.19	0.28		1.09		Fourth time 100 m
nt				16.22		16.88	
Significa		4.31	0.95		1.07		Achievement
nt				58.32		60.53	

Table (1.2) shows that calculated values were greater than their tabular value (57.2). This indicates that there are significant differences between the pre and post tests, and the experimental and control groups in the time variable (100) 400 meters. The researchers consider that one of the basic duties of a 400 meter hurdle is to start effectively in the first 100 meters to obtain an appropriate speed rate and maintain as much as possible at this rate in the next 100 meters (end of the first 200 meters) As the competitors of this competition achieve a limited rate of speed at the top of the stages of the first race, in addition It is also the duty of the enemy to maintain this rate, especially in the later stages of the race, ie in the third (100 meters) and fourth, and the differences were significant between the test tribal and remote and for the benefit of the post in the level of achievement, indicating that there are significant differences between the arithmetic For the tribal and remote tests and for the post-test. This change in the results of the times of the parts of the race and the level of achievement and the experimental and control groups is a clear indication of the application of exercise vocabulary for jumping different weights and traditional exercises and both groups helped to sustain the rapid force against the ground during the periods of focus, as long as possible, and this made the differences appear clear and moral Between the results of the tribal and post-test. The researchers found that although there was a significant development in the times of each (100 meters), but the results in general below the level of ambition for the final achievement achieved, meaning that the members of the research sample have made a good development in the post-test and that this development was the result of focus To develop the bearing of speed and strength in proportion to achieve a good rate of speed and an ideal fit between the length of the step and frequency and .maintain as much as possible

•

Table 3, Shows the computational circles, standard deviations, and time-varying values of each of the 400-meter distance barriers in the post-test of the experimental and control groups.

(3) The results were shown in the tests of the dimension and both groups are random in the first part (100) meters, which requires that the effectiveness of a quick start and acceleration is high, as the nature of the various jumping exercises or traditional exercises helped the contestants to rise and start quickly in the first (100) On the curve, while the differences were significant between the two groups in the post-test in favor of the pilot and the nature of the jump exercises in different Poznan sought to develop the rapid force, which led to the development of the times of each part and achievement.

Display the results of variable step length for tribal and remote tests and discuss them Table (4), Shows the computational circles, standard deviations and values of the step length variable in the pre and post test of the experimental group

The		t- test	Post	- test	Per-	test	
result	Tables	Calcul		SMA		SMA	Variables
		ated	standa		standa		
			rd		rd		
			deviati		deviati		
			on		on		
Significa		3.18	6.06	2.07	8.11	2	First time of 100 m
nt							
Significa		2.85	3.99	2.15	<b>5.57</b>	2.00	Second time 100 m
nt	57						
Significa	2	4	9.80	2.00	17.51	1.70	Third time 100 m
nt							
Significa		8,18	3.82	2.10	12.69	1.52	Fourth time 100 m
nt							

<sup>\*</sup> The tabular value is below the degree of freedom 5 and the significance level is 0.05

Sig differences	t Table s	-test Calculat ed	control standar d deviati	groups SMA	Experi gro stand ard deviat i		measr uing unit	Variables
Random		1.116	0.77		0.77		a	First time of 100
				13.44		12.33	second	m
Significant	2.44	3.028	0.43		0.43		a	Second time 100
				13.66		13.20	second	m
Significant		2.557	0.59		0.59		a	Third time 100 m
				15.00		14.69	second	
Significant		2.763	0.28		0.28		a	Fourth time 100 m
				16.22		15.77	second	
Significant		3.021	0.95		0.95		a	Achievement
				58.32		55.99	second	

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Table (5), Shows the computational circles, standard deviations and values of the step length variable in the pre- and post-control tests of the control group

The		t- test	Post -	- test	Per-	test	
result	Tables	Calcul		SMA		SMA	Variables
		ated	standa		standar		
			rd		d		
			deviati		deviatio		
			on		n		
Sig		3.18	6.06	1.90	8.11	1.70	First time of 100 m
Sig	2.57	2.85	3.99	1.80	5.57	1.65	Second time 100 m
Sig	2	4	9.80	1.78	17.51	1.57	Third time 100 m
Sig		8.18	3.82	1.75	12.69	1.62	Fourth time 100 m

Table 4-5 showed significant differences in the tribal and remote tests for both groups due to the effect of different exercises on these groups, whether the exercises were jumping with different weights or those traditional exercises that had an effect on the variable step length. The exercises that were adopted and implemented were mainly based on the development of the length of the step and in several ways. It appeared that it is not appropriate to reduce the step length with progress during the stages of the race. There must be a link between step length and speed. The maximum difference was between the results of the tribal and remote tests of the distances (300 meters) and (400 meters), which are the distances that appear (400 meters hurdles), which affects both the length of the step and the frequency of the negative and thus reflected the rate of speed and cause the decline and weak achievement of hostility in this competition.

Table (6), Shows the computational circles, standard deviations, calculated and tabular t values and the significance of differences between the control and experimental groups in the post-test in the step-length variable.

The	t- test		Post	Post - test		· test	
result	Tables	Calcul		SMA		SMA	Variables
		ated	standa		standa		
			rd		rd		
			deviati		deviati		
			on		on		
Sig		1.700	6.06	1.90	8.11	2.07	First time of 100 m
Sig	4.	0.965	3.99	1.80	5.57	2.15	Second time 100 m
Sig	2	1.171	9.80	1.78	17.51	2.00	Third time 100 m
Sig		2.742	3.82	1.75	12.69	2.10	Fourth time 100 m

In Table (6), the variable length of each step (100) meters of the 400 meter hurdle effect showed significant difference in the post-test between the experimental and control groups and for the benefit of the experimental group due to the different types of jumping maneuvers. In turn, it led to the development of the length of the step, as it included the development to achieve the appropriate payment during the process of focusing and maintaining the amount of this payment during the stages of the race to the end, which led to the upgrading level of achievement

Display the results of the frequency variable step for tribal and remote tests and discuss them

Table (7), Shows the computational circles, standard deviations and values of the frequency variable T in the pre-test and post-experimental tests

The		t- test	Post	- test	Per	- test	
result	Tables	Calcul		SMA		SMA	Variables
		ated	standa		standa		
			rd		rd		
			deviati		deviati		
			on		on		
Significa nt		3	1.30	48.11	2.03	49.88	Step frequency in the first 100
III							m m
Not Significa nt	2,57	2.14	1.31	46.47	1.23	44.60	Step frequency in second 100 m
Significa nt	2	3.24	2.29	48.63	6.21	46.90	Step frequency in third 100 m
Significa nt		6.36	0.87	48.05	4.39	42.23	Step frequency in the fourth 100 m

<sup>\*</sup> The tabular value is below the degree of freedom 5 and the significance level is 0.05

Table (8), Shows the computational circles, standard deviations, and values of the frequency variable T in the pre-and post-test tests of the control group

The		t- test	Post	- test	Per	- test	
result	Tables	Calcul		SMA		SMA	Variables
		ated	standar		standar		
			d		d		
			deviatio		deviatio		
			n		n		
Significa		3	1.30	47.10	2.03	46.77	Step frequency in
nt							the first 100 m
Not Sig	2,57	2.14	1.31	44.99	1.23	43.55	Step frequency in second 100 m
	2,						
Sig		3.24	2.29	42.63	6.21	44.90	Step frequency in third 100 m
Sig		6.36	0.87	42.05	4.39	40.23	Step frequency in the fourth 100 m

#### The tabular value is below the degree of freedom 5 and the significance level is 0.05

The results showed in Table (6 - 7), which indicates that there is a significant development in the variable frequency of the steps of the two groups of study, especially in the first and last parts of the race. This development came logically through the use of special exercises to develop this variable, The evolution of this variable corresponds to the variable length of the step discussed in the previous section, ie, an ideal ratio between the length of the step and its frequency, in proportion to the situation of the members of the research sample physically and technically, as well as their velocity, which was integrated with the achieved speed rates in These parts and the evolution of the time of cutting these distances (400 meters hurdles) should include special exercises to develop the technical aspects that are focused on the performance of speed training jointly, through rapid force training, power bearing and speed bearing, where The importance of rapid power exercises in speeding up short distances, especially when these distances are long, is directly related to two very important indicators: the length and frequency of the step, which can be organized through training as well as the physical, physiological and psychological development of the athlete. It can be said simply that the length of the step depends mainly on the strength produced by the muscle groups working, and that the frequency of steps depends on the effectiveness of the central nervous system and its activity to maintain the muscle stimulation at the highest readiness, which shows the production of force during the performance quickly despite the length of the distance completed, The results showed that there is a clear difference in the results of this variable and for the experimental group tests, which clearly indicated the effectiveness of focusing on this variable in the development of achievement.

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Table (9), Shows the computational circles, standard deviations, calculated and tabular values and the significance of differences between the control and experimental groups in the post-test in the step frequency variable

The		t- test	Post	- test	Per	- test	
result	Tables	Calcul	standa	SMA	standa	SMA	Variables
		ated	rd		rd		
			deviati		deviati		
			on		on		
Sig		3	1.30	47.10	1.30	48.11	Step frequency in the first 100 m
Not Sig	2.44	2.14	1.31	44.99	1.31	46.47	Step frequency in second 100 m
Sig	(7)	3.24	2.29	42.63	2.29	48.63	Step frequency in third 100 m
Sig		6.36	0.87	42.05	0.87	48.05	Step frequency in the fourth 100 m

Table (8) shows the post-test between the experimental and control groups in which the results were significant and for the benefit of the experimental group because of the exercises used by the experimental group with different types of divergent jump, which was evident on the frequency of the step as a result of the development of two classes of carrying power and speed bearing,

- Presentation and discussion of the results of physical tests

Table (10), Shows the computational circles, standard deviations, and (t) values for the velocity and force test tests in the pre-test and post-experimental tests

The result		t- test	Post	- test	Per	- test	
	<b>Tables</b>	Calcul		SMA		SMA	Test
		ated	standa		standa		
			rd		rd		
			deviati		deviati		
			on		on		
Significant		7.23	0.55	39.70	1.35	42.11	Run 300 meters (seconds)
	2,57						
C:	2,	12.75	0.60	205	0.61	188	Run by
Significant							jumping for a (minute (meter

<sup>\*</sup> The tabular value is below the degree of freedom 5 and the significance level is 0.05

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Table (11), Shows the computational circles, standard deviations, and (t) values for the velocity and force test tests in the pre- and post-control tests of the control group

* The tabular val	lue is below	the degree	of freedom	5 and th	he significance	e level is 0.05

The		t- test	Post	- test	Per	- test	
result	Tables	Calc	standa	SMA	standa	SMA	Test
		ulat	rd		rd		
		ed	deviati		deviati		
			on		on		
Significa nt	2,57	7.23	0.85	41.20	1.35	43.11	Run 300 meters (seconds)
Significa nt	2,5	12.7 5	0.70	197	0.61	185	Run by jumping for a minute ((meter

In Table 9-10, the results in the tribal and remote tests of the experimental and control groups in the power bearing and speed bearing variable showed significant differences as a result of the training curriculum of both groups, which led to the development of this class. Table (11), which shows the differences between the two groups, as the experimental group, which used the practice of jumping and the various ozans have been more influential in the development of two classes bearing speed and carrying power, which can maintain the highest rate of speed during the stages of the last race.

Table (12), Shows the computational circles, standard deviations, and (v) values in the remote tests of the experimental groups and the control of speed and force tolerance

The		t- test	Experimental		Control group		
result			gro	oup			Test
	<b>Tables</b>	Calcul		SMA		SMA	
		ated	standa		standa		
			rd		rd		
			deviati		deviati		
			on		on		
Significa		7.23	0.55	39.70	0.85	41.20	Run 300
nt							meters
							(seconds)
	4						
	2.44	12.75	0.60	205	0.70	197	Run by
Significa							jumping for
nt							a minute
							((meter

#### CONCLUSIONS

- 1. There were significant differences between the results of the pre-test and post-experimental tests in the study variables in favor of the post-test
- 2. A slight evolution between the results of the tribal and remote tests in the frequency variable, the step in the four stages of achievement of the control group after exposure to the training program (traditional), which are trained on it. Knowing that the frequency variable step is one of the most important variables that determine the speed of hostility.
- 3. The development of the achievement in the competition 400 meters hurdles associated with many of the basic variables without which cannot be achieved, namely (special adaptation) and (Variables of the length and frequency of the step and the rate of speed and performance time for each stage of the race).

#### RECOMMENDATIONS

- 1. The need to pay attention to the exercises to develop the length of the step in the enemy of the short distances of importance over the stages of the race.
- 2. The need to study the relationship between the time of contact with the foot of the earth and flight time at each step for their mutual influence in achieving the length and frequency of a suitable step
- 3. Emphasis on endurance exercises for different methods in the short, medium and long distances

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## Governance contribution in the total quality in sports (Case managers, officials and presidents of sports clubs)

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#### **Abstract**

The importance of our study is to try to give a predictive vision on governance in the field of sports in Algeria. This predictive approach looks at the overall quality of governance in order to be at the continental level or even across the Arab world. To identify this and answer our questions, we conducted a survey of some leaders of the different sports institutions, namely the presidents of clubs (football, handball, athletics, judo), managers also have a sports experience and occupy currently responsible positions as managers of sports facilities. The results of the survey we reveal significant figures on the component related to sports development prospects.

However, there are other aspects that are ambiguities in the management and organization that have an impact on good governance in sports.

**Keywords:** Governance, Total quality, Sport Organization, Management and Sports organization.

#### INTRODUCTION

The issue of governance in sport in Algeria, was always at the heart of concerns. It therefore continues to challenge scientists and managers to optimize the management and supervision of the sport whose aim is to achieve good governance of the Algerian sports movement.

The purpose of this research focuses on the question of total quality management and sports organization in the different structures and sports institutions of the state.

Note that these two parameters affect the nature of sports governance. For example, to solve the problem of relational management financially, reduce cost and increase market shares to grow the capital of shareholders, would be one of our initiative to offer. (Gog, J-M, 2006).

There is also the know-how and competitiveness across globalization represents the true image of the sport governance. Lots of research has been done in the field of governance in general and in sport in particular.

Therefore challenged the sport governance are multiple since the past decade. A number of issues emerge filigree: how decisions are made in sports organizations?

How are influenced by the government, politically, economically and socially?

What are the effects of modes of governance on the management styles that affect the profitability sports?

Who should lead, manager, control? (Bayle. E and Chantelat. P, 2008, p11)

#### 2-Theoretical approach on sports governance.

Sports governance, management structures and sports bodies are affected by good control of the sport, and especially the flow of ideas raised in the sports project, to provide a long-term vision.

Bayle. E and Chantelat. P, talk about the governance of organizations, then this is the mastery of information that allows managers to handle situations in different structures, and many take

the necessary measures to provide products and more ideas, take decisions to organize and give a promising sports management. (Bayle. E and Chantelat. P, 2008, p11)

And to know how governance provides a good sports organization, we can say that there is a possibility to structure the projects and ideas of people manage their decisions. Are these decisions are influenced by the government? Is it another thought or another way to fit well the understanding between groups managing situations sporting events.

Chaker. A-N, cites that "Governance, the sport in particular can be defined in several ways. It can be, according to the people, referred to different meanings, especially if one takes a global perspective.

Sports governance is the establishment of effective networks of national sports agencies, non-governmental sports organizations and procedures that operate jointly and independently under the laws, policies and specific rules for private promoting ethical sporting, democratic, efficient and transparent. "(Chaker. A-N, 2044, p 7)

We can say that the data cited by several others in the field of sports marketing that allow officials to govern the structures that arise on a well-built platform, and above which contains a rigorous strategy called true.

The viability of the Algerian sports model is in play in all countries that manage effectively their sport in all disciplines, mass sport as elite sport are dependent on two major instances resources.

Public authorities and fans of the sport. Neither of these two groups could support a continuing degradation level sport governance in the future. In another context, the sports organization and management of sports facilities could be influenced by good or bad governance.

We note, moreover, that globalization requires some political strategy based on well considered decisions.

Hums, Mrs A and others, offer coherent reflection on the political condition for good governance of sports organizations based on good policy decision like the following:

- Help to master the fundamentals of governance and conduct policies of these organizations;
- Expose the mechanisms inherent to networks that develop in the international sports area: how each interacts with other sports organization and where decisions take?
- Contextualise relations between sports organizations and political power;
- Ensuring identify specific models of global governance by showing the similarities and differences in a globalized sports world ... (Hums, Mrs A and others, 2011, p56)

#### 3-Total quality, good references for sport governance.

Good governance in sport, it is the quality of management and organization of human and material resources with the requirements of sport, national or international.

And to choose a good management and good sports organization, you have to properly structure the actors in sport or federations, leagues and clubs, to refer to the conditions of the application of total quality in the known sport globally.

Ishikawa, K. speaks good sports management in a very interesting way, but we must know the rules of the practice of field data, and for that we must define the conditions for the application of total quality. (Ishikawa, K. 2007, p 45)

Total quality is a reference model for a good sports management then you have to put in

evidence the expectations of the sports population, officials, practitioners or supporters, and there can say we are on the right track by compared to total quality data. (Adreaensens. B et al, 19993, p54)

Bannker . S and Majer . H, have given the system for applying total quality measures adapted to the sports organization and especially for sport governance. These measures are as follows:

- Sports administration officials , who give the programs and projects of sport , must create a policy to implement a true total quality.
- The objectives of their sports governance must realize the reality on the ground .
- The scientific work in the field of sports governance are references and bases to adopt a total quality policy.
- The administration of human and material resources , is the important basis that characterizes the competition to a good sports governance at the national and international levels. ( Bannker . S and Majer . H 1999 , p52 )

#### 4-Focus on the methodological framework and discussion of results.

#### **METHOD**

#### **4-1-1-Topics.**

To the tasks of our work we have carried out our investigations on forty (40) leaders and leaders of clubs (football, handball, athletics and judo) or twenty (20) heads of federations and leagues, and twenty (20) leaders of elite clubs. Sample characteristics are shown in Table No. 01

	Officials fed/ lig	Diregents clubs
Elected	+03times	+03times
N	20	20
Management general	25%	45%
Sport management	15%	88.50%
Age	56.17±0.89	53.89±1.39
President	1.67±0.70	2.34±1.63
General secretary	1.41±1.31	372±1.97
Member	13.36±1.19	18.29±1.26

#### 4-1-2-Equipment.

We used the following search engines:

- A questionnaire to member leagues.
- An interview for the presidents of federations and clubs.

#### 4-2 -Method of investigation.

#### 4-2-1 - Analytical descriptive method.

This is the most appropriate method in this kind of study primarily to restore the data and consult with a questionnaire and interview with a member of the sampling.

#### 4-3- Statistical method.

The method used is the parametric statistics (Champely 2004), which allows the characterization and cut the population and more specifically the series of values of a variable that includes using as the arithmetic average parameters (which is determined by the sum of the observed values divided by the number of series elements); variance and coefficient of variation:

$$\overline{x} = \frac{1}{n} \sum_{i=1}^{n} x_i$$

As it is very important to know how is it that the group is arranged around the middle it is grouped or scattered around it? The standard deviation is a dispersion index because it provides information on the dispersion around the mean. We calculate the standard deviation of the sample by using the following formula:

$$\sigma = \sqrt{\frac{\sum (x - \overline{x})^2}{n - 1}}$$

For analytical statistics was used Student test, to calculate the difference of means of two samples.

And to all our calculations (mean , standard deviation and T Student) we used the Office Excel 2007 software.

#### 5-Results.

**Table No. 02:** Questionnaire Results.

	Officials fed/ lig	Diregents clubs
Sports management	Yes or no	Yes or no
Yes	$17.77 \pm 2.52$	$19.89 {\pm} 0.02$
References to standards	6.05± 0.71	3.13±0.88
Adapted	3 .37± 0.21	0.52±0.20
Decisions	$15.73 \pm 0.70$	19.72±0.36
With vote	8.5±5.73	3.22 ± 4.38
Others	0.94±0.32	1.74±0.59

**Table No. 03:** Comparative analysis of the responses of federal officials and leagues with those

of club leaders.

TEST	T STUDENT
Number	50%
Self governance	0.23
<b>Decisions by vote</b>	S*at 0.05
Always	S*2.13
By references to standars	S at $p < 0.05$
Never	S **at 0.01
With model	N.S at 0.05
Polytiques decisions	N.S at 0.05
View of ISO standars	N.S at 0.05
Others	S ** at 0.01

NS: no significant difference , \* difference significant at p  $<\!0.05$  , significant difference p  $<\!0.01$  , \*\*\* significant difference at p  $<\!0.001$ 

\*\*

#### **DISCUSSION**

The analysis of the results of the sports organization settings made on our sample, we find that there is only three (03) significant differences (in various sporting events, references to known models, make decisions ...).

For the sports management: there are no significant differences between the leaders of federations and leagues and club leaders for a threshold of 0.05.

For personal decisions we note that there are significant differences between the two samples to a threshold of 0.05.

As for the comparison of answers about the interview questions, we see that very significant differences exist (S \*\*) regarding the response rate seen as iso benchmark management and sports organization (5 \* 12) for a threshold of 0.01, the rest was found significant difference.

Regarding the sample of members or in sports facilities or clubs, we have made a non-influenced data collection by comparing only the mean and standard deviation for each group, and given the small number of group club members) against nine (09) in known structures.

Thereby calculating the Student's t could not be made. They are represented as follows:

- That there is no significant difference in total a sports organization settings % between them is very small.
- That there is no significant difference in sport management capabilities but we see that the club presidents shifts a non reduced rate.
- That n is not an effort to put sports structures to ISO standards approaching total quality.

#### **CONCLUSION**

As part of our thinking, we well informed as sport governance is related to the requirements of the conditions of total quality, with reference to international rules of global structures such as federations and sports clubs .

And to establish the combination of good sports management and organization structures that manage or apply the decision and plots programs , we found in our country, few officials give a true professional dimension to the sports management Algerian , but after consulting some

officials and leaders we can hope that there is a political will in whatever federations or liege and sports clubs .

Finally, we can say that the sport governance is linked to two main points: the specialists in sports management and policy-making officials.

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# Effect of strength exercises in the horizontal (vertical - horizontal) method in some physical and kinetic variables and the achievement of long jump efficiency

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#### INTRODUCTION

The development and improvement of the level of achievement is the main objective of each athlete and coach through the correct numbers and built on the basis of scientific correct, leading to a quantum leap to a high level, in many sports movements and events depends on the high achievements achieved in specific technical stages should be taken care of and developed to the top A level and a possible level, for example in the jump and jump games track and field is the stage of upgrading is the main stage and planned for achievement, while in the payment and throwing games track and field is the stage of throwing or payment is the most important stage in these respects Or events. It is also the stage of pushing and upgrading from the important and major stages of many motor skills in various activities and sports. There are certain priorities for each activity in the proportions of interest by the coach or the percentages of the exercises used for each stage or sections of the movement technique or the performance of the skill of the movement, and the activities of the jump athletics the effectiveness of long jump with The technical stages are interrelated and are composed of (Rationalization - Upgrading - Aviation - Landing). Therefore, the trainer in the long jump must know the priorities of interest in these technical stages and focus on developing them to the best possible level. Therefore, these important stages must receive the necessary training to develop the most important ability to achieve achievement in these events. A long jump, for example, requires the ability of a man to advance in the shortest possible time and at a certain angle that requires the development and improvement of explosive thrust. We must develop and improve the power of the Force, the force or the explosive power (Explosive **Power or Strength** 

#### **Importance of study**

Therefore, the importance of the study in the preparation of horizontal and vertical divergent training exercises (Drop Jumps) in the development of explosive capability and some kinematic variables in long jump performance, level and achievement

#### Problem of the study:

Through most training programs for most jump and jump trainers, we observed most of the exercises for the development of muscle strength depends on weight and weights for the purpose of developing the level of achievement, as most exercises do not match the level of skill performance so the researchers saw the use of divergent jump and different methods deep jump (horizontal - Al-Amoudi) for the purpose of developing the muscular capacity of the muscles of the two men and their effect on some other physical characteristics that affect the achievement of the long jump as well as the effect of these exercises on the kinetic variables affecting the level of skill performance such as speed Oz -uzmn flight) when the performance of the skill yardstick to indicate the extent of the development of the explosive power of the two men as well as the ability of the rider in the recruitment of this effort to improve the level of achievement of digital.

#### **Purpose of the study:**

The researchers aim to identify:

1. The effect of divergent jump in the method of deep jump on the development of explosive capacity and some kinetic variables and achievement in the long jump

#### Study hypotheses:

The researchers hypothesized:

- 1. Jumping in a deep jump style positively affects the explosive ability of the muscles of the two men in the long jump.
- 2) The development of the explosive capacity of the two men using the varied jump in a deep jump technique positively affects some kinetic variables (horizontal velocity, flight time, jump distance) for long jump and achievement.

#### fields of study:

- 1 The human field: Diwaniya clubs in the long jump (8) and the athletes for the sports season 2015-2016.
- 2 Spatial field: the field of jumping in the field of the University of Qadisiyah and the closed hall in the Faculty of Physical Education
- 3. Time domain: from 1/10/2016 to 8/12/2016

Table (1)
The sample of the study

		THE Built	pic of the stu	<b>4</b> J
Torsion	standar	SMA	measruing	Basic variables
coefficien	d		unit	
t	deviatio			
	n			
1.42	0.54	18.22	For the	Age
			nearest	
			month	
0.41	2.83	172.33	Centimeter	Length
0.45	2.70	68.10	Kg	the weight
1.01	1.47	106.20	Centimeter	Lower tip length
1.05	10.57	225.45	Const.	T
			Centimeter	Long jump of constancy (cm).
0.75	3.71	48.58	Centimeter	The vertical jump of stability
			Centilitetei	.((cm
				.((CIII
0.28	0.39	11.45		
			meter	.(Five-right man's space (m
0.45	0.71	11.29		
	· · · · ·		meter	.(Five-legged left-footer (m
0.52	0.23	5.84		
0.32	0.23	3.04	meter	Achievement <sup>1</sup>

#### - Means, tools and devices used:

- Japanese electronic stopwatch number (2).
- Electronic computer type (pentum4) number (1).
- Tape measure metal class (50 m) number (1).
- Wooden shutters with different heights
- Different height barriers and boxes
- Long jump field
- Sanyo 3000 field / s camera.

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- Three-way stand for the camera used.

#### Physical tests

The researchers prepared physical capacity tests based on scientific sources in the field of sports training, testing and measurement, as follows:

- Test the enemy (30) m maximum speed from the start of the bird.
- Stability test.
- Test (5) wheels with right man
- Test (5) wheels with left man
- Long jump completion test

The scientific basis for the tests:

#### **Sincerity Tests:**

The objective of these tests was found after presenting them to a group of experts in the field of sports training. These experts agreed that the tests reflect the physical reality to be measured in this research.

#### **Stability tests:**

The stability factor was found in the re-test method as it was applied to a group of 3 players on 20/8/2013 and the tests were repeated after (7). The stability of these tests was found through a correlation between the tests and the results were presented in Table (2).

#### **Table (2):**

Shows the degrees of stability and self-confidence of the tests in the study sample

	Stability		
<b>Objectivity</b>	coefficient	The name of the test	n
0.93	0.88	ran 30 meters	1
0.94	0.89	Long jump	2
0.90	0.82	Test (5) Partition of the right man	3
0.92	0.85	A test (5) with a man in the left	4
0.92	0.87	Long jump test	

#### - Objectivity tests:

The objective of these tests was found using two arbitrators to record the results and the correlation between their results was found as in Table (2).

- Exploration Experience: -

The exploratory experiment was conducted on (1/10/2016) on (3) players for this purpose

- The working team knows the nature and time of the tests to accomplish their task.
- Ensure the validity of the camera and determine the appropriate place in the field of jump for photography.
- Organizing and controlling the imaging and motor analysis processes to determine the

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nature of the movement under study.

**Field experience:** 

- Tribal tests: -

The tribal tests were conducted on (2 - 3/10/2016) as follows:

- 1- The first day included:
- Test the enemy 30 m of the flying situation.
- Test five wheels with left man
- Test five wheels with a right man
- 2- The second day:
- Long jump test of stability
- Preparation of contestants for photography for the purpose of extracting the variables of the study of kinetics and achievement:

The researchers set up the contestants to capture and measure the digital level according to the following steps:

- 1. Bounce racers sportswear
- 2. Marking the anatomical points of the joints of the body in the shape of (X), from the white blister (viscous tape)

**Photography Attempts:** 

The researchers photographed three attempts for each contestant in the tribal measurement and three other attempts in the dimension measurement after the application of the program. The researcher chose the best attempt for each contestant in the tribal measurement as well as in the telemetry.

The following analysis was extracted:

- Flight time.

Horizontal speed is the moment of evolution.

Curriculum: \*

- The duration of the training program (8) week by (2) training units per week and a total of (16) training units, as the curriculum was implemented from 5/10/2016 to 6/12/2016.

- The training program aims to develop the explosive capacity of the two men using the various jumps as one of the modern methods used for the development of this capacity as shown in Annex (1)

- The exercises are performed at full speed, to ensure that the tolerance character does not interfere with the muscular ability.

(60% to 80%) of the maximum capacity of the rider for horizontal and vertical distances in those exercises and the number of groups (2-3) and the number of repeatations from (6-12) times with an active rest between the groups of (2) (3 - min) and between repetitions of (40-90) seconds.

- Program implementation time is between 50-60 minutes.

- Taking into account the principle of increasing intensity, through the maximum height of the wooden box for each contestant to be not exceeding the height of 100 cm

- Take into account the appropriate height measurement of the Fund every two weeks for both men and each man or for each individual man to determine the appropriate height for each individual for the next two weeks.

**Remote tests:** 

The post-tests were carried out on 8/12/2016 and over two days with the same procedure and sequence of tribal tests.

**Statistical processing:** 

**Use the SPSS Statistics Program to obtain:** 

- SMA.
- standard deviation.
- Correlation coefficient.
- Test of differences.
- Evolution rate

Correlation coefficient.

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### <u>Presentation and discussion of the results of study variables in the tribal and post-test and the rate of development</u>

Table (3), Shows the arithmetic mean and the standard deviation of the study variables in the tribal test

Torsion coefficient	standard deviation	SMA	Variables		
0.34	0.38	3.59	Running time 30 meters from the -		
			beginning of the bird		
0.05	10.57	225.45	(Long jump of constancy (cm -		
0.75	3.71	48.58	.(Vertical jump of stability (cm -		
0.28	0.39	11.45	.(Five-minute gap in the right man (m -		
0.45	0.71	11.29	.(Five minutes left-footed (m -		
0.34	0.001	0.56	(Flight Time (seconds		
0.87	0.13	7.97	Horizontal speed of the moment of -		
			(elevation (meters / sec		
0.52	0.23	5.84	(Digital level (m -		

Table (4), Shows the arithmetic mean and the standard deviation of the study variables in the variable post-test

Torsion	standard	SMA	Variables		
coefficient	deviation				
1.25	0.25	3.17	Running time 30 meters from the -		
			beginning of the bird		
0	4.84	258.00	(Long jump of constancy (cm		
0.11	3.33	67.25	(Vertical jump of stability (cm		
0.40	0.20	12.34	.(Five-minute gap in the right man (m		
0	0.16	12.25	.(Five minutes left-footed (m		
0.47	0.02	0.70	(Flight Time (seconds		
0.45	0.12	9.27	Horizontal speed of the moment of -		
			(elevation (meters / sec		
0.64	0.16	6.49	.(Digital level (m -		

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Table (5), Shows the significance of the differences between the average of the tribal measurements and the deviation of the variables of the study

t-test	Pos	Post -test		-test	
	standar d deviatio n	SMA	standard deviatio n	SMA	Variables
4.64	0.25	3.17	0.38	3.59	Running time 30 meters from the beginning of the bird
9.43	4.84	258.00	10.57	225.45	(Long jump of constancy (cm
5.62	3.33	67.25	3.71	48.58	(Vertical jump of stability (cm
12.47	0.20	12.24	0.39	11.45	.(Five-minute gap in the right man (m
18.90	0.16	12.35	0.71	11.29	.(Five minutes left-footed (m
5.35	0.12	0.70	0.41	0.56	(Flight Time (seconds
6.36	0.17	9.25	0.23	7.97	Horizontal speed of the moment of elevation ((meters / sec
11.02	0.16	6.42	0.28	5.84	.(Digital level (m -

#### \* The value of (t) tabular at 0.05 = 2.36

Table(6) The percentage of the development of the mean and the standard deviation between the two tests and the deviation of the variables of the study

standard deviation	SMA	Variables
-34.2	11.69	Running time 30 meters from (%) the beginning of the bird
-54.21	14.45	Long jump of stability(%)
-10.24	38.43	The vertical jump of stability(%)
-48.71	6.89	Five-point margin in right-hand man (%)
-77.46	9.38	(%) Five-point margin in the left man
-26.08	16.06	Flight time(%)
-42.85	9.93	Horizontal speed moment of elevation .(%)
-34.2	11.69	Digital level.(%)

Table (7), The correlation coefficient between the variables of the study and the numerical levelIn the long jump competition

error coefficient	Variable
*0.79-	Time of 30 meters of starting flight
*0.78	Long jump of stability
*0.78	The vertical jump
*0.80	A five-point distance from the
	right-hand man of stability
*0.77	point left-hand margin of stability
*0.71	Flight Time
*0.75	Horizontal Speed

#### DISCUSSION OF RESULTS

It is clear from Table (5-6) that there are statistically significant differences between the tribal and remote measurements in the study variables (30 meters from the beginning of the bird and the vertical jump and the long jump of stability and the distance of five wheels with the right man and the left man of stability and achievement) On the effectiveness of the codification of the exercises used to improve the motor and skill abilities in the long jump distance, in addition to kinetic variables. These results are consistent with what George Dunn (1999) pointed out that there are many types of retraining training confined to the wheels and bounds on the barriers, The development of the explosive capacity of the two men and give high results and response and this is evidenced by the test of the vertical jump and long jump and test the enemy.

#### - Discuss the results of the jump of stability:

The results of the jump test from the stability in the table, which is the test of the rapid ability of the two men, showed that there are significant differences between the pre-test and the post-test and the benefit of the post-test. This is due to the training method used by the researchers in these exercises for the purpose of developing the fast force scientifically according to the requirements of these exercises Had the effect in stimulating muscle groups working, which led to the improvement of performance economically and in less time, and as a result, the strength of the muscles of the article and the second of the two men in the horizontal and vertical direction, which led to a better achievement, "The development of the strength of the muscles of the two men to the athlete leads to the development of the strength of the muscles of the thigh and leg and thus give the strength and agility of the player." The exercises used in the style of jump (vertical - horizontal) have a clear impact in the development of the rapid strength of the muscles of the two men, To develop the work of the nervous system - muscle to respond more strongly and faster during the performance of movements requires a range of muscle followed directly directly in the muscle itself. In general, the training used is a successful training tool for the development and development of the rapid force for its active contribution in stimulating the work of muscle fiber for rapid action.

- Discussing the test results of the five-part left-right man:

The results were significant between the tribal and remote tests and for the benefit of the post for the different training in deep jump, whether horizontal or vertical, which led to the development of rapid power effectively and through the speed of performance of the cells due to the work of the contraction of the muscles working through the effective muscle matrix, Allawi, Abul-Ela Abdel-Fattah) that "the ability of muscle laxity contribute to increase the speed of motor performance of the exercises used" and the deep jump exercises are consensual exercises between the arms and legs, which positively affected the level of performance of the calves carried out by members of the group "This is consistent with what Muhammad Reza and Akherun (1988) concluded, "Deep jump exercises help to learn the compatibility between arms and legs movement and improve"

- Discussion of the selection of running 30 meters (maximum speed)

The results were significant between the tribal and remote tests in the maximum speed and in favor of the dimension as in Table (5) to use the various jump training and deep jump technique, as the speed of the speed has improved, which contributed to the development of muscle strength of the two men and thus improved the level of jogging where he (Mohamed Osman, 1990 ) That there is a significant correlation between the elements of speed and strength, as the muscle or muscle group can not contract quickly unless it has enough strength for such performance. "Since speed training depends on the first system and depends on the stored energy and existing and free muscle (ATP - PC) ), So jump off Type jogging user depends on this system, which led to the development of extra power and speed and explosive, which are considered important in the workforce in the fast sprinting muscles.

Sharkey (1990) points out that "the various jumps that have increased the explosive capacity of the two men, especially in the jumping competitions," where the results of the research indicated that the training is a powerful and effective way to improve the strength and speed of movement, allowing the nervous system to alert the largest number of The muscular fibers and improve the constriction sequence, which contributes to the production of greater strength, and adds that this type of training has become common in Europe and America. It is clear from the above that the use of divergent jump is an effective factor in the long jump competition, which requires the work to integrate the maximum strength of muscles with the maximum speed of performance to achieve a high degree of ability to performance, especially if the explosive capacity of the two men is one of the qualities required development.

- Discussion of the results of kinetic variables:

The results showed a significant difference between the tribal and remote tests in the results of kinematic variables and in favor of the dimension, as in Table (5). When looking at the variable "horizontal speed of the moment of elevation", the rider is trying to achieve the highest vertical height possible so that he can get to the highest point This is governed by two basic variables: horizontal velocity and momentum, from which the rider moves from the ground to achieve the flying stage. This development is the result of the varied jump and its methods (deep horizontal and vertical jump) and similar to the long jump style. "The increase in the long jump distance is determined by three basic elements: horizontal velocity, vertical velocity and height of the center of the body weight during the lift, which is affected by the moving force resulting from the lift. "As for the variable (flight time), the differences were significant between the tribal and the remote and for the benefit

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of the distance as a result of the various exercises from the exercises jumping up and down to the bottom of the boxes of different height, which led to the development of aviation time, as we see" the more difference between leaving The ground and landing increased the flight time of the player to move his body in different situations suitable for movement such as walking or hanging in the air and thus increased the chance of movement under the influence of the horizontal vehicle of speed, increasing the additional horizontal distance achieved by the level of departure, "This is confirmed by Talha Hossam Eddin and Wafa Salah Din et al. (1998). "The test of the training method depends on the diagnosis and characterization of the skilled performance, a precise description that determines the role of muscle strength as a basic basic variable in this performance and the method of strength training for performance based on kinetic and dynamic characteristics of skill performance as a basic basis for selecting the training method and Where the shape or in terms of resistors and the pace of performance and the number of repetitions and other technical specifications for the construction of specialized training.

The researcher considers that the identification of the results of the development of the explosive capacity of the muscles of the two men using the usual physical tests may not give sufficient indication of the possibility of the contestant to employ this physical development in the performance of the competition, so it can be used some mechanical indications that reflect the development of performance level (horizontal speed - Vertical - flight time) in the performance of skill as a sign to indicate the development of the explosive capacity of the two men as well as the ability of the contestant to employ this effort to improve the level of digital achievement.

#### **CONCLUSION**

Through the results, the researchers concluded:

- The varied jump in the style of deep jump (horizontal vertical) had a significant impact on the development of muscular capacity of the two men.
- The divergent jump in the style of deep jump (horizontal vertical) had a significant impact on the development of variables (speed, flight time and horizontal speed), which led to the development of the level of achievement
- Different types of jumps of performance influenced the variables of study in the development of achievement

#### **Recommendations**

#### **Researchers recommend:**

- 1 the need to use the various jump and different jumping methods in the jump and jump
- 2 the need to use the various jump and different jump methods in the events of rapid water and that requires the strength and speed
- 3 the need to use the various jump and different jump methods in the activities of the need to use the various jump and different jump methods in the events of the Games (basketball, plane, hand and foot)

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### Holistic Approach to Fitness and Wellness – A way of Life

#### By

G.Shyam Mohan Reddy Associate Professor, Dept of Physical Education Chaitanya Bharathi Institute of Technology, Hyderabad Abstract

Health is a dynamic process because it is always changing. As our lifestyles change, so does our level of health. Holistic emphasizes the importance of the whole and the interdependence of its parts. It is the recognition that what affects one part or system affects the whole body. A holistic approach to health is multi-faceted and mindful of the consequences of our habits and actions. We strive toward an optimal state of well-being. Wellness is the search for enhanced quality of life, personal growth, and potential through positive lifestyle behaviors and attitudes. It is a well-balanced blend of physical, mental, and even spiritual well-being that results in living the highest quality of life possible. Fitness is defined as the quality of being suitable to perform a particular task. Modern definition of fitness describes either a person or machine's ability to perform a specific function or a holistic definition of human adaptability to cope with various situations. We should distinguish among physical activities for health, fitness and performance. In this technological age, health care paradoxes abound. Computerization, designed to facilitate daily life, carries with it a demand to be externally connected to events at all times. In doing so, paradoxically, we become alienated from reflecting personally upon body, mind and spirit. Use of pharmacological medication can assuage some of our symptoms, but this approach can also mean that we can carry on as normal with our busy lives, reducing our ability to monitor and focus on our personal health and wellbeing. The harder you work, the more committed you are, the greater the reward. Fitness is not a hobby and destination but it's a way of life.

**Key words**: Health, wellbeing, Fitness, Performance

#### INTRODUCTION

Health is a dynamic process because it is always changing. As our lifestyles change, so does our level of health. Health is the level of functional or <u>metabolic</u> efficiency of a living organism. In <u>humans</u> it is the ability of individuals or communities to adapt and self-manage when facing physical, mental or social challenges. The three interdependent fields to determine the health status of an individual are:

- Lifestyle: the aggregation of personal decisions that can be said to contribute to, or cause, illness or death;
- Environmental: all matters related to health external to the <u>human body</u> and over which the individual has little or no control;
- Biomedical: all aspects of health, physical and mental, developed within the human body as influenced by genetic make-up.

Holistic emphasizes the importance of the whole and the interdependence of its parts. It is the recognition that what affects one part or system affects the whole body. A holistic approach to health is multi-faceted and mindful of the consequences of our habits and actions. We strive toward an optimal state of well-being. Wellness is the search for enhanced quality of life, personal growth, and potential through positive lifestyle behaviors and attitudes. It is a well-balanced blend of physical, mental, and even spiritual well-being that results in living the highest quality of life possible.

Fitness is defined as the quality of being suitable to perform a particular task. Modern definition of fitness describes either a person or machine's ability to perform a specific function or a holistic definition of human adaptability to cope with various situations. We should distinguish among physical activities for health, fitness and performance. Fitness offers us confidence, self-motivation and readiness. It sharpens our minds, elevates our mood and reduces our stress. When well attended to, fitness becomes a helpful tool in facing tough challenges of everyday life. However, when we neglect our fitness, such challenges can diminish us. Fitness is attributed to personnel who possess significant aerobic or anaerobic ability, i.e. strength or endurance. fitness include strength, endurance, power, speed, balance and coordination and being able to improve the amount of work done in a given time. This is often presented in a triangle made up of physical, emotional, and mental fitness. Physical fitness can also prevent or treat many chronic health conditions brought on by unhealthy lifestyle or aging.

Developing research has demonstrated that many of the benefits of exercise are mediated through the role of skeletal muscle as an endocrine organ. That is, contracting muscles release multiple substances known as <u>myokines</u> which promote the growth of new tissue, tissue repair, and various anti-inflammatory functions, which in turn reduce the risk of developing various inflammatory diseases. With automation and changes in lifestyles *physical fitness* is now considered a measure of the body's ability to function efficiently and effectively in work and leisure activities, to be <u>healthy</u>, to resist <u>hypokinetic diseases</u>, and to meet emergency situations.

Regular physical activity is one of the most important things that we can do for our health. Avoiding being inactive is a significant one and mostly moderate-intensity aerobic activity like brisk walking etc is advisable, which is safe for most of the people. Everyone can gain health benefits by physical activity by not preferring to age, ethnicity, shape or size.

Wellness is generally used to mean a <u>healthy</u> balance of the mind, body and spirit that results in an overall feeling of <u>well-being</u>. Wellness is a direction in progress toward an everhigher potential of functioning. Wellness grew as a popular concept starting in the 19th century, just as the middle class began emerging in the industrialized world, and a time when a newly prosperous public had the time and the resources to pursue wellness and other forms of <u>self-</u>

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<u>improvement</u>. Wellness is an active process of becoming aware of and making choices toward a healthy and fulfilling life. Wellness is more than being free from illness; it is a dynamic process of change and growth.

Maintaining an optimal level of wellness is absolutely crucial to live a higher quality life. Wellness matters. Wellness matters because everything we do and every emotion we feel relates to our well-being. In turn, our well-being directly affects our actions and emotions. It's an ongoing circle. Therefore, it is important for everyone to achieve optimal wellness in order to subdue stress, reduce the risk of illness and ensure positive interactions. There are eight dimensions of wellness: occupational, emotional, spiritual, environmental, financial, physical, social, and intellectual. Each dimension of wellness is interrelated with another. Each dimension is equally vital in the pursuit of optimum health. One can reach an optimal level of wellness by understanding how to maintain and optimize each of the dimensions of wellness.

It's important knowledge for us to realize health and wellness by including the above. To overcome the problems the people must keep them engaged in the holistic work, fitness program, community services, participation in games and sports, leisure time activities etc. In this technological age, health care paradoxes abound. Computerization, designed to facilitate daily life, carries with it a demand to be externally connected to events at all times. In doing so, paradoxically, we become alienated from reflecting personally upon body, mind and spirit. Use of pharmacological medication can assuage some of our symptoms, but this approach can also mean that we can carry on as normal with our busy lives, reducing our ability to monitor and focus on our personal health and wellbeing. The harder you work, the more committed you are, the greater the reward. Fitness is not a hobby and destination but it's a way of life.

Understanding the relationship between your body's physical health and mental health is crucial in order to develop a balanced physical wellness. When you take the route to physical wellness you will learn to understand how your body performs physically and are able to connect it to how you feel mentally. Physical wellness encourages principles of good health and knowledge, which affect behavior patterns that lead to a healthy lifestyle. Below are a few suggestions for you to practice to maintain an optimal level of physical wellness.

#### **CONCLUSION**

- 1. Exercises should be both aerobic and muscle forming.
- 2. Eat a variety of healthy foods and control your meal portions.
- 3. Dieting is a life time commitment and not done crash basis.
- 4. For optimal wellness subdue stress, reduce the risk of illness and ensure positive interactions.

5. The harder you work, the more committed you are, the greater the reward. Fitness is not a hobby and destination but it's a way of life.

#### RECOMMENDATIONS

- 1. Learn to recognize warning signs when your body begins feeling ill.
- 2. Engage in <u>physical activity everyday for 30 minutes</u>. You may break up your daily 30 minutes into 10 minutes bouts.
- 3. Maintain a regular sleep schedule and get between 7-9 hours of sleep each night.
- 4. For specific dietary requirements for gas, acidity, constipation, HBP, diabetes, anaemia, gout etc-refer to your health counselor.
- 5. Manage the weight by the combination of diet and exercise.

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# Which physical quality reflects the decline in wheelchair basketball via Algerian Players?

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#### **Abstract**

The researchers seek to identify the physical quality reflects the decline in wheelchair basketball via Algerian Players. To archive this object our sample was selected by the intended manner including 20 players. Tested based on endurance test, Speed test (20 m), pushes the medical ball and dribbling as a test of agility. After statistically processing, it was clear that Strength is the physical quality that reflects the decline of our player wheelchair basketball.

**Keywords:** physical quality, physical performance, wheelchair basketball players.

Which requires a high degree of skill, technical expertise, and teamwork.

#### INTRODUCTION

Wheelchair basketball is one of the most popular sports among the Paralympic disciplines and is practised by people with different disabilities, according to the classification protocol of the International. It's individual practised request the combines of repeated high-intensity sprints and rapid accelerations and decelerations with moderate and low-intensity actions, with the purpose, among other aims, of achieving or maintaining a good position on the court (Molik B, 2010) While as ateamgame, it requests the combines of the efforts of all the participants (Brasile, 1996).

Into the acceleration, speed, and agility are of particular importance since the game is often played at a fast pace and excellent chair and ball skills are fundamental to the game.

Althoughasuperior, level of conditioning is required to maintain work intensity and to prevent injury (Goosey-Tolfrey, 2002). As demand to reach competitive levels, which rely on the development of the basic skills related to the game (Malone. L, 2000).

Moreover, strength is the predominance (Green, 1999) physical quality followed by endurance, flexibility and speed. Through the above, the present study sought to identify the physical quality reflects the decline in wheelchair basketball via Algerian Players. Agreed in similar in

In resistance as addition performance of all basic skills related to the explosive power (Baroni, 1994). Admit by **Kestutis Skucas (2012) in the development physical skills** (Skucas, 2012)

via the upper-extremity muscle strength as important physical quality for wheelchair athletes.

Revoked by the similar in the needof Strength asimplementing additional specific training sessions to improve these abilities in wheelchair basketball players (Aitor Iturricastillo, 2015), to achieve high results have not been researched much.

#### **Methods and means**

#### **Methodology:**

Researchers used the descriptive method by testing the elite players of Aïn témouchent team Oran liege (Algeria), at the sports season 2016/2017.

#### **Participants**

Twenty male wheelchair basketball athletes from two different clubs in the same league (national league) participated in the study. Their mean age was 30 years and their mean competitive

experience was 6.7 years.

#### **Specifications of physical tests:**

Test (01): endurance test (1000 m)

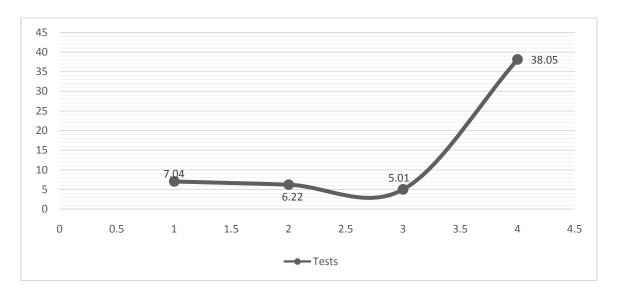
Test (02): speed test (20 m)

Test (03): test pushthe medical ball by hands (3 kg)

Test (03):test the dribbling between the obstacles

#### View and analyse results:

Fig (1) Showing the difference in the level of components of physical characteristics



#### **Comparison of dimensional results**

Table (01): Compare the results of total simple in the tests proposed

	N=	20	T	Significant
Tests	means	SD	Calculated	
Endurance	7 .04	0.82	1.44	No Significant
Speed	6.22	0.7	2.00	No Significant
Strength	5.01	0.81	2.4*	Significant
Agility	38.05	2.8	1.10	No Significant

T tabular = 2.10, p=0.05

To esteem, the physical quality reflects the decline in wheelchair basketball via Algerian Players. We use the simple t-test, which is not significant in Endurance, Speed, Agility in the opposite of Strength. Shown in Figure One as a difference in the growth of measured fitness elements.

#### DISCUSSION

Depending on the statistically processing, it was clear that Strength as physical quality reflects the decline in wheelchair basketball via Algerian Players. Where those results provetheoutcomes proved by Kelley & Freiden (1980) and Knechtle & Köpfli(2001) that the benefits training program for persons with disabilities should comprise the progression of the five major physical abilities which are endurance, flexibility (Kelley, 1980), (Knechtle, 2001). Coordination, strength, and speed. In the opposite of Kestutis Skucas (2012) which setthe

resistance as quality physical qualitative the intensity of loads work, that is a very important feature in wheelchair basketball. Confirmed by Gibbons &Bushakra (1989) in individual improvement physical fitness. Esteem by Davis & Sherrill (2004) in intensively training include actions carried out with force and speed.(Skucas, 2012), (Davis, 2004).

Our results are in conformity with the judgment provides by Goosey-Tolfrey.V (2010) that wheelchair basketball is a physically demanding team sport that requires a high degree of acceleration, speed, and agility corporatetoStrength as referencephysical quality to maintain work intensity and to prevent injury(Goosey-Tolfrey, V, 2010) (Yanci, J, 2015).

#### **CONCLUSION**

Researchers suggest that the strength Handicapped our basketball players to archive the best result in a different champion. Where its decline is correlated to skeletal muscle mass, strength, power and physical. Approved in similar as strengthtraining program that leads to increased muscle strength and endurance, muscle tone, tendon and ligament strength, and bone density—all of which help to improve and maintain everyday functional physical capacity.

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# The reflection physical education and sports on configuration self- physical in adolescents

Zahaf Mohamed ISTAPS. University of m'sila .Algeria Abstract

This study aims to identify the reflections of physical and sports education on self- physical configuration when adolescents in secondary education, To adopt policies that promote the positive aspects and correct the negative aspects, and is working to develop and refine the educational, psychological and physical aspects of a student's life, To achieve this, the researcher used the descriptive approach on a random sample, consisting of 150 pupils (male and female) from some the secondary school in the municipality of El Harrouch in mandate of Skikda. Algeria. And applied on them scale self physical and reach a existence reflected positively in physical education and sports on self- physical configuration when adolescents, And the existence of differences between practitioners and non-practitioners in favour of practitioners in physical self-configuration, And the lack of sex differences in physical self-configuration

Keywords: Physical education and sports, self- physical, adolescents

#### INTRODUCTION

Physical education and sports is one of the branches of Basic Education, which derives its theories from other sciences through physical activity, so it works just like any other materials on the development of an individual's personality and the crystallization, all-round mobility, psychological and social, Relying on locomotor activity, which distinguishes it, and which takes a range of physical and sports activities as a pillar of cultural, social. And the individual adolescent needs this setting is more than ever before because it helps him in the same understanding and giving him by acquiring behaviors together, In the adapting in line with the needs of the community in which he lives. In addition, studies have too long ago proved that physical education contribute not only to a healthy body, but reducing also in social and mental health by anxiety stress and We try in this study focus on the self-physical configuration when adolescents in secondary education and the reflection of physical education and sports, because of its importance in the revitalization and success of the educational process, and achievement of a comprehensive and balanced growth of the individual physically, psychologically and socially. It is certain that the educational institutions As secondary working to develop and refine the educational, psychological and physical aspects of a student's life through share physical education and sports, And those aspects with regard to the psychological situation which plays an important role in many of the situations faced by the pupil from time to time, whether inside or outside the school, And highlight pupil adolescent need special physical self in the share of physical education and sports self-understanding, Where pupil finds himself among his colleagues of both sexes and worth doing in these situations that balances the psychological state has and attitudes required by the share, especially since secondary level pupil is still suffering the repercussions of adolescence.

#### 1. Problem Statement

The share of physical education and sports are important educational tools are considered to achieve the objectives underlined in the formation of the individual, as the physical movements carried out by the individual in his life on the educational level of the simple in the formal

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framework and structured working on the improvement and development of the body and its components in all aspects to ensure the formation of the individual and its development and compatibility with community (Mohamed Awed Bassiouni, et all. 1992, 94).

In recent times have shown the educational institutions great interest in to teach physical education and sports because of its great importance to the pupil secondary phase, which is considered for him teenager motive limit and positive development in the psychological aspects, And through them finds pupil himself or the himself physical through a movement and sports skills performed by One various physical and sports activities, and it can pupil through which also reaches a certain level of adaptation and emotional stability and self.

And self-physical is a perception pupil of the strengths and weaknesses of the adequacy of the physical and this trait show through perception pupil its level of physical during an activity Physical Education and Sports with his colleagues, as the pupil has perceptions about the appearance of his body and his power, competence and fitness, Many of the studies also confirmed such a study (julien chanal,2005), the effect of the share of physical education and sports in the formation of self-concept, level of athletic performance good affect in higher self-configuration, and the high self-performance has the effect of raising the self-formation level and vice Configuration , as the low level of performance had the effect of reducing the self-formation and the formation of low self-impact performance in the level of prosecution, regardless of the sex of pupils participants.

In this regard, The physical education session are considered emotional activities, And which emerge many competitive situations that may affect the student's personality, Which may constitute a psychological burden about the of self-physics in terms of both Exterior body or confidence in situations sporting that require learning mobility skills.

In this trend has been the exposure in this study of the implications of physical education and sports configuration physical self when some adolescents in secondary school in mandate of Skikda, Algeria . in order to detect the importance of this activities and its ability to successfully anticipate the individual's configuration physical self

#### 2. Research Questions

Is physical education and sports are reflected on physical self-configuration when adolescents in secondary education?

Sub-The problems of the following:

- 1- Are there significant differences between adolescents in configuration physical self among practitioners and non-practitioners of physical activity and sports in secondary education?
- 2- Are there significant differences between sex in the physical self configuration in adolescents in physical education and sports in secondary education?

#### 3-1- Research hypotheses:

**General hypothesis :** Physical education and sports a positive reflection on the physical self configuration when adolescents in secondary education

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#### Partial hypotheses:

- 1- There are significant differences between adolescents in configuration physical self among practitioners and non-practitioners of physical activity and sports in secondary education.
- 2- There are significant differences between sex in the physical self configuration in adolescents in physical education and sports in secondary education.

#### 3. Purpose of the Study

Purpose of this study to know the reflections of physical education and sports in configuration physical self in adolescents in secondary education and through:

- -To identify the differences between adolescents in configuration physical self among practitioners and non-practitioners of physical activity and sports in secondary education phase.
- -Detection of gender differences in configuration physical self in adolescents in physical education and sport in the secondary education phase.

#### 3.1. The Study terms:

**Physical Education and Sports:** Educational material depends on the physical and sports activities practicing in educational institutions of all stages in order to achieve the educational goals. Which are made under the educational supervision. (Mahmoud Awad Bassiouni and others: 1992.94).

**self- physical:** Is a person evaluate for himself all in terms of its appearance and abilities, trends, and his feelings and means, so that the concept of self-directed behavior becomes when it reaches its peak these things (Ahmad Zahir Qahtan: 2004.116). We mean, the shape of one's body and as it is and as perceived looks to others, and in the study divides the physical self to: external appearance of the body (body attractive), physical force, fitness (Physical condition), Sports efficiency, Self-value Physical (Saadi Zerrougui Yusuf 2009.25).

**adolescents:** Is the phase transition of the individual from childhood to adulthood is an important period in the life of the individual begins of puberty in both sexes, about 12 years old and ends when the individual becomes an adult in about 19 to 21 years, and they vary by geographic regions and by gender, socio-economic and cultural environment in which he talked a group of big shifts and fast in the physical and physiological aspects (Ali Zaghdoud: 1989, 185)

#### **METHOD**

The use of a researcher in this study descriptive method through which we identify the nature and characteristics of some phenomena designated to analyze relationships between different variables, trying so measured in a quantitative manner and in its template and style statistical aiming through it to draw conclusions topic and predictions by various phenomena. (el ali Wahid Wafi).

**3.2. The study sample:** he study sample: the sample was selected simple random method, and consists of 150 male and female pupils (15-18 year), where the number of practitioners 135 and non-practitioners of 15 secondary schools Abdul Rahman Kawakibi, Zighoud Youcef el harrouche in mandate of Skikda more than 11% of the study population.

#### 3.3. Research sample characteristics:

• **sex variable:** Schedule (1) shows the distribution of the sample sex variable.

Sex	Repetition	percentage (%)
Male	75	50
Female	75	50
TOTAL	150	100

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The table shows the distribution of the sample by sex variable, as the number of males(75) with repetition percentage (50%), and the number of females (75) with repetition percentages

• **- educational level variable:** Schedule (2) shows the distribution of the sample by educational level variable.

Educational level	Repetition	Percentage (%)
first secondary	48	32
Second secondary	51	34
Third secondary	51	34
TOTAL	150	100

The table shows the distribution of the sample by educational level variable and largest percentage recorded in total recorded evenly among each of Second secondary and Third secondary (51) by an estimated 34%, while first secondary(48) by an estimated (32%).

**- Practice variable:** Schedule (3) shows the distribution of the sample by practice variable.

Practice	Repetition	Percentage (%)
Practitioners	135	90
Non-practitioners	15	10
TOTAL	150	100

The table shows the distribution of the sample by practice variable, as the number of Practitioners (135) with repetition percentage (90%), and the number of Non-practitioners (15) with repetition percentages (10%).

#### 5.3. The Study Tool:

We

have adopted in this study to collect data and information on physical self scale.

- physical self scale: For physical self-knowledge of individuals the sample, The researcher on them physical self scale. This measure and put it in the original "Kenneth Fox" (1990), And the rate on the Spanish environment by (sicilia, Gutieerrez, Morino) in 1999, and Prepared Arab image by Mohamed Hassan Allawi, and The scale consists of 30 phrases, It aims to measure the five dimensions, namely: external appearance of the body (body condition), Sports efficiency, Self-value Physical. There are six attractive), physical force, fitness (Physical phrases for each dimension, three of which describe the dimension in a positive way, and three other describe in a negative way. Screened by choosing one commensurate with his concept of himself and the physical self and then determines how it applies to status and whether they fully apply to it or apply it to some extent

#### **FINDINGS**

3.4. A table (4) showing the results of gender differences in physical self in adolescents in physical education and sports of secondary education.

Variable	Sex	Sample volume	Arithmeti c average	standard deviation	T Calculate d	Degree of freedom	SIG	Statistical significan ce
external	Male	75	2,6867	,619360				There are
appearance	Female	75	2,9733	,480900	3,166	148	,0020	difference
of the body	S							S
physical	Male	75	2,7067	,691450				No
force	Female	75	2,8667	,402690	1,732	148	,0850	difference
	S							
	Male	75	2,9667	,522040		1.10		No
Fitness	Female	75	2,9200	,479580	,5700	148	,5690	difference
	S							

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Sports	Male	75	3,2533	,585330				No
efficiency	Female s	75	3,0933	,676300	1,549	148	,1230	difference
Self-value	Male	75	3,0400	,577900				There are
Physical	Female s	75	3,3133	,568150	2,921	148	,0040	difference s
Self	Male	75	2,9307	,473340				N
physical compositio n	Female s	75	3,0333	,388230	1,452	148	,1490	No difference
	alue T: 1.9	78 at the s	significance	level 0.05, and	d the degree	of freedo	m of 148	<b>3.</b>

By schedule note that the value of T calculated external appearance of the body (3166), the largest of the T spreadsheet at a Degree of freedom (148) level (0.05) and thus no statistically significant differences between sex in the body attractive in adolescents.

As for the physical force: the calculated value of T (1.732) which is less than T tabular at a Degree of freedom (148) level (0.05) and thus there are no significant differences between sex in the physical force differences among adolescents. For the fitness: the value of the calculated T (0.570) which is less than T tabular at a Degree of freedom (148) level (0.05) and thus there are no significant differences between sex in fitness among adolescents differences and the Sports efficiency: the calculated value of T (1.549) which is less than T tabular at a Degree of freedom (148) level (0.05) and thus there are no significant differences between sex in sports efficiency of adolescents in physical education and sports. As for the Self-value Physical: the calculated value of T (2921), the largest of the T tabular at a Degree of freedom (148) level (0.05) and thus no statistically significant differences between sex in the physical self to the body of adolescents in physical education. Overall, we find the Self physical composition (total) value of T calculated (1.452) which is less than T tabular when the degree of freedom (148) level (0.05) and thus there are no significant differences between sex in Self physical composition among adolescents in physical education and sports phase secondary education. And in the following dimensions: physical force, fitness and sports efficiency. These results denies the validity of the hypothesis that there are significant differences between sex in the physical self composition in adolescents in the share of physical education and sports. And the existence of differences between males and females in the following dimensions: the external appearance of the body and the value of the physical self in favor of females. This is due to the great value given to the body by females compared with males and give it great importance to the value of self-physical as general feelings of happiness and satisfaction and pride, respect and confidence in the physical self, where we find when female high compared to males they are always seeking to achieve confidence, happiness and respect and be with the appearance of my body Attractive. These results keep pace with the Wahaibi study (1999), where he reached with regard to sex to a lack of statistically significant differences in seven dimensions, while differences in dimension personal self emerged in favor of females in the social self in favor of males. While the study (Morino, Cervello, Vera, Ruiz) found a statistically significant differences between males and females in the dimensions of sports efficiency and attractiveness of the body and muscle strength and self-confidence.

3.5. Table (5) shows the results of the differences between practitioners and non-practitioners in physical self-formation in adolescents in physical education and sports of secondary education.

Variable	Practitio ners and non- practition ers	Sample volume	Arithmetic average	standard deviation	T Calculate d	Degree of freedom	SIG	Statistical significanc e
external appearance of the body	Practitione r non- practitione r	135 15	2,8951 2,2444	,541300 ,507350	4,442	148	,0000	There are differences
physical force	Practitione r non- practitione r	135 15	2,8383 2,3222	,494980	3,448	148	,0010	There are differences
Fitness	Practitione r non- practitione r	135 15	2,9704 2,7000	,500770 ,437340	2,006	148	,0470	There are differences
Sports efficiency	Practitione r non- practitione r	135 15	3,2086 2,8556	,623520 ,675140	2,064	148	,0410	There are differences
Self-value Physical	Practitione r non- practitione r	135 15	3,2284 2,7111	,553050 ,697120	3,345	148	,0010	There are differences
Self physical compositio n	Practitione r non- practitione r	135	3,0281 2,5667 at the signific	,391510	4,105	148	,0000	There are differences

Through a schedule note that T calculated external appearance of the body (4, 442) the largest of the T spreadsheet when the degree of freedom (148) level (0.05) and thus There were significant statistical differences between practitioners and non-practitioners in the outer appearance of the body of adolescents in physical education and sports to the stage high school. As for the **physical force** value of **T** calculated (3,448), the largest of the **T** spreadsheet when the degree of freedom (148) level (0.05) and thus There were significant statistical differences between practitioners and non-practitioners in physical force among adolescents in physical education and sports to the stage of secondary education. As for the fitness value of T calculated (2,006) the largest of the T spreadsheet when the degree of freedom (148) level (0.05) and thus There were significant statistical differences between practitioners and non-practitioners in fitness among adolescents in physical education and sports, and the **Sports** efficiency: the calculated value of T (2,064) which is less than T tabular at a Degree of freedom (148) level (0.05) and thus There were significant statistical differences between practitioners and non-practitioners in Sports efficiency among adolescents in physical education and sports to the stage of secondary education. As for the Selfvalue Physical value of T calculated (3,345), the largest of the T spreadsheet when the degree of freedom (148) level (0.05) and thus There were significant statistical differences between practitioners and non-practitioners in Self-value Physical among adolescents in physical education and sports to the stage of secondary education. Overall,

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we find the Self physical composition (total) value of T calculated (4,105) the largest of the T spreadsheet when the degree of freedom (148) level (0.05) and thus There were significant statistical differences between practitioners and non-practitioners in Self physical composition among adolescents in physical education and sports to the stage of secondary education.

These results confirm the hypothesis that there are significant differences between adolescents in physical self formation among practitioners and non-practitioners of physical activity and sports in secondary education. This is due to that whenever the individual practitioner of physical activity and sport whenever physical self his formation positively and the contrary to the non-practicing physical activity and sports, we find self-physical composition of them negative, these results confirmed by the study of each of (Morino, Cervello, Vera, Ruiz) 2007, where he reached the existence of differences between practitioners and non-practitioners of physical activity and sports in all the dimensions of the scale. The compatibility study (Morino, Cervello) 2005, which concluded that male and female practitioners of physical activity and sports have had a high degree of physical self- comparison with males and females who do not practice physical activity and sports.

#### **CONCLUSION**

We conclude from our study of the subject that they share physical education and sports a positive reflection on the self-physical composition of adolescents in secondary education, Where that physical education and sports are considered an important means of the educational means to achieve the objectives underlined in the formation of the individual to himself, So that the physical movements carried out by the individual in his life on the educational level of the simple in the formal framework and structure is based on the organization and the improvement and development of this body and its components from all mental and psychological aspects, social, moral and health to ensure the formation of the individual, development and harmony in his community and his country.

As it turns out, the existence of significant statistical differences between adolescents in self-physical composition between practitioners and non-practitioners of physical activity and sports in secondary education, and this for the benefit of practitioners in all measure dimensions (physical force, fitness, sports competence, the Exterior body and the value of self-physical). This is due to that whenever the individual practitioner of physical activity and sport whenever physical self his formation positively and contrary to the non-practicing physical activity and sports, we find self-physical composition of them negative. This is due to the physical education and sports program of applied educational system, and learning objectives and procedural, as well as teaching methods in place that facilitate the pupils to understand and absorb the essence of physical and sports activities on various aspects of personal teenager. We also concluded that there is no statistically significant difference between males and females in the physical self in adolescents in physical education and sports, Than it showing us that physical self formation is influenced by a factor of sports practice and is not affected by a factor of sex.

Pupils like other individuals stemmed physical self to their emotional and unconscious sources and represents an essential component in the formation of themselves, It is a mental image formed by an individual for his body, both in its external appearance or internal components or various of its members and its ability to recruit these members and prove its efficiency, And on physical education and sport reinforced and directed

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# The sense of the ocean and its ability to relate to the performance of some skills Futsal players have a team of the Faculty of Physical Education

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#### **Definition of research**

Tests are the real entrance to identify the level of individuals and their location and beyond the launch of sentences and without tests can not stand on the level of real players and the development of training programs codified them and football is the first game in terms of popularity and fame around the world and the beauty of this game lies in the basic skills performed by The players in different situations and the assessment of the speed and distance of the players are important things that the player must understand and understand and apply during the game where (**estimate the distance**) and the speed of the colleague and the opponent is important to be a player of five football As well as the location and speed of the ball (**estimate time**) both in the receipt and delivery by kicking the ball power level (**estimate capacity**) in line with the performance requirements.

Hence the **importance of research** in the test of the assessment of strength and time and distance of the five football players and their relationship to the most basic skills are the types of maneuvers and accuracy of scoring and agility so that the trainer and a reference in the knowledge of each skill of these skills any physical requirements need more and this takes advantage of time in developing skills and mastery Well.

#### Research goals

- 1-Recognize the ability of football players in the estimation of distance, time and ability.
- 2 Finding the relationship between the tests of distance, time and ability assessment with some basic skills of football lounges.

#### Methodology of research and field procedures

The researcher used the descriptive approach in the method of interconnectivity to suit the nature of the problem.

Society and the sample of research and such as the research community of the players of the team of the Faculty of Physical Education and Sports Sciences for the academic season (2017/2016) Futsal, either the sample of the search was chosen by **random simple method** (lot) after the exclusion of goalkeepers and the number was (10 players)

#### Tests used in research

- 1-Test the scoring of aspects of the stadium 2 Test the estimation of distance.
- 3-Test pass of angle marker to different distances (6m, 8m, 10m).
- 4-Test of the assessment of capability (explosive). 5. Test of time estimation.
- 6. Running zigzag test ball (sense of the environment).



Figure 1 showsTests used in research
Display, analyze and discussRelationship between the ability assessment and some important skills in football futsal.

				Test the ability Appraisal		
S	S Variables	mean	standard eviation	mean	standard eviation	
				191.17	24.35	
				correlation		
1	Test pass 6m	7.83	1.90	-0	.26	
2	Test pass8m	6.33	1.67	0	.30	
3	Test pass10m	5.67	1.59	0	.56	
4	Test Running zigzag with ball	17.23	1.27	-0.32		
5	Test the scoring	15.75	1.76	0.67		

The table above shows the mean and standard deviation of the handling test from 6m, 8m and 10m, ball fitness test, scoring accuracy, arithmetic mean and deviation for the power estimation test. The correlation between these tests and the power estimation test is shown in the table above. And 8 m) and a ball fitness test with a power rating test.

The correlation between handling (10 m) was the value of the correlation (0.56) which is the value of a positive correlation, which confirms that the greater the ability to estimate the

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amounts of power in the right manner was able to master the maneuvers correctly, as long maneuvers need more power units Of the short and medium-sized maneuvers also take longer distances than the stadium so you need to choose the power levels that correspond to the speed handling requirements to avoid being cut off by the opponent and arrive at the right time to the colleague. "The movement of the football player (futsal) is characterized by a constant change in the performance of the work that corresponds With a desirable nature The performance and characterized by the work of muscle with high intensity and explosive power and repeated releases and running and movement in different directions, whether ball or without it is imperative that the player to perform very difficult movements and with the ball, especially in cases of individual play "(I mad Zubair Hamza, 2005)

The correlation between the precision test by the test and the test of the explosive capacity of the two men was 0.67, which is a significant correlation. The greater the ability of the athlete to estimate the ability, the higher the scoring points. This was consistent with the views of Mufti Ibrahim, The scoring does not meet the requirements of the actual position of the match but this is a must to measure the player's ability. (**Mufti Ibrahim**, 1994) where one of the basic requirements of the scoring is to estimate the appropriate force with precision where this relationship is very important need to be estimated and documented in such a way that makes the player uses the appropriate amounts of position requirements for you to perform well whether it uses the characteristics of rapid power or explosive capacity The two are special requirements that must be used in the ball game of connections, where this characterization, as agreed by the authors in its definition as "the quick appearance of muscle strength, which combines both speed and strength in motion" (**Mufti Ibrahim Hamada**, 1998) Which require showing amounts Different force within a short time both in the handling of all kinds or scoring.



Figure 2 showsRelationship between the ability assessment and some important skills in football futsal.

View, analyze and discuss the correlation relationship between distance estimation and some important skills in football futsal.

				estim	st the ation of tance	
S	Variables	mean	standard eviation	mean	standard eviation	
				46.33	4.54	
				corr	correlation	
1	Test pass 6m	7.83	1.90	-0	.17	
2	Test pass 8m	6.33	1.67	0	.57	
3	Test pass 10m	5.67	1.59	0	.71	
4	Test Running zigzag with ball	17.23	1.27	-0.36		
5	Test the scoring	15.75	1.76	0.36		

The above table shows the mean and standard deviation of thehandling test from 6m, 8m and 10m, ball fitness test, scoring accuracy, arithmetic mean and deviation for the distance estimation test. The correlation between these tests and the distance estimation test is shown in the table above.), Ball fitness test and scoring accuracy test with distance estimation test. The correlation between the handling (8 m and 10 m) was the correlation value (0,57 and 0.71) which is the value of a positive correlation, which confirms that the greater the ability to estimate the amounts of distance in the right form was able to master the maneuvers correctly, (8m and 10m) is considered a long-distance maneuver with the five balls. It requires the player to estimate the distance in a good way. These are important requirements that the coach must develop in order to meet the requirements of handling speed and space in the stadium. What he confirmed (Muwafaq Majid Mawla and K. Systems spring 2011) that the manipulation tools and pitch spaces and the performance of foals makes training more useful and suspense as well as in terms of Manipulator and scoring types and gives change competitions of serious and satisfactory results in training. This must be confirmed by (Mufti Ibrahim Hamadeh (1994) that handling must have the correct estimate of strength, space and speed to reach To a successful colleague

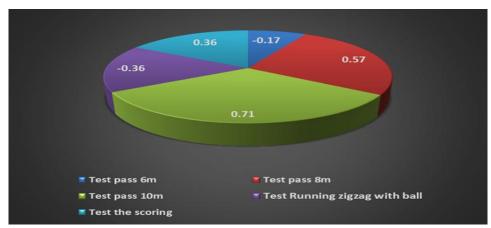


Figure 3 showsRelationship between the estimation of distance and some important

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#### skills in football futsal.

View, analyze and discuss correlation between time estimation and some some important skills in football futsal.

				Test the estimation of time		
S	Variables   mean		standard eviation	mean	standard eviation	
				0.28	4.45	
				correlation		
1	Test pass 6m	7.83	1.90	-0	).33	
2	Test pass 8m	6.33	1.67	0	.37	
3	Test pass 10m	5.67	1.67	-0	).25	
4	Test Running zigzag with ball	17.23	1.27	0.03		
5	Test the scoring	15.75	1.76	0	.19	

The table above shows the mean and standard deviation of the handling test (6, 8, 10 and 10 m), the ball fitness test, the scoring accuracy, the arithmetic mean and the deviation for the distance estimation test. The correlation between these tests and the distance estimation test is also shown from the table above. (6m, 8m and 10m), ball fitness test and scoring accuracy test with time estimation test.

Where time is an important variable in many events but did not show a relationship between him and the basic skills in the five futsal and this explains that the time is important in all skills and mastering skill in a short time is the goal sought by the coach and this is confirmed by (**Mohammad Reza Waqad, 2017**) The modern training is the training that links all variables of football, whether physical or skill, or planning and psychological in order to reach the player to the best level and these are the lines of the successful coach in achieving the objectives of training.

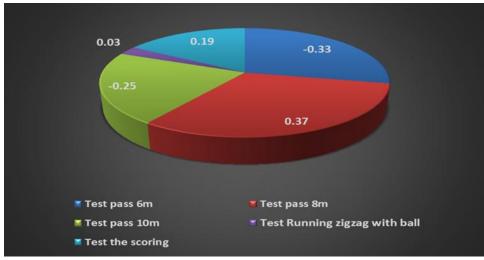


Figure 4 showsRelationship between the estimation of timeand some important skills in football futsal.

#### **Conclusions**

- 1-Estimating explosive capacity plays a large role in the accuracy of scoring and long handling (10 m) in the football players of the halls.
- 2-Distance estimation has a large role in the accuracy of long handling (10 m and 8 m) in the football players of the halls.
- 3-Time estimation does not have a role in the diverse handling test, accuracy of scoring and agility of football players.
- 4-Capacity estimation does not have a role in the handling skill (6 m 8 m) and fitness test of the football players of the halls.
- 5-Distance estimation does not have a role in the handling skill (6 m), accuracy and fitness test of the football players of the halls.

#### Recommendations

- 1-the attention of trainers to develop appropriate training curricula with an assessment of the ability and distance to the players of football halls because of their role in achieving the accuracy of scoring and handling.
- 2-To develop new tests to estimate the capacity, distance and time of the instrument so that there is accuracy in the measurement.
- 3 Develop new tests for accuracy of handling and scoring corresponds to the positions of the players of football players

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## PROMOTING RECREATIONAL ACTIVITIES AT WORK PLACE- A PSYCHOLOGICAL PERSPECTIVE

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#### **ABSTRACT**

Effective recreational activities attempt to create healthy workplace climates. A healthy workplace climate is one which encourages teamwork, cooperation, and empowerment of the individual. Recreation and leisure activities are bygone themes that has moved away from being part of people's personal space and has permeated the work sphere as a significant component. Modern organizations realize and value the importance of employee health, well-being, and personal and professional growth and believe that well planned and managed recreational activities would contribute towards higher levels of employees commitment to the organization. With involvement in recreational programs, the productivity of employees could be boosted by meeting their physical and psychological needs which in turn will reduce rate of absenteeism and presenteeism and have a better professional behavior and be more productive at work. Organizations measure the success of managed recreational programs in terms of economic contributions. This paper would focus on the importance of recreational activities at workplace.

Keywords: Recreational Activities, Leisure, Employee, Well-Being, Absenteeism,

Presenteeism.

Recreational activities can range from physical actions such as team sports to playing in the

park or taking a hike in nature and can also refer to exercise such as visiting the gym or running

on a trail. These activities allow people to use their bodies and increase their levels of personal

fitness for health-related reasons. Some forms of recreational activities do not need to be

physical at all. These activities can help improve cognitive function and take stress off of a

person who thinks about work all of the time. Some non-physical recreational activities include

trivia nights, card games, board games and even video games.

Recreational programs supporting organizational outcomes have existed in one form or another

for over fifty years. The implied, and more recently, the stated purposes for these recreational

programs were to reduce stress, improve production efficiencies, and curb unnecessary expenses.

Additionally, recreational programming was intended to improve morale, stimulate motivation,

and improve or maintain job satisfaction; all key elements for an organization involved in the

recruitment, retention, and career productivity of quality personnel. As leisure increased toward

the end of the nineteenth century, the strict work ethic slowly dissipated and a greater concern

for quality of life began. Leisure gave rise to employee recreational services. This leisure was the

basis for continued participation in programs provided by industrial corporations in which they

worked. The names of these programs vary and are frequently referred to as fitness programs,

Employee services programs, wellness programs, industrial recreational services, and employee

lifestyle programs (Ellis & Richardson, 1991; Murphy, 1984; Wesner, 1989). Recreational

Programs in industrial organizations revealed that for the participating employee, morale and

productivity improved, teamwork and socialization that companies of the 1950's desired were

enhanced. Murphy (1989) reported that "Management in the fifties looked to recreational

programs to build the esprit de corps necessary for healthy worker relationships to identify

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leaders for promotion within the company." The fitness or wellness programs had the potential

for inducing greater productivity and less absenteeism. The reason some companies support

fitness programs is reduced illness and lower insurance premium costs.

As part of human resource development, organizations and individuals are slowly appreciating

the concept of planning and managing employee recreation. American Council on Exercise

(2000) contends that creating some leisure time in the course of the day allows employees to

recharge themselves psychologically and emotionally and this can lead to improved job

performance. There is increased involvement in leisure activities and wellness programs by

companies in a bid to promote employees' physical and mental health. The demand for man

made additional resources for recreation is greater now than before (Taylor, 2008). Though there

are many mushrooming of entertainment and sports clubs, many organizations have invested

large sums of money to provide such facilities within the workplace. There is evidence that

workplace recreation has a positive effect on employee performance (WHO, 2003). In USA

these programs have helped reduce short-term sick leave (by 32%), health care costs (by 20-

55%) and increased productivity (by 52%). With recreation facilities to employees, organizations

can help to boost the productivity of employees by meeting their physical and

psychological needs which in turn reduces the rate of absenteeism, sick leaves and medical costs.

When recreation is well planned and managed, it can significantly contribute towards higher

levels of employees' commitment to the organization thereby significantly reduce absenteeism. It

plays a key role in bonding among employees and with customers. Recreational activities

provide an opportunity for socialization and strengthening ties among employees and customers

as well as for skills development such as leadership, interaction and communication which are

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essential in the provision of effective service delivery. This translates to more working hours by the healthy employees due to improved concentration; leading to improved organizational efficiency and profitability.

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## A proposed sports program to improve the rates of sugar and fat in the blood of patients with type II diabetes "Field study in the mandate of Djelfa"

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#### Abstract

The study aims in general to recognize the role and importance of sports and physical activity to improve and adjust the level of blood sugar in a sample of patients with diabetes who are not using insulin, also aimed to find out the extent of its impact on the changing physiological "blood fat" because of their relationship with diabetes, and to achieve the desired goal, we relied on some aerobic exercises like walking and running to underline the sports program.

The current study showed that the regular practice of physical activity of moderate intensity has led to improved blood sugar in diabetics, also it had a strong association in improving physiological variable proportions "fat in the blood," and from here it highlights the importance of physical activity and its positive impact on the health of people in this category, he also plays a preventive and therapeutic role in confronting many of the chronic diseases, and multiple health benefits come from regular practice of physical activity that include the health of many organs in the body, such as heart and blood circulation, lungs and respiratory system, nervous system, muscles, Joints and bones, as well as mental health. Concerning the application of the program, the researcher relied on using a step by step intensity.

**Keywords:** sport program. Diabetics. sugar level in blood. Blood lipids.

**Problem of the study:** The modern era has accelerated in various fields of life, thus creating a kind of constant tension and anxiety in individuals, in order to provide a decent livelihood, all at the expense of the health of individuals, and the lack of activities, and hence called the era of inactivity, The life of many in our modern world depends on the availability of the physical comforts and physical well-being of our civilization, so that the movements decreased and physical activity exists only in a narrow range in addition to psychological and life pressures, leading to a life with a proportion of health risks and the spread of so-called diseases of the age Which the individual is exposed to.

Diabetes is considered as one of the most common chronic diseases of people in this age. The World Health Organization (WHO) estimates that 230 million people are infected, which means that one in six people is infected with it. In Algeria, we have got 1.7 million people with this desease, Doctors noted on the International Day of Diabetes in 2008, that half a million people in Algeria are unaware if they have this disease, which lasted 80 thousand children, and affects thousands of young people between the ages of 18 and 25 years, Which doctors attribute to the lack of exercise of these sports, as well as the spread of obesity and the change in the pattern of living and dependence on Fast meals which is rich with fats in the blood.

In the face of these frightening figures, the serious complications and the steady increase in the number of people infected with it, the interest of doctors and scientists to study more deeply to reach multiple treatment methods, and thus many studies in this area and among the findings of most researchers is that physical activities are a mean for natural remedy, which led doctors to advise and encourage their patients to exercise because of its positive effects on their health, and its contribution to improving the health of the patient in general and an attempt to return to normal life or to approach it, but some went to be consider it as a means of prevention for many

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Of the Diseases before they are treated.

The American College of Sports Medicine has identified three phases of the aeronautical training program and the three phases are: the first adjustment stage, the improvement stage, and the final stage of "continuity" which is to be maintained for a lifetime. (Mary P. McGowan et al., 2005 p. 120)

In the light of the recommendations of the American College of Sports Medicine, it was proposed in this study a two-stage sports program: the stage of adaptation and improvement, and the general question was as follows:

- Does the proposed sports program have an effect on the "sugar and fat" ratios in the blood sample?

We ask a number of sub-questions as follows:

- 1. Are there statistically significant differences between the results of blood sugar and fat ratios of the measurements: previous measurement and measuring the stage of adaptation in the research sample?
- 2 Are there statistically significant differences between the results of blood glucose and fats in blood levels of the measurements: previous measurement and measurement of the improvement stage in the research sample?
- 3 Are there statistically significant differences between the results of blood glucose and fats in blood levels of the measurements: measurement of the stage of adaptation and measurement of the improvement stage in the research sample?

#### **Hypotheses:**

#### **General Hypothesis:**

- The proposed sports program has a positive effect on the "sugar and fat" ratios in the research sample.

**Study Approach:** The experimental approach (one-group method) was adopted because it is appropriate for this type of study. This is because the subject of the study (proposed sports program to improve blood sugar and fat levels) requires the use of this type of method, which is in line with the objectives of the study.

**The study:** Our study population consists of all patients with Type 2 diabetes (NIDDM) who are not insulin-dependent in the state of Djelfa. The sample was selected in a deliberate manner, with 12 individuals with type 2 diabetes (DNNIM) selected.

. Study tool: After reviewing a number of sources and references, and interviewing experts regarding exercises that benefit diabetics, a number of exercises were chosen to help reduce blood sugar in addition to blood lipids, the sports program was designed and then presented to Some of the specialists in the sports and medical side for the purpose of evaluation in terms of the benefits and effects contained in it, and its relevance to the sample of research and the intensity of the program, and the extent of the ability to apply exercises especially as they have diabetes, and to be able to achieve the desired goal. the consensus was that it must be a gradient in the intensity of Exercises and depending more on aerobic exercises, taking into account the spacing of training modules, and emphasis on the medical accompaniment for all stages of training, and after the amendment of the proposed sports program was presented again to specialists to evaluate it again, and after taking the new observations, the sports program was defined as follows:

**The first stage:** is the adaptation stage where the members of the research sample exercise for 4 weeks and at a rate of 2 to 3 servings per week. At this stage, the first level of walking program for Osama Rateb and Ibrahim Khalifa.

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- The second stage: Improvement stage in which the members of the research sample doing walking exercises and conducted for 12 months at a rate of 3 servings per week.

As for the method of the program, the researcher relied on the method of gradualism in intensity. **RESULTS** 

□ View and analyze the results of the general hypothesis: To verify the validity of the hypothesis: "The proposed sports program has a positive effect on the blood sugar and lipid ratios in the study sample." ANOVA method was used because there are more than two measurements (the previous measurement, In the stage of adaptation and measurement of the improvement phase.

**Table (04):** shows the results of the ANOVA test, and the source of variance between groups and within groups for the mean variables of the study.

Statistica	Source	Total	Freedo	Mean	Valu	Level of	Statistica
1	of	Averages	m	squares	e P	significan	1
statement	varianc		degrees			ce	resolutio
Variables	e						n
Blood	among	80683.477	2	40341.73			Significa
sugar in	groups		2	9			nt
the case	Inside	27504.58			44.00	0.000	
of fasting	the	3	30	916.819	2	0.000	
	groups						
	Total	108188.0	32				
		61	32				
Total	betwee	5040.659					Significa
cholester	n		2	2520.330			nt
ol	groups						
	Inside	13973.58			5.411	0.010	
	the	3	30	465.786			
	groups						
	Total	19014.24	32				
		2	32				
HDL	betwee	1011.576					Significa
	n		2	505.788			nt
	groups				29.10	0.000	
	Inside	521.333			5	0.000	
	the		30	17.378			
	groups						
	Total	1532.909	32				
Ldl	betwee	2690.990	2	1345.495	4.150	0.026	Significa

	n groups						nt
	Inside the groups	9726.889	30	324.230			
	Total	12417.87 9	32				
TG	betwee n groups	7240.414	2	3620.207			Significa nt
	Inside the groups	8490.556	30	283.019	12.79 1	0.000	
	Total	15730.97 0	32				

Table (04) shows the total statistical results for the ANOVA. We note that the values of "P" are statistically significant at levels of significance less than 0.05 and therefore there are statistically significant differences between the averages of the three measurements and all the studied variables, and therefore the mathematical program had an impact on the variables of the study, and to find out if this effect is positive on the proportions and values of the variables of the study and thus the acceptance of the general hypothesis, or the effect was negative and thus reject the general hypothesis, we used multiple comparisons using LSD and Dunnett ways, and the Obtained results as follow:

Table (05): shows the results of multiple comparisons in LSD and Dunnett methods for the mean variables of the study.

Multiple comparisons		Measurement	Measurement J	The difference	level of
Variables	comparison	I		between the two	significance
	method			averages I-J	
				(Amount of	
				improvement(	
Sugar in the case of	LSD	Previous	Adaptation phase	48.25000*	.000
fasting			Improvement	125.08333*	.000
			phase	123.06333	.000
		Adaptation phase	Previous	-48.25000*	.000
			Improvement	76.83333*	.000
			phase	/0.83333**	.000
		Improvement	Previous	-125.08333*	.000
		phase	Adaptation phase	-76.83333*	.000
	Dunnett	Adaptation phase	Previous	-48.25000*	.001
		Improvement phase	Previous	-125.08333*	.000
			Adaptation phase	-7.36111*	.002
	Dunnett	Adaptation phase	Previous	-2.08333-	.501
		Improvement	Previous	-9,44444*	.000
		phase		-9.44444*	.000
Total cholesterol	LSD	Previous	Adaptation phase	5.25000	.556
			Improvement phase	29.91667*	.004

			10.0	ille. 4, 140. 2, July	
		Adaptation phase	Previous	-5.25000-	.556
			Improvement phase	24.66667*	.015
		Improvement phase	Previous	-29.91667*	.004
		F	Adaptation phase	-24.66667*	.015
	DUNETT	Adaptation phase	Previous	-5.25000-	.781
		Improvement phase	Previous	-29.91667*	.007
HDL	LSD	Previous	Adaptation phase	-2.66667-	.128
			Improvement phase	-13.50000*	.000
		Adaptation phase	Previous	2.66667	.128
			Improvement phase	-10.83333*	.000
		Improvement phase	Previous	13.50000*	.000
		*	Adaptation phase	10.83333*	.000
	Dunett	Adaptation phase	Previous	2.66667	.221
		Improvement phase	Previous	13.50000*	.000
LDL	LSD	Previous	Adaptation phase	4.66667	.530
			Improvement phase	22.11111*	.009
		Adaptation phase	Previous	-4.66667-	.530
			Improvement phase	17.44444*	.036
		Improvement phase	Previous	-22.11111*	.009
		•	Adaptation phase	-17.44444*	.036
	DUNETT	Adaptation phase	Previous	-4.66667-	.756
		Improvement phase	Previous	-22.11111*	.017
TG	LSD	Previous	Adaptation phase	2.16667	.755
			Improvement phase	34.27778*	.000
		Adaptation phase	Previous	-2.16667-	.755
			Improvement phase	32.11111*	.000
		Improvement phase	Previous	-34.27778*	.000
			Adaptation phase	-32.11111*	.000
	Dunett	Adaptation phase	Previous	-2.16667-	.932
		Improvement phase	Previous	-34.27778*	.000

**Table (05)** shows the results of the multiple comparisons in LSD and Dunnett methods for the means of the study variables. It also illustrates the improvement between each of the three measurements, Where we note that except high-density lipoprotein HDL , all the other variables have decreased after the adjustment stage and decreased further after completion of the improvement phase , Indicating a gradual improvement in their values and approaching to more natural values. High density lipids (HDL) show that their values increased after completion of the adaptation phase and increased more after completion of the improvement phase, indicating that their values started to improve and gradually increase to reach Natural levels .

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From the above we conclude that the mathematical program has a positive effect on the various variables studied, and therefore the general hypothesis has been proved.

#### Discussing the study results

- □ Explaining and discussing the results of the general hypothesis: Decreased blood sugar level in the case of fasting with an improvement of an average of 125.08 mg / l and the levels approached more than normal values. The researcher pointed out that the physical effort exerted during the exercise led to increased consumption and demolition of glucose molecules to provide energy and contributed In the increased storage of excess glucose, and the results are consistent with the study of each of Bezar Ali Gokel, Leyman, Spinas and Fury where they found that with exercise we control high blood glucose.
- The low level of cholesterol, LDL and TG. The researcher attributed this positive effect to the gradual increase in the intensity of the physical effort exerted on weight and the reduction of fat storage reflected positively on both total cholesterol, LDL and TG, Which led to the decline in values, where used as an energy source when increasing the intensity of the exercises. It was consistent with the results of the study of Bezar Ali Gokel, Leyman, Spinas and Fury who found that regular physical exercise reduces TG and LDL, and also agrees with an immediate study that physical exercise improves the disorder of blood lipid concentrations .

The high level of high density lipids (HDL), which is attributed by the researcher to the gradual increase in the intensity of the physical effort, which has a positive effect on its height. It is also consistent with Aqeel Hussein Idruss (1993, p. 91) That exercise is working to raise the level of high-density lipoprotein HDL, the obtained results are consistent with the results of each of: Bernard Studies and others, Bezar Ali, Lehman and Spenas where pointed to the high level of fat in HDL after exercise.

#### **CONCLUSION**

Diabetes is a common and widespread disease in our present time. Failure to control this disease will lead to many complications, including cardiovascular disease and high fat, in addition to atrophy of limb muscles, high blood pressure and peripheral neuropathy, which sometimes lead to Leg amputation which may be the cause of death, so all methods and means to avoid complications should be used. Sports and movements activity play an important role in the lives of individuals. Studies indicate that physical and movement activities are the main source for scaling diabetes.

Therefore, in this study we used a mathematical program which was divided into two stages: the adaptation phase, in which walking exercises were implemented, followed by an improvement stage which adopted a combination of walking and running for people with diabetes. This is to know the effect of the program on the rates of sugar and fat in the blood.

After the application of the program in its two phases and the collection, presentation, statistical processing, discussion and comparison with previous relevant studies, we found that the proposed sports program has a positive effect on all the physiological variables of the study, by improving its proportions which approached normal proportions.

As a result, exercise in general and aerobic exercises in particular have positive effects on the health status of diabetics, which will be reflected by alleviating the severity and complications of the disease. Regular physical activity also improves and adjusts most of the associated physiological variables related to diabetes.

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## Impact of the Perceptual learning by simulation on decisionmaking in Volley ball

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#### **Abstract**

The objective of this study is to approach the decision-making process in volley ball through the perceptual learning by simulation. 148pupils took part voluntarily to this experience. The pupils were divided into two groups. An Experimental Group (EG) which was to follow a program of learning of the technics of the Volley Ball on computer (Images in 3D) before they begin the learning and a Control Group (CG) who performed the classical learning through technical exercises.

Tests have been realized after a period of learning on different technics of volleyball. The results showed that the group experimental had significantly improved these results during the decision-making. This study shows the need to use the new technology (simulation) to optimize the mental skills in the teaching of volleyball.

**Key words:** Perceptual Learning, Decision making, simulation, Volley ball

#### INTRODUCTION

Factors of success in sports require adopting the correct scientific method that achieves what is needed by specialists including trainers or teachers. This is in order to reach the best results. Volleyball is considered one of the games that need research, study, analysis and evaluation as this game is characterized by high level of technical performance of skills. Lately, there was a notable development in this game which asserts the concern of trainers and researchers in the use and development of means of measurement and evaluation for the purpose of identifying status and condition of players or learners. in order to prepare training or educational programs based on the results of measurement and evaluation to raise performance level from psychological and physical skills.

Volleyball is considered one of the forms of ball games which are characterized by

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dynamism and thrill which give it a special nature that differs from other team games. This is evident in the way of using the ball through a set of various and different skills. In addition, volleyball has its basic various principles that depend on mastering and raising their levels on optimal achievement level. This is done by adopting the right methods of teaching, learning and training with the choice of the latest among them. A lot of specialists in volleyball workers (trainers, teachers or academics this game) in their studies and researches agreed that the success of any team in volleyball is determined to a great extent by the degree of mastering the game's basic principles of skills (Al Bek, 1984; p. 122).

However, this success cannot be reached except for mastering total complex mental skills that are considered as essential in tactical strategies in volleyball. Among these mental skills, there is decision making skill which is considered the core of achieving results in performance. So this mental skill should have important and great concern of teachers, trainers and players themselves. This is done only through intensifying exercises which include various mental skills and develop them in order to reach a high degree of distinction, accuracy and consistency. In addition, volleyball is one of the team sports that are characterized by continuous observation of situations, continuous concentration and preparation for decision making suitable in acting at anytime.

The nature of this game also makes it as a scenario which is full of continuous events and changes. This encourages us to use total mental and physical abilities to cope with these changes through good and right employment of these abilities in order to reach a good level of playing and competition (Ali, 2004: p. 12).

#### **Problem of the Study**

Significance of the study comes in determining the performance of some important and effective skills in skilled and technical performance of this game. The tactic which builds aesthetics of this game is built if the game is connected with decision making and showing the level of this skill for learners. It is the decision making which makes teachers able to determine optimal way and pattern of raising the game's level and considering points of strength and weaknesses in preparing teaching programs. Individuals are characterized by individual differences and attributes. Therefore, physical education teachers are suffering from some problems when they evaluate their demand or players. Among them, there are those who believe

that they know their students well and able to evaluate them this is based on many impressions formed by improvised scenes, but this knowledge and experience is not different from other scientific methods of evaluation. from researcher works in the sport field and good watchers of volleyball, we notice that most teachers focus on skilled performance, ignore mental aspect or they lack experience in this field especially when it comes to mental skills including decision making skill which is considered one of the updated and modern terms which tackles optimal mental ability of learners in an accurate way for good preparation, exert efforts and excel in competition. Therefore, the researcher studies the level of decision making in serving, reception and preparation skills by posing the following essential question: What is the level of decision making in some volleyball skills for secondary stage for secondary school students?

#### **3-The Electronic Program**

The used program was a test of decision making skill using simulation of playing postures in volleyball using computer program called "Super Lab (Version 4.04)". It presents images as visual attention for choice. This programming presents pictures and records which answer the searching and timing experiments used on the computer. A set of images used representing different playing positions in volleyball chosen by a group of referees and then they were presented to the samples of the study (96 3D pictures) ordered according to the name and number used in lottery. The informants answered correctly and quickly balls during the presentation of pictures on the computer screen to answer them through choosing the correct decision.

#### 3-1-Test Design

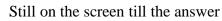
The sample of the study was put before the computer screen, pictures of different positions were presented in the previously discussed playing cases and then they choosed decisions in each case in good and quick answers by using the correct playing position (each playing position has five choices to choose "from 1 to 5"). Each attempt was made as follows: preparation signal (!): 1500 ml / second showing the picture of a certain playing position and followed by the correct chosen picture after pressing any of the five buttons (1, 2, 3, 4, 5) by your index finger.

#### Pictures presentation before the tested respondents:

1500ms on the screen 1500ms on the

screen

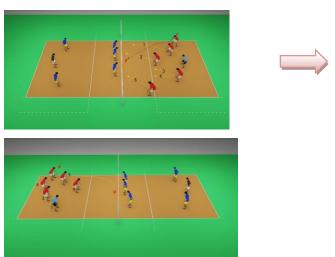






Still on the screen till the





#### **3-2-Exploratory Trial:**

After the researcher determined the most important basic attacking skills which are related to the proposed tests, he performed the exploratory trial on 01/01/2014 on a sample of second secondary stage students among those who are not included by the main exploratory trial (10 students). The aim of this trial was to identify the difficulties which may face the researcher during the performance of tests and the efficiency of the assistant working team and the lasted time to execute these tests.

#### **Discussion of Results**

#### **4-1-First Hypothesis:**

- There are statistically significant differences between decision making and some volleyball skills (serving, receiving and preparing).

#### **4-2-Second Hypothesis:**

- There is a low decision making level for secondary stage students in serving, receiving and preparing skills.

Tests		Category no.	Mean	S.D	F Counted	F Tabulate	Significance level	significance
	Test 1		27.1	11.82				
Serving	Test 2 Decision		18.8	3.6				Significant
g	making		12.35	3.84				~- <b>g</b>
	Test 1		27.25	7.5				
	Test 2		26.15	6.45	5.94			
Reception	Decision making	148	7.85	2.79		3.06	3.05	Significant
	Test 1		27	7.40				
Preparation	Test 2		26.4	6.70	4.46			
	Decision making		7.85	2.79				Significant
	Good	18	12.1	6%				
Total decision	Average	40	27.0	2%				
making	Weak	90	60.8	31%				

Table (3): A. Means, Standard deviations, F test of decision making tests in some volleyball skills (serving, reception and preparation)

In table (3) which shows results of decision making tests in some volleyball skills, we notice that the means of serving, reception and preparation are as follows:

Serving: (12.35 / 18.8 / 27.1), reception: (7.85 / 26.15 / 27.25) and preparation: (7.8 / 26.4 / 4.27)

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and with standard deviations as follows: serving: (3.84 / 3.6 / 11.82), reception: (2.79 / 6.45 / 7.5) and preparation: (2.79 / 6.7 / 7.4).

Accordingly, there are statistically significant differences between decision making level and some volleyball skills as the F counted values for (serving, reception and preparation) were (4.46 / 5.94 / 3.80) which are better than the tabulated one (3.06) under significance level (0.05).

Decision Making: through the table which shows results of decision making tests in some volleyball skills, we notice that there were statistically significant differences between decision making levels (good, average and weak) with percentages at all decision making levels ((good, average and weak) as: (12.16 / 27.02 / 60.81), so they achieved the hypothesis which says that decision making level is low at each skill (serving, receiving and preparing). Results reflected a clear weakness in responding decision making as well as their poor performance in volleyball skills performance which asserts that they need a follow-up and develop mental skills. Students who use their mental skills well will reflect positively in using their basic volleyball skills which means that skilled performance is connected to abilities. Rayan, 1971 found that the physical and skill conditions do not only express general level of players, but what we need to know is the degree of mental recognition accuracy in their abilities and potentials. Sakhi, 2006 found that continuous use of mental skills training is as important as training on using physical and skill abilities, which means that performing skills with high level leads to increase muscular and nervous compatibility, movement control and good skill performance.

The researcher found that lower levels of decision making skill for the sample of the study is due to the educational content; which is almost empty; of training related to develop mental abilities of students. It can be said that the best results that can be reached through good execution of basic skills should be related to the student's ability to use his/her mental potentials, especially decision-making which is based on good expectation and timing and ability to follow the ball.

Through results of the study, the researcher reached some results as follows:

- There are statistically significant differences between decision making and some volleyball skills.
- There are statistically significant differences between total decision making levels.
- Sample of the study has a low decision making level.
- Most individuals of the sample are at weak level.

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#### **DISCUSSION**

Through statistical treatment of the study; results and results at above tables, said that:

#### 5-1- Discussing Results of the First Hypothesis:

The researcher proposed that there are statistically significant differences between decision making and some volleyball skills.

This was found in table (3) as it showed statistically significant differences between decision making and some volleyball skills (serving, receiving and preparing). The researcher found that these differences are due to lack of experience and practice in students performing skills as well as lack of mental and cognitive maturity. Each skill needs repeat physical training in addition to mental skills. Skills in general need from learners high and successful consistency and perception and they need also high degree of accuracy, attention, intelligence and recognition.

#### 5-2-Discussing Results of the Second Hypothesis:

Results in table (3) showed low decision making level for students in (serving, receiving and preparing) skills. The researcher found that most respondents of the sample were at weak and average levels due to the difficulty of this mental skill which needs high consistency between concentration, speed and accuracy in performance. Decision making is one of the most important abilities of players in higher sport levels. Its success depended on basic factors such as information speed, accuracy, and level of activity, knowledge, skills and prior experiences which are not found in the sample of the study. Fathy, 2008 referred that skill creative abilities through the ability to take suitable decisions with experience represented in repetition.

#### RECOMMENDATIONS

- Asserting the use of various teaching methods based on a modern technic that makes the teacher's role effective in educational process.
- Performing periodical and continuous tests of mental abilities of students with the aim of identifying their reality and their work on developing these abilities.
- Performing similar researches on students for the other volleyball skills and other sport games' skills to know the importance of decision making on different sport events.
- The necessity of making teachers aware how to develop variables of decision making skill for sport movements through practical experiences using different senses.

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## The Effect of Using Sport Bike and Bicycles on Some Physiological Variables of the Fourth Year Students in the College of Physical Education/ Al-Qadisiya University 2017

## Assist. Prof. ALI AHMED NAJEEB AL-AWADY PhD College of Education, Al-Qadisiya University, Iraq

#### **ABSTRACT**

The study aims to identify the Effect of using sport bike and bicycles on some physiological variables of the fourth year students in the college of physical education/ Al-Qadisiya university.

The researcher uses the experimental approach due to its suitability to the study. The study community includes 66 students, and the sample is divided into three groups; both the first and the second experimental groups are (22) students respectively, the third control group is (22) student. Pretests have been conducted on 29 Sep. 2016 and posttest on 27 Nov. 2016 for the three groups in the indoor hall at the college. At 9:00 a.m., weight and height have been taken with other physiological variables (pulse, breathing, systolic blood pressure).

The researcher sets up a training programme for the first and the second groups for 8 weeks starting from 2/10/2016 to 24/11/2016. The researcher uses statistical tools to analyze the raw data. The study concludes that there are differences of statistical significance among the groups in favour of the two experimental groups in comparison with the control group in all physiological variables of the study. The variable of systolic blood pressure in the first and the second groups did not achieve any statistical significance due to the approximate results between them, which is considered as physiological and health aspects.

**Keywords:** Sport bike, bicycle and physiological variables.

#### Introduction and the importance of the study

The scientific and technological advancement in the field of sport training through using modern techniques and their impacts on body organs requires deep investigation on selecting appropriate methods for the physiology of sport training, which enhances the sport performance. This aspect motivates the researchers to focus on this issue, which is using the sport bike by one group of students in an indoor hall of limited space while bicycle is used by the second group in the open air in the open 'track and field' course. The study resulted in some physiological variables (pulse, breathing and systolic blood pressure). The training programme lasted for several weeks, and this study is one of the rare studies, which compares between using sport bike and bicycle, and their relation to physiological variables.

#### 1.2. Study problem:

The students of the college of physical education have some sort of unwillingness to use bicycle in sport activities if compared with using sport bike. Due to rarity of such studies, the researcher adopts this study.

#### 1.3. The study aim:

The study aims to identifying the effects of using sport bike and bicycle on weight and some other physiological variables (number of pulse, number of breathing and systolic blood pressure)

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for the 4<sup>th</sup> year students at the college of physical education and sport science/ Al-Qadisiya university.

#### 1.4. Study Hypothesis

There are differences of statistical significance between the first and the second groups in comparison with the control group in favour for the second group in the variables of weight, pulse, breathing and systolic blood pressure of the 4<sup>th</sup> year studentsat the college of physical education and sport science/ Al-Qadisiya university.

#### 1.5.1. the study fields:

4<sup>th</sup> year studentsat the college of physical education and sport science/ Al-Qadisiya university.

#### 1.5.2. **Spatial Field:**

Indoor Hall and track and field courseat the college of physical education and sport sciences/ Al-Qadisiya university.

#### 1.5.3. **Time field:**

From 26/9/2016 to 27/11/2016

#### 2. Methodology of research and its field procedures:

#### 2.1. Methodology of research:

The researcher uses the experimental approach because it fits the nature of the study and using the equivalent groups method. The researcher pretested and posttested each group depending on the idea that " the researcher attempts to control in situations under investigation except the variable that he believes it is the reason of certain change in that situation."<sup>(1)</sup>

**Pretests** Post test T. Samples are interrelated Control group Control group T. Samples are interrelated Anova 1 ST experiment 1 ST experiment Anova for  $\leftarrow$ for comparison group group valence T. Samples are 2 ND experiment 2 ND experiment interrelated group group

Figure (1) experimental design of the study

#### 2.2. Samples of the study:

The researcher contacted and interviewed officials in the deanery of the college and the samples members to get the college and 4<sup>th</sup> year students oral approval to take measures. The sample includes (66) female students. Then the idea of the study is fully explained for the students, where the sample is divided into three groups (both the first and the second groups are experimental one and include 22 for each and the third is a control one with 22 students)

#### 2.3. Equipment and tools:

- weight scale (2), blood pressure meter (2), timing watch (2). Calibration has been conducted on 26/9/2016 and 23/11/2016 before the experiments to check the accuracy.
- 22 sport bikes and 22 bicycles.
- 2.3.1. Means of the study:
- Health application, attached in appendix (2), to fill the three groups data and the results of the tests.
- 2.4. To ensure the accuracy and validity of the equipment, the researcher conducted on 27/9/2016 at 9:00 a.m. a practical experiment on (6) students; (3) students in the indoor hall and other (3) in the track and field course.

#### 2.5. Main experiment:

#### 2.5.1. Sample Pretests:

Pretests have been achieved on 29/9/2016, where conditions (place, time, the method of test and the work team) are controlled, where height, weight, number of pulse, breathing and systolic blood pressure are measured.

#### 2.5.2. Training programme:

The programme starts from 2/10/2016 to 24/11/2016 and it includes (8) weeks, 3 training units per week and (1) hour per day, which includes warming up before riding the bike and bicycle. The aim of such preparation is to develop physical fitness and the students' motor ability when riding sport bike and bicycle and reaching the required physiological status so that the training programme could be achieved according to the training sample attached inappendix (2). The researcher pays attention to the types of the two bikes with the accurate movement of legs and thigh that conforms with steady bikes seats on the same level. These arrangements have positive mechanical effect on developing physiological variables in addition to identify the tension and timeof the two groups equally that legs muscles endure during training load, and this is adopted by the researcher along the period of the programme. It is necessary to identify the speed of the foot, which means " the percentage between the distance the foot crossed on the circumference of circulation Centre of the hip-joint divided on elapsed time" (2)

The programme details are in appendix (1)

#### 2.6. Homogeneity and equivalence among study groups

#### 2.6.1. Homogeneity

Table (1) Homogeneityamong study groups ( $1^{st}$ &  $2^{nd}$  experimental groups &  $3^{rd}$  control one)

		1-Homog	geneity of	f 1 <sup>st</sup> exp	erimental gr	oup	
Systolic blood pressure/m	No. of pulse	No. of breathin	Height / cm	Weig ht/ kg	Age/ year	variables	Statistical processes
m/ hg 121.72	75.90	16.72	168.2 2	64.63	21.86		Arithmetical mean s-
1.851	1.41	0.82	1.54	1.09	0.88		Standard deviation±
1.52	1.85	4.94	0.91	1.69	4.06		Coefficient of variation
random	random	random	Rando m	rando m	random		Significance
		2-Homog	eneity of	2 <sup>nd</sup> exp	erimental g	roup	
121.72	75.81	16.63	167.9 5	64.40	22.04		Arithmetical mean s-
1.63	1.09	0.65	1.21	0.95	0.99		Standard deviation±
1.34	1.44	3.95	0.72	1.48	4.53		Coefficient of variation
random	rando m	random	Rando m	rando m	random		Significance
		Hom	ogeneity	of the co	ntrol group		
122.09	76.18	16.72	168.3 6	64.54	21.95		Arithmetical mean s-
1.71	1.18	0.76	1.29	0.96	0.99		Standard deviation±
1.40	1.54	4.58	0.76	1.49	4. 5 4		Coefficient of variation
random	rando m	random	Rando m	rando m	random		Significance

#### 2.6.2. Equavalence:

Table (2)
Equivalence among groups (the first and the second experimental groups and the control one)

significance	(F)	(F)	Mean	Degree	Summation	Source	variables	No.
_	tabular	value	of	of	group	of		
	value		groups	freedom		variance		
insignificant		0.025	0.015	2	0.030	Among	Age	1
_						groups	_	
			0.610	63	38.455	Inside		
	0.283					groups		
insignificant		0.038	0.045	2	0.091	Among	Weight	2
						groups		
			1.204	63	75.864	Inside		
						groups		
insignificant		0.087	0.106	2	0.212	Among	height	3
						groups		
			1.214	63	76.455	Inside		
_						groups		
insignificant		0.244	0.379	2	0.758	Among	breath	4
						groups		
			1.553	63	97.864	Inside		
						groups		
insignificant		0.264	0.727	2	1.455	Among	pulse	5
						groups		
			2.759	63	173.818	Inside		
						groups		
insignificant		0.321	0.970	2	1.939	Among	Systolic	6
					100 - 1-	groups	blood	
			3.025	63	190.545	Inside	pressure	
						groups		

At level 0.05

#### 2.7. Statistical Tools

• Arithmetical mean, standard deviation and T. test for interrelated samples.

Table (3) Differences among study groups
The results of different posttests among three study groups

significance	(F) tabular value	(F) value	Mean of groups	Degree of freedom	Summation group	Source of variance	Variables	No.
significant		41.560	47.572	2	95.572	Among groups	Weight	1
Significant		41.300	1.145	63	72.144	Inside groups	weight	1
significant	0.283	82.717	55.682	2	111.364	Among groups	Draothing	2
significant	0.263	02./1/	0.673	63	42.409	Inside groups	Breathing	2
significant		6.402		2	20.818	Among groups	Pulse	3
significant		6.493	1.603	63	101.000	Inside groups	Pulse	3
			10.409	2	20.818	Among groups	Systolic	
		6.493	1.603	63	101.000	Inside groups	blood pressure	4

Tabular (f) value at (2-63) freedom value and (0,05) significance value

Table (4)
The results of variables for the minimum significant difference among the three study groups (first and second experimental groups and the control one)

significance	Level of significance	Standard mistake	Differences among Arithmetical means	Arithmetical means	Comparison among groups	variables
significant	0.004	0.322	0.954	- 62.6136 61.6591	G1-G2	
significant	0.004	0.322	1.931	- 62.6136 64.5455	G1-G3	weight
significant	0.000	0.322	2.886	- 61.6591 64.5455	G2-G3	
insignificant	0.000	0.247	1.590	- 15.1364	G1-G2	breathing

				13.5455		
significant	0.000	0.247	1.590	- 15.1364 16.7273	G1-G3	
significant	0.000	0.247	3.181	16.7273 -13.5455	G2-G3	
insignificant	0.003	0.348	1.090	- 74.1818 73.0909	G1-G2	
significant	0.000	0.348	2.000	- 74.1818 76.1818	G1-G3	pulse
significant	0.000	0.348	3.090	- 73.0909 76.1818	G2-G3	
insignificant	0.408	0.318	0.318	120.9545- 120.6364	G1-G2	Systolic
significant	0.011	0.381	1.000	-120.9545 121.9545	G1-G3	blood pressure
significant	0.001	0.381	1.318	-120.6364 121.9525	G2-G3	pressure

At level of (0,05)

#### RESULTS DISCUSSION

Table (3) shows that the source of variance among groups is significant among post tests arithmetical means in favour of weight, no. of breath, no. of pulse and systolic blood pressure among groups (47.572, 55.682, 54.061, 10.409) and inside groups(1.145, 0.673, 1.339, 1.603) in favour of no. of breath. The researcher attributes this improvement for the training program and its effect on body organs "each training causes changes manifested clearly on metabolism, and the changes that resulted from training could be on motion, chemical changes or neurotransmitters to muscles. Also the repetition of motor skill related to the strength of the performance, which contributes in developing and improving level of performance". (3) It means that there are differences between the pretest and the posttest. The reason according to the researcher is that the tests are performed during the period of applying training curriculum to identify the changes on the physical and physiological potentials of the bikers so that they could be adopted in the next stages. (4)

Table (4) shows the results of the variables for the minimum significance among study groups. The comparison of weight variable of arithmetical mean between the first group and the second one is (0,954). The comparison between the first and the third groups is (1.931), the second and the third ones is (2.886) with significant results. Number of pulse variable has significance between group one and two by (1.090), the groups one and three by (2.000) and the groups two and three by (3.090). The diversity of bikers training units in the first two experimental groups create a kind of adaptation during the training programme. Some researchers see that the muscular fibers have the ability to produce much strength during changing the type of resistance in comparison to fixed resistance, which depends on fixed amount of resistance. So the motor units will increase as a result the ability of producing motor

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energy will increase. The systolic blood pressure variable between the first and the second groupshas insignificant effect due to the statistical approximate. But the researcher sees it significant result even if it does not achieve the expected level because the health and physiological aspects deal with numbers in contrary to the statistical side as (0.318). While the first and the third groups have significant result, the first experimental group and the control one by (1.000), the third and the second ones have significant result in comparison with the bicycle riders and the control group by (1.318). The researcher sees that the arithmetical means for the two experimental groups and the control achieved results and significance because whenever the training has more privacy, the effect will be greater on achievement. The study agrees a specialized study in the field of bicycles.

#### 4. Conclusions and recommendations:

4.1. The researcher concludes the following:

The prepared specialized programme has been developed

- Focus the efforts to achieve the aims of the training.

There are changes in some physiological aspects (no. of pulse, no. of breath and systolic blood pressure) in the two experimental groups and the control one.

#### 4.2. Recommendations:

- Perform a similar study on the female students at the college of physical education.
- Emphasize on distributing efforts according to repetition and groups between the two experimental groups in the future studies.

#### Appendix (1) Task Facilitation Letter

Republic of Iraq Ministry of Higher Education & Scientific Research Al-Qadisiya University College of Education Scientific Affairs Unit

Date: 25/9/2016

No.: 6748

## To: Al-Qadisiya University/ College of Physical Education and Sports Sciences **Task Facilitation Letter**

We would like you to facilitate the task of the lecturer **ALI AHMED NAJEEB** (PhD) who is one of our teaching staff at the college of education/ physical education unit to accomplish his two papers entitled "."

(signed and Stamped)

Assist Prof. Assist Prof. Satar Hameed Hamza

Dean Assistant for scientific Affairs

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Appendix (2) Health application for each student of the three groups

notes	Systolic blood pressure	No. of pulse	Height	Weight	age	N o.
	pressure					-1
						-2

Appendix (3) Supporting team

		tuni (e) supporting to			
Specialty	Dept.	Name	No.	Supporting groups	No.
Training physiology	College of physical education	Prof. Ahmed Abdulzahra	-1	1 <sup>st</sup> group supporting team (sport bike)	-1
Training physiology	College of physical education	Prof. Qais Saed	-2		
Bicycle training	College of physical education	Assist prof. Samir Raji	-1	2 <sup>nd</sup> group supporting team (bicycle)	-2
Physical training	College of physical education	Dr. Mohammed Hatim	-2		
Physiology	College of physical education	Prof. Falah Hasan	-1	Supporting team of taking pre and post	-3
Physiology and therapy	College of education	Assist prof. Ali Ahmed Najeeb	-2	measures for the three groups	
Physiology	College of medicine	Assist prof. Hikmat Adil	-3		

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Appendix (4) 8 weeks training programme on sport bike and bicycle

TD . 1	***		, ,				sport blke and bicycle	1	1
Total time	War min g up time	Rest among groups	No. of groups	Rest after each repetit ion	No. of repetio	stres	details	day	week
60 min.	3 min.	5 min.	3	2min.	1min.X	%60	Warming up for 27 min. before riding sport bike and bicycle for two groups. Performance then slow down	Sunda y	1 <sup>st</sup>
	3 min.	5 min.	3	2 min.	1min.X		Warming up for 27 min. before riding sport bike and bicycle for two groups. Performance then slow down	Tuesd ay	
	3 min.	5min.	3	2 min.	1 min.X 3		Warming up for 27 min. before riding sport bike and bicycle for two groups. Performance then slow down	Thurs day	
60 min.	3 min.	5 min.	3	2 min.	1min.X	%-60	Warming up for 27 min. before riding sport bike and bicycle for two groups. Performance then slow down	Sunda y	2 <sup>nd</sup>
	3 min.	5 min.	3	2 min.	1min.X		Warming up for 27 min. before riding sport bike and bicycle for two groups. Performance then slow down	Tuesd ay	
	3 min.	4 min.	3	3 min.	1 min.X 4		Warming up for 27 min. before riding sport bike and bicycle for two groups. Performance then slow down	Thurs day	
60 min.		4 min.	3	3 min.	1	% 60	Warming up for 24 min. before riding sport bike and bicycle for two	Sunda y	3 <sup>rd</sup>

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							Volume: 4, No: 2, July 2017-		
	3 min.				min.X 4		groups. Performance then slow down		
	3 min.	4 min.	3	3 min.	1 min.X 4		Warming up for 24 min. before riding sport bike and bicycle for two groups. Performance then slow down	Tuesd ay	
	3 min.	5 min.	2	2 min.	1 min.X 5		Warming up for 27 min. before riding sport bike and bicycle for two groups. Performance then slow down	Thurs day	
60 min.	3 min.	5 min.	2	2 min.	1 min.X 5	- 60 % 65	Warming up for 27 min. before riding sport bike and bicycle for two groups. Performance then slow down	Sunda y	4 <sup>th</sup>
	2 min.	5 min.	2	2 min.	1 min.X 5		Warming up for 28 min. before riding sport bike and bicycle for two groups. Performance then slow down	Tuesd ay	
	2 min	4 min.	2	3 min.	1 min.X 6		Warming up for 20 min. before riding sport bike and bicycle for two groups. Performance then slow down	Thurs day	
60 min.	2 min.	4 min.	2	2min.	1 min.X 6	- 60 %65	Warming up for 28 min. before riding sport bike and bicycle for two groups. Performance then slow down	Sunda y	5 <sup>th</sup>
	2 min.	4 min.	2	2min.	1 min.X 6		Warming up for 26 min. before riding sport bike and bicycle for two groups. Performance then slow down	Tuesd ay	
		4 min.		2min.		-	Warming up for 26 min.	Thurs	

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							Volume: 4, No: 2, July 2017-	Dec 2017	
	2 min.		2		1 min.X 6		before riding sport bike and bicycle for two groups. Performance then slow down	day	
60 min.	2 min.	4 min.	2	2min.	1 min.X 6	%70	Warming up for 30 min. before riding sport bike and bicycle for two groups. Performance then slow down	Sunda y	6 <sup>th</sup>
	2 min.	4 min.	2	2min.	1 min.X 6		Warming up for 30 min. before riding sport bike and bicycle for two groups. Performance then slow down	Tuesd ay	
	1 min.	3 min.	2	3 min.	1 min.X 7		Warming up for 18 min. before riding sport bike and bicycle for two groups. Performance then slow down	Thurs day	
60 min.	1 min.	3 min.	2	3 min.	1 min.X 7	%70	Warming up for 18 min. before riding sport bike and bicycle for two groups. Performance then slow down	Sunda y	7 <sup>th</sup>
	1 min.	3 min.	2	3 min.	1 min.X 7		Warming up for 18 min. before riding sport bike and bicycle for two groups. Performance then slow down		
	2 min.	4 min.	2	3min.	1 min.X 6		Warming up for 20 min. before riding sport bike and bicycle for two groups. Performance then slow down	Thurs day	
60 min.		5 min.	2	3min.	1 min.X	%60	Warming up for 23 min. before riding sport bike and bicycle for two groups. Performance then	Sunda y	8 <sup>th</sup>

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2				5	slow down		
min.							
	5 min.		3min.		Warming up for 28 min.	Tuesd	
					before riding sport bike	ay	
		2		1	and bicycle for two		
				min.X	groups. Performance then		
2				4	slow down		
min.							
	5 min.		3 min.		Warming up for 33 min.	Thurs	
					before riding sport bike	day	
		2		1	and bicycle for two		
				min.X	groups. Performance then		
2				3	slow down		
min.							

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