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METAPHOR AND ITS TYPES

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Abstract

This article provides information about metaphor and its types, the use of cognitive metaphors.

Keywords: Linguistic metaphor, metaphor, cognitive metaphors, extended metaphor, literary studies, image boundaries.

Istiora (from Arabic "to borrow") or metaphor (from Greek "to transfer") is the art of using a word in works in a sense other than its meaning, that is, in a figurative sense. This art is a type of transference of word meanings, which is based on similarity between things and events. In this respect, metaphor is close to the art of tashbih. It is often equated with tashbih kina, i.e. tashbih with the mushabbih removed. In literary studies, metaphor is stronger than metaphor. Metaphor is a means of artistic representation, metaphor. A metaphor is based on a similarity between 2 things. It consists only of similar and similar elements. Mas, cypress figure, beautiful eyes. In the metaphor, some characteristics of lions, tigers and other strong, courageous animals, the meanings of good and evil in the qualities of white and black are copied to emphasize certain human emotions (lion heart, white heart, black heart, etc.). Metaphor is something reflected in artistic works, an event, it is extremely important in the clear and vivid description of the events, in the vivid descriptions of the characters, and in increasing the attractiveness of the work. There are 2 types of metaphor: 1) open metaphor. For example, "A star beyond my reach, I see you in my dreams" (Abdulla Oripov). In this case, the beloved is likened to a "star". The like is omitted, and the like is given instead; 2) closed metaphor. For example, "The rest of the words were not enough" (F. Fyloom). In this the "words" are likened to man. Like is omitted and like is given.

Many approaches to the study of metaphor lead to the birth of many classifications. Different researchers distinguish different types of metaphors based on their approaches and criteria. Since ancient times, there are descriptions of some traditional types of metaphors:



1. A sharp metaphor is a metaphor that combines concepts that are far from each other.
2. A muted metaphor is one that is universally recognized and whose figurative character is no longer felt.
3. A metaphor-formula is close to a deleted metaphor, but differs from it in the impossibility of turning it into a larger stereotype and sometimes a non-figurative construction.
4. An extended metaphor is a metaphor that is implemented consistently over a large part of the message or the entire message.
5. Implemented metaphor involves dealing with a figurative expression without taking into account its figurative nature, that is, acting as if the metaphor had a direct meaning. The result of the implementation of the metaphor is often funny. According to the traditional classification proposed by N.D. Arutyunova. Arutyunova, metaphors are divided into:

- 1)Nominative consists of replacing one descriptive meaning with another and serves as a source of homonymy;[1]
- 2)Figurative metaphors that serve the development of figurative and synonymous means of the language;
- 3)Cognitive metaphors appear as a result of the shift of the matching of predicate words (meaning transfer) and form polysemy;
- 4)Generalization of metaphors (as a final result of cognitive metaphor), elimination of boundaries between logical orders in the lexical meaning of a word and stimulation of the emergence of logical polysemy.

Let's take a closer look at metaphors that contribute to the creation of images or images. In a broad sense, the term "image" means a reflection in the mind of the external world. Images in a work of art are a symbol of the author's thinking, his unique worldview, a bright symbol of the image of the world. Creating a vivid image is based on using the similarity between two objects that are far from each other, almost a kind of contrast. Objects or events should not be sufficiently similar to each other for the comparison to be unexpected, and sometimes the similarity may be very insignificant, imperceptible, provide food for thought, or completely absent. The boundaries and structure of the image can be almost any: the image can be conveyed through a word, phrase, sentence, superphrasal unit, it can occupy an entire chapter or cover the entire composition of a novel. However, there are other views on the classification of metaphors .



For example, J. Lakoff and M. Johnson distinguish two types of metaphors that are considered in relation to time and space: ontological, that is, events, actions, feelings, ideas, etc. a metaphor that enables 'rith. as a type of substance (consciousness is a being, the mind is a fragile thing) and directed or directed, that is, metaphors that do not define one concept in terms of another, but organize the whole system of concepts in an interrelated manner. to each other (happy - up, sad - down; conscious - up, unconscious - down). Orientational metaphors are related to spatial orientation, "up - down", "inner - outer", "central - There are contrasts such as "peripheral". Orientational metaphors give a spatial reference to the concept. Ontological metaphors include: metaphors of essence and substance and metaphors related to containers. Philip Wheelwright distinguishes two types of metaphors depending on the semantic movement - distribution or connection: epiphora and diaphora. The main function for epiphora is expressive (appeal to the imagination), for diaphora - suggestive (appeal to the senses).[2]

George A. Miller states in his classification of metaphors:

- 1) Nominal metaphors;
- 2) Predicative metaphor;

Rosenthal D.E. and Telenkova M.A. recognize that there are three types of metaphors:

- 1) A simple metaphor based on the approximation of objects or events by one of their common features.
- 2) A detailed metaphor built on associations of various similarities.
- 3) Lexical metaphor (dead, petrified, deleted), in which the transfer of the original metaphor is no longer noticeable.

As soon as a metaphor is implemented, separated from a number of other linguistic phenomena and described, the question arises about its dual nature: a language tool and a poetic figure. S. Balli, who was the first to contrast poetic metaphor with linguistic metaphor, showed the universal metaphorical nature of language. Now no one disputes the existence of two types of metaphors - artistic and linguistic metaphors. Sh.Bally, followed by G.N. Sklyarevskaya, distinguishes the existence of two types of metaphors - artistic and linguistic. The meaning of the term "artistic metaphor" is broader and it seems to include all the features that are reflected in other terms: individual creative character, occasional (as an identity), specific use of tropes. belonging to a type and others. As a result, purposeful and conscious aesthetic research, artistic metaphor is



studied in poetics as one of its main aesthetic categories. Linguistic metaphor is spontaneous and has its own characteristics of language, and is studied in linguistics as a complex problem related to lexicology, semasiology, nominal theory, psycholinguistics and linguistic stylistics. The dual nature of metaphor is a language tool and object. Cicero pointed out that "clothing, first invented to protect against the cold, later became used as a sign to decorate the body. The distinction and metaphorical expressions introduced for the lack of words are mostly for fun. used. From the point of view of research, we are faced with the question of what is primary - linguistic metaphor or artistic time. loses the author.

What is the main difference between linguistic and artistic metaphor?

N.D. Arutyunova notes the following characteristic features of artistic metaphor:

- 1) The harmony of the image and its meaning;
- 2) Contrast with trivial taxonomy of objects;
- 3) Actualization of "random connections";
- 4) Not to be returned to a direct paraphrase;
- 5) Synthetic, scattered meaning;
- 6) Allowing different interpretations;
- 7) Lack of motivation or volition;
- 8) Appeal to imagination, not knowledge;
- 9) Choosing the shortest path to the essence of the object.[3]

As for the linguistic metaphor, it is a ready-made element of the vocabulary: such a metaphor does not need to be created every time, it is often repeated in speech without the speaker understanding the figurative meaning of the primary words. The relationship between language and artistic metaphors The problem of "identity" is based on the problem of interrelationship between the common folk and the poetic language: recognizing the functional specificity of each of these phenomena, researchers interpret them in opposition to each other or in mutual unity. Interpreting artistic metaphor as speech and contrasting it with linguistic metaphor, V. N. Telia emphasizes the main differences between these types of metaphor as follows: in linguistic metaphor, associative links are objectified, they reflect the language experience of speakers. corresponds to subject-logical connections; the connotations that form a metaphor are determined by the use of a given word for syllable power; the connotations of speech metaphors, on the contrary, reflect individual, not collective, views of the world, so they are "subjective and random in relation to common knowledge".



There are significant differences between linguistic metaphors and artistic metaphors according to their lexical status. If the linguistic metaphor is an independent lexical unit that enters into relatively free semantic relations and is implemented in different lexical environments, the artistic metaphor does not have such lexical independence - it is always connected with its "own" context. V. N. Telia described the features of artistic metaphor context conditionality: artistic metaphor "comes" from a concrete context; it is born and exists in context, and decays with it; connotative symbols that create metaphors are directed only within the given lexical set. The question of the relationship between the language metaphor system and artistic speech can be solved in two ways according to the above: or the fundamental difference between linguistic and artistic metaphors. There are no differences, and these types of metaphors can be seen as interrelated. Linguistic and artistic metaphors must be recognized as a single object or the differences between them are sufficient to consider them as independent objects of research.

The above classifications of metaphors, in our opinion, do not contradict each other, because they use different classification symbols. In order to study the various aspects of metaphor more fully, we will consider the types of metaphors and dwell on the question of the role of metaphor in a number of other tropes, poetic and linguistic symbolism: image, symbol, personification as well as these. those directly related to metaphor: comparison, metonymy and metamorphosis.

Conclusion

As types of metaphor V.N. Telia, according to different authors, there are from 14 to 37 different types of metaphors, which shows the diversity of opinion in this field of science. Different researchers not only understand the types of metaphors differently, but also call them differently. There are two types of metaphors. It can be both a language tool and a poetic image. A metaphor inherent in the nature of language is called a language metaphor (YM). This linguistic phenomenon is a ready-made element of the vocabulary, and such a metaphor does not need to be created every time. Examples of NMs: iron discipline, harsh law, controversy raged. A metaphor that is a symbol of artistic speech and belongs to the category of poetics is called an artistic metaphor (HM), for example: Silhouettes of red hearts fall from maple trees all day long. We often use language metaphors in speech without realizing it. Artistic metaphors, on the other hand, are easier to spot because they are more imaginative.[4]



Some researchers consider language metaphors to be of four types; for example, N. D. Arutyunova in the book "Language and Human World" [Arutyunova 1998: 35-67] mentions the following types of NM: 1. Nominative metaphor (or "determining" metaphor) a metaphor that derives a new name from the old lexicon. It works in the field of defining objects of reality, replacing monotonous (descriptive) meaning with another. This word serves to transfer the name, to indicate the properties of already existing realities. For example: sleeve (river), sheet (paper), eyeball, ear. Such a transfer, which creates homonymy, is usually based on the similarity of objects with a function or an external, obvious sign. A nominative metaphor creates nicknames and nicknames for individuals, which can later become proper names (for example: Box, Tick, Owl). This type of metaphor is mainly descriptive and appeals to vision rather than intuition like figurative metaphor. 2. Figurative metaphor is a metaphor in which concrete nouns are used instead of abstract nouns.

It describes a certain object and introduces a figurative (figurative) meaning into its semantic structure, for example: His eyes are cornflowers - his eyes are cornflowers, His hair is pure gold. Such a metaphor helps the development of synonymy. The third type of metaphor distinguished by N. D. Arutyunova is cognitive (or predicate, indicative) metaphor. This metaphor applies "foreign" characters to an object, that is, characters, properties, and states of another class of objects. For example: a sharp collision, howling wind, rustling trees. Cognitive metaphor serves as a source of polysemy. And finally, the fourth type of NM is a generalizing metaphor (as a final result of a cognitive metaphor), a metaphor that erases the boundaries between logical orders in the lexical sense of the word, for example: a soft mattress and a soft voice, a hard floor and a strong will. Such a metaphor leads to the generalization of concepts and creates logical polysemy. N. Unlike D. Arutyunova, G. N. Sklyarevskaya, in turn, calls the nominative metaphor. genetic metaphor and figurative metaphor - alive. He also sees them not as types (or kinds) of linguistic metaphors, but as semantic phenomena adjacent to ML, i.e., similar and correlated with linguistic metaphors, but without their own characteristics. He draws a crucial distinction between 'living' and genetic metaphors, as well as common language and artistic metaphors.



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THE EFFECT OF A THERAPEUTIC APPROACH USING YOGA EXERCISES IN REDUCING OSTEOPOROSIS FOR WOMEN AGED (40-45) YEARS

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ABSTRACT

The research aims to: Preparing a therapeutic approach using yoga exercises that is suitable for the research sample. And to identify the effect of the therapeutic approach in measuring osteoporosis in the research sample. And to know the effect of the therapeutic approach on estrogen and vitamin D. And to identify the effect of the therapeutic approach on the muscular strength of the research sample. The researcher used the experimental method with one group (pre-post) on a sample of women with osteoporosis at the age of (40-45) years attending the Medical City Hospital (Baghdad / Rusafa). Then the medical examination was carried out in the Medical City Hospital (Baghdad) by the medical staff, as the sample was clinically examined, then osteoporosis was examined with the (DEXA) device, and a blood sample was taken to examine vitamin (D3) and estrogen, and the muscle strength of the fist, back and legs was measured. They were introduced to the therapeutic curriculum for a period of time (12) weeks, at the rate of three units per week, and after completing the therapeutic curriculum, post-tests were carried out and data were entered into the statistics for treatment. The research sample . The therapeutic approach using yoga exercises had an impact on the development of the hormone progesterone and vitamin D3, which led to the recovery of the sample from osteoporosis. The therapeutic approach using yoga exercises had a great effectiveness in developing muscular strength in both the strength of the right and left fists, back strength and strength of the legs. The application of exercises on the injured did not leave any negative effects on them, but they got positive effects and rapid improvement.

Keywords: therapeutic approach, yoga exercises, osteoporosis.

Introduction to the research and its importance:

Human medicine was able to treat and control all transitional, infectious and even epidemic diseases, but it stood helpless in the face of diseases resulting from



lack of movement, lethargy and laziness. The worst thing that Iraqi women go through is lack of movement and lack of exercise. Customs, traditions and the clan system impose on the girl from her young age not to go out or play So he made her confined to the house, as well as the presence of technology such as computers, mobile phones, and television. All these things made her a lazy person and lacked movement. Movement or sports activity is very necessary because it is the only way to activate growth hormone and build bones. This hormone is activated by movement and sports, and their absence will make the body vulnerable to osteoporosis. Poor building of bone tissue from the inside.

Osteoporosis is a deficiency in bone density and strength that may make it vulnerable to fractures and can affect any bone in the body, but the hip joint, wrist and spine are the most vulnerable areas. Women are more susceptible to osteoporosis than men, as women at the age of forty years are exposed to 35% of the compact bone and 50% of the spongy bone in the skeleton during their lifetime, while men are exposed to about two-thirds of this percentage, the reason for women losing bone density due to menopause And the lack of estrogen, but sometimes the causes are due to disease, medications, or lifestyle. Also, there are some women who experience menopause at an early age due to a lack of estrogen. This type of women is more susceptible to osteoporosis, and this condition is the absence of menstruation before menopause , Caused by (loss of appetite, severe weakness, vitamin D deficiency that is associated with calcium deficiency and smoking).

Therapeutic exercises are a type of exercise that is given to improve the general muscular performance of the body and strengthen the muscles, bones, joints and ligaments. These movements are performed according to a planned scientific basis and are described according to the condition of the injured or the patient. The aim is to stimulate or restore functions and maintain the body position and its return to its normal state. .

Yoga exercises are the oldest system among many fitness systems, and it means (union), that is, uniting the body, mind, and spirit. And that the system of yoga exercises is to maintain health and avoid diseases, as many doctors conducted scientific medical research, and they witnessed the ability of yoga to treat.

It is certain that yoga improves the ability to breathe deeply and soften the whole body, especially the joints and vertebrae of the back, as yoga has a wondrous physiological effect, as it transforms stagnant congestion into ongoing congestion, which means an abnormal flow of blood in a specific position of the body. Hence



the importance of research in preparing a treatment program using therapeutic yoga exercises to reduce osteoporosis that occurs to women at an early age due to life circumstances and its fluctuations to come up with results that benefit society and treat this disease.

Research Problem :-

Osteoporosis is a major health problem all over the world and in Iraq in particular as a result of (menopause, menstrual disorders, severe thinness and short stature, lack of movement and sports activity, vitamin D deficiency and thus calcium deficiency, smoking, drinking, taking some medications) The researcher formulated her problem in the form of questions, which are:

- 1- Will the therapeutic approach using yoga exercises affect the reduction of osteoporosis for women aged 40 to 45 years.
- 2- Does the therapeutic approach have an effect on the muscular strength of the research sample.
- 3- Will the curriculum affect estrogen and vitamin D for the research sample?

Research Aims :-

- 1- Preparing a therapeutic curriculum using yoga exercises that is compatible with the research sample.
- 2- To identify the effect of the therapeutic approach in measuring osteoporosis in the research sample.
- 3- To identify the effect of the therapeutic approach on estrogen and vitamin D.
- 4- Identifying the impact of the therapeutic approach on strength

Research Hypotheses :-

- 1- There are statistically significant differences in the pre and post tests in measuring osteoporosis, estrogen and vitamin D in the research sample.
- 2- There are statistically significant differences in the pre and post tests in the power variables of the research sample.

Research Areas:

Human domain: A sample of women with osteoporosis at the age of (40-45) years

Time range: From 2/3/2022 to 6/5/2022

- Spatial field: - Medical City Hospital (Baghdad).

Research methodology and field procedures:



Research Methodology: The researcher used the experimental method with one group (pre-post).

The same research: - 14 women with osteoporosis at the age of (40-45) years, who attended the Medical City Hospital (Baghdad / Rusafa).

Means, tools and devices used: - Dynamometer device for measuring muscle strength, (DEXA) device for measuring osteoporosis, centrifuge device for separating blood components, (14) yoga mats, (28) sterile tubes for preserving blood, (28) syringes, tape Height measurement, medical scale for weight measurement.

Field research procedures: The medical examination was carried out in the Medical City Hospital (Baghdad) by medical staff, as the sample was clinically examined, then osteoporosis was examined with the (DEXA) device, and a blood sample was taken to examine vitamin D3 and estrogen.

Tests and measurements used:

1- Medical tests:

- A- Osteoporosis Test (DEXA)
- B- Vitamin D3 screening test
- T- Estrogen screening test

2- Physical exams :

- a- Measuring grip strength
- B - measuring the strength of the muscles of the legs
- T - measuring the strength of the back muscles

The exploratory experiment: The researcher intended to conduct it on a sample of (2) injured women from within the research sample on Wednesday corresponding to 2/3/2022 at exactly ten o'clock in the morning in the Medical City Hospital, Department of Physiotherapy, to find out the appropriateness of the physical tests and the appropriateness of the exercises and the level of the Research sample and find out the efficiency of the assistant work team.

Pre-examinations: They took place on Sunday, 13/3/2022 at 10:00 a.m., for the sample, to be examined in the same aforementioned hospital.

The main experiment: - The researcher chose the exercises that are suitable for the research sample, based on scientific sources and the opinions of specialists in treatment and rehabilitation, as well as joint and orthopedic doctors, work on the therapeutic approach began on Monday, 3/14/2022, and ended on Saturday, 4/5/2022.

The duration of the therapeutic curriculum is (12) weeks, with three units per week (Saturday, Monday, Wednesday)

The time for the treatment unit ranged between (15-20) minutes.

- Total units 36 units.

- The therapeutic curriculum in one unit included (warm-up - the main part (yoga exercises) - and cool-down).

The curriculum was characterized by gradual repetitions (3-5) and groups (2-3) and rest between repetitions according to the principle (1-1) and between groups (1-3).

- The researcher took into account giving exercises from easy to difficult according to the level of the sample.

- The performance of the exercises must be with the ability of the patient or not to make things difficult for her.

- Practicing yoga exercises outdoors and under the sun.

Exercises used in the therapeutic approach:

Tree Pose, Eagle Pose, Warrior Pose, Triangle Pose, Dog Pose, Seated Front Bend, Thunderbolt Pose, Hero Pose, Closed Corner Pose, Half Lotus Pose, Lotus Pose, Lying on the Back with Legs Extended, Lying with Legs Flexion, fish pose, snake pose, wreath pose, resting pose, fetus pose, corpse pose

Post-tests: They were conducted on Monday, 6/5/2022 at ten o'clock in the morning, and were conducted according to the pre- tests with the same conditions and specifications.

Statistical means:

SPSS statistical bag was used

Presentation and discussion of the results:

Presentation and discussion of the results of pre and post medical tests for the research sample:

Schedule (1)

It shows the results of the pre and post tests of the medical tests of the research sample

Variables	Measure- ment	pretest		post test		Calculated T	Statistical significance	Moral Connotation
		M	S	M	S			
Osteoporosis	g/cm ²	3.120	0.493	1.570	0.979	6.041	0.000	Moral
Vitamin D3	nmol/L	6.400	2.170	39.400	6.363	14.725	0.000	Moral
progesterone	ng	2.300	1.418	5.900	1.969	13.500	0.000	Moral

Below the level of significance (0.05) and degrees of freedom (13)

Table (1) shows that there are significant differences in all medical tests (osteoporosis, vitamin D3, progesterone) with statistical significance between the pre and post tests and in favor of the post test. This indicates the effectiveness of yoga exercises in reducing the severity of osteoporosis and improving the level of osteoporosis, and this is indicated by Kreighton (9: 33).

The researcher also believes that yoga is a moderate, regular sport that helps in the treatment of osteoporosis, and this is consistent with (Essam Al-Hasanat: 6: 57) "Regular exercise helps in increasing bone density in children, youth and middle ages if they are exposed to osteoporosis."

Vitamin D3 is one of the important things to be available, as one of the main causes of osteoporosis is vitamin D3 deficiency. Therefore, the researcher conducted yoga exercises in the open air and under the sun in order for the sample to benefit from vitamin D3 from sunlight to compensate for the deficiency, in addition to taking vitamin D3 tablets according to the doctor's prescription, and this It helped with yoga exercises in improving the condition of patients with osteoporosis, and this was confirmed by (Mustafa Shuhayb: 8: 24) On health, and also confirmed that vitamin D can be obtained from sunlight, which is produced by the skin.

Any deficiency in the progesterone hormone causes bone thinning, and this appears clearly in women when approaching menopause or before (10 years) of menopause due to women's poor fertility. The researcher believes that yoga exercises that can increase the benefits gained by doing breathing exercises help in exercises Yoga and the stimulating sensation that tries to fix the imbalance in all parts of the body, which can be addressed by the movements that are



implemented in many yoga positions, so it affected the increase in the proportion of the hormone progesterone, and this was confirmed by (Byaarga Kamar: 1: 255) “The practice of yoga affects the hormone progesterone in a way It is positive and works to regulate the menstrual cycle, and progesterone levels can be increased in case the body produces little.

The American Society also confirmed (that moderate exercise can increase progesterone levels and, with the help of estrogen, they burn fat, and that any moderate exercise can help control the level of progesterone, such as sports (walking, swimming, yoga, aerobics) (Salwa Shafiq : 3: 56).

Presentation and discussion of the results of pre and post physical tests for the research sample:

Schedule (2)

It shows the results of the pre and post tests of the physical tests of the research sample

Variables	Measure-ment	pretest		post test		Calculated T	Statistical significance	Moral Connotation
		M	S	M	S			
Right fist strength	kg	9.00	1.490	16.100	4.175	6.988	0.000	Moral
Left fist strength	kg	8.800	1.988	15.400	3.062	13.591	0.000	Moral
back strength	kg	11.600	2.221	23.300	2.983	19.591	0.000	Moral
Legs strength	kg	18.00	22.800	92.76	4.732	6.896	0.000	moral

Below the level of significance (0.05) and degrees of freedom (13)

Table (2) shows that there are significant differences in all tests (right fist strength, left fist strength, back strength, and two legs strength) with statistical significance between the pre and post tests and in favor of the post test. The researcher attributes the reason for these differences to the increase in strength in relation to the tests through yoga exercises, which are done by taking the individual to a certain position through a slow movement, then steadfastness in this position for a period of seconds, up to five minutes, and then returning to the initial position, with repetitions of (3-10). Sometimes it will lead to the strengthening of the muscles, and this is confirmed by (Richard: 2: 15-16) that yoga exercises work on certain muscle groups and for a long time lead to an increase in muscle strength in general. (Sami'a Khalil: 4: 36) indicated that “muscular strength can be obtained through muscular work. And (Mahmoud Al-Malt: 7: 29) confirms that “when performing yoga exercises in different positions, with slow, relaxed movements and a few repetitions, and in a regular rhythm with breathing, And with a coordinated performance with balance, and thus it will affect the central nervous system, which in turn affects the muscular system,

especially in the strength of the muscles of the abdomen, back, midsection, legs and arms.” (Aida Ahmed Al-Rawajih: 5:56) emphasized that “yoga exercises and through organized training, which in turn lead to To increase the efficiency of the muscular system and can be developed to be able to produce muscle force, whether mobile or fixed.

Conclusions and Recommendations:

Conclusions:

- 1- The therapeutic approach using yoga exercises worked to improve the value of the ratio of osteoporosis to normal among the research sample members.
- 2- The therapeutic approach using yoga exercises had an impact on the development of the hormone progesterone and vitamin D3, which led to the recovery of the sample from osteoporosis.
- 3- The therapeutic approach using yoga exercises had a great effectiveness in developing muscular strength in both the strength of the right and left fists, back strength and strength of the legs.
- 4- The application of the exercises on the injured women did not leave any negative effects on them, but they obtained positive effects and a rapid improvement.

Recommendations:

- 1- Directing programs directing the importance of practicing yoga exercises to reduce osteoporosis in women by the Ministry of Health.
- 2- Awareness should be spread and women who are at risk of osteoporosis should be educated about the instructions and advice they should follow and what they should avoid.
- 3- Emphasis on not giving strenuous physical loads to patients with osteoporosis.
- 4- Women should pay attention to exercise before and after menopause and to prevent osteoporosis.
- 5- The necessity of conducting a periodic examination to know the percentage of osteoporosis from time to time.
- 6- The need to conduct research and studies in this field on different samples and other ages.



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MODERN MODULATION TYPES FOR 5G WIRELESS COMMUNICATION SYSTEMS

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Abstract

The fourth generation (4G) mobile communication network has been introduced in almost all countries. However, with the development of wireless mobile systems and the increase in the types of services, some problems arise in technologies that cannot support 4G. Today, technologists all over the world have started implementing 5G to meet the expectations of users. Index modulation is seen as a promising modulation in 5G. In this work, the characteristics of index modulation used in 5G are considered.

Keywords: LTE, OFDM, MIMO, index modulation, space domain index modulation.

Introduction

Wireless communication is the fastest growing segment of the economy. From 1980 to the present, wireless systems have evolved into 1G, 2G, and 3G. Currently, long-term evolution (LTE) as 4G systems are steadily expanding in global markets. By supporting several key technologies, namely multiple input multiple output (MIMO) and orthogonal frequency division multiplexing (OFDM), cooperative communications, etc., 4G systems are capable of 1 Gbps for low



mobility. up to 100 Mb/s and provides high mobility data speeds. MIMO, which uses multiple antennas at the transmitter and receiver, increases channel capacity without increasing transmission power. Reports show that in 2012, telecommunications infrastructure and equipment accounted for 25 percent of the average annual energy consumption by information and communication technology industries.

The Main Part

5G networks also have some weaknesses, such as high peak-to-average power ratio (PAPR) and susceptibility to inter-carrier interference (ICI). The PAPR problem arises from repeating frequency-uncorrelated inputs, which becomes more severe as the number of FFT points increases. ICI accompanying orthogonality violations is further exacerbated by Doppler effects. Therefore, it is necessary to find other effective schemes for OFDM that can solve these problems. Index modulation is an emerging signal modulation concept developed for, but not limited to, MIMO-OFDM communications. Index modulation modulates signals through some medium index, which can be real or virtual, such as the antenna, frequency carrier, and subcarrier. For example, by time interval, space-time matrix and antenna activation. Indexes are set to transmitted or received signals and typically consume little or no power at all. This means that the solution to the problems between spectral efficiency and energy efficiency can be achieved by index modulation. In addition, deactivating some OFDM subcarriers for index modulation significantly alleviates PAPR and ICI problems. These advantages make index modulation a competitive candidate for 5G wireless communication.

Each carrier can determine its next time slot behavior, i.e. transmission or idle, by decoding the signal sent by the source node and transmitting additional information to the destination node [1]. The circuits in [1, 2] perform index modulation by the transmitter. In fact, the concept of SM can be extended to the receiving side as well. In these works, in favor of zero forcing (ZF) or minimum mean square error (MMSE) precoding, SM (PSM) precoding is proposed, which activates one receiver antenna and transmits additional data per time slot. PSM is shown to outperform transmitter-side SM schemes and classical MIMO schemes for CSIT and multiple RF chain requirements. Based on its advantages, many works related to PSM have also been proposed [1-3].

Space-time domain index modulation methods require the joint use of space and time resources for index modulation. In this case, the popular space-time keying (STSK), Trellis-coded spatial modulation (TCSM), space-time block-coded spatial modulation (STBC-SM) and differential spatial modulation (DSM) can be used.

In [4], one of the dispersion space-time matrices Q is selected for transmission in each communication period, thereby transferring additional $\log_2(Q)$ bits to the information bits carried in the modulated symbols by matrix selection. By properly choosing the number of dispersion matrices, the size of the modulation scheme, and the number of transmitting and receiving antennas, STSK achieves a flexible balance between increasing diversity and increasing multiplexing. In addition, unlike the classical SM scheme, which only achieves received diversity, STSK also transmits the result.

To use the STSK potential, a generalized STSK (GSTSK) scheme was developed, which activates the P matrices from the Q dispersion matrices for transmission [5]. The above-reviewed works face the common problem that determining the optimal ML results in high computational complexity, especially for high-order modulation or a large number of transmit antennas. To solve this problem, researchers focused on designing low-complexity detectors for STSK and GSTSK systems [6-11].

DSM is proposed to avoid channel estimation difficulties in 5G communication systems. The main idea of DSM is to use time and space together to generate square unitary space-time matrices. Therefore, in traditional square DSM, the time interval in each transfer matrix is the same.

A traditional point-to-point DSM link has a signal-to-noise ratio (SNR) of 3dB while maintaining the data rate. Table 1 summarizes the results obtained by scientists on DSM.

Table 1. History of Differential Spatial Modulation (DSM).

Authors	Contribution
Bian et al.	The first proposed DSM, which completely abandons any CSI at the transmitter or receiver.
Wen et al.	DSM performance with 2 transmitting antennas is evaluated.
Li et al.	USA communications use DSM.
Bian et al.	It showed more results by exploring the DSM in detail.
Xiao et al.	A low-complexity detector for DSM that operates on the basis of set symbols.



Wen et al.	Development of a low-complexity near-ML detector for DSM that appeals to the idea of Viterbi decoding.
Li et al.	A detector for DSM using sphere decoding is designed.
Zhang et al.	For DSM, two transmission variants were used.
Rajashekar et al.	A full-diversity access method for DSM with independent transmitting antennas is proposed.
Zhang et al.	A prestructured auxiliary DSM (PDSM) scheme is proposed.
Xu et al.	A self-interference cancellation scheme for full-duplex systems using the DSM concept is proposed.
Li et al.	Antenna activation orders coded with gray codes.
Zhang et al.	A dual-core hybrid DSM (DH-DSM) scheme was proposed.

Conclusion

The rapid growth of wireless communication systems services requires the use of modern means of communication and the 5G network. It should be noted that the currently used modulation methods multiplexing (MIMO-OFDM) paradigm based on Multiple-Input Multiple-Output Orthogonal Frequency Division Multiplexing (MIMO-OFDM) paradigm, unfortunately, cannot meet this requirement. MIMO modulation achieves high spectral efficiency for the configuration. It leads to unsatisfactory energy efficiency due to high power antennas. Due to the development of new technologies, there is a great demand for index modulation.

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LEGAL STATUS OF THE ROAD PATROL SERVICE OF THE INTERNAL AFFAIRS

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Annotation:

In this article, the legal basis of the road patrol service of the internal affairs bodies, its legal support, the reforms implemented in the field, the analysis of the normative legal documents on the subject, as well as the scientific and practical proposals and recommendations to overcome the existing problems in the field are reflected .

Key words: road, patrol, military units, post, road patrol service, regulator.

Annotation: This article reflects the legal framework, the legal support of the road patrol service of the internal affairs bodies, the reforms carried out, the analysis of legal acts on the topic under study, as well as scientific and practical proposals and recommendations for eliminating existing problems in this area.

Keywords: road, patrol, construction units, post, road patrol service, regulator.

In our country, a comprehensive system has been created for establishing stability, peace and tranquility, ensuring unconditional observance of human rights and freedoms, maintaining public order, ensuring the safety of individuals, society and the state, and preventing crimes, in which internal affairs bodies play an important role.

Currently, in connection with the rapid development of the administrative-territorial units of our republic, there is a need to effectively ensure public order and safety in its central streets and other public places using forces, means and methods that can meet the requirements of the present time.

Unfortunately, for the last 15-20 years, due to the wrong approach to maintaining public order and security, this important issue has been neglected [1]. Therefore, on the initiative of the head of the state, on the basis of the laws adopted in recent



years, significant work was carried out aimed at improving the activities of internal affairs bodies to maintain public order and ensure security.

Including, the activities of the structural structures of the internal affairs bodies engaged in this activity were reorganized based on the requirements of the time Organization of the activities of the ranks of the DYKKH YPH ranks, which occupy an important place among the subjects of maintaining public order and ensuring security of internal affairs bodies, based on the needs of the times, clearly defining and dividing its main tasks and functions, as well as strengthening their role in ensuring security in the streets and other public places. became one of the important directions.

In fact, public transport and public transport is one of the important areas of ensuring legality and law and order in society, and the task of carrying out this activity is entrusted to a number of subjects.

On this topic, V.V. Gordiyenko, "public order and public security bodies include: patrol-post service and road patrol service units of the Internal Affairs bodies, National Guard units, military personnel, including other employees of the Internal Affairs bodies invited to conduct public events [2].

Just as each participant of administrative-legal relations has its own legal status, the ranks of YPX units have also formed their own legal status during the past period [3]. In our opinion, in order to fully understand the legal status of YPX ranks, first of all, it is appropriate to deeply understand the meaning of the concepts of "patrol", "post", "road patrol service" and "road patrol service ranks". The word "patrol" is derived from the French word "patrouille", which means "guard", "guard", and according to its content, it means a group of armed people or a military aircraft, a ship, etc., placed to ensure the security of a certain area and maintain order [3].

The word "post" is also derived from the French word "poste", which means "placed in a certain place" and, according to its meaning, means "a place assigned to a guard or a group of guards for guarding and defense" [4].

Different definitions of the concept of "road patrol service" and different interpretations of its essence are observed in regulatory and legal documents, legal literature, and conducted scientific research works. In particular, in some legal literature, this concept is defined as "a service that provides administrative-legal protection of the interests of individuals, society and the state from any criminal, administrative and other non-social aggressions in the country and its administrative-territorial units" [5].



The road patrol service is part of the General Directorate of the Road Traffic Safety Service of the Public Safety Department of the Ministry of Internal Affairs of the Republic of Uzbekistan.

It can be seen that this definition given to the "road patrol service" has a general character, and the directions, types and composition of the service are not clearly stated in it.

In some legal literature, there are cases of using the term "road patrol service" in two different meanings: the first is the activity of special units of internal affairs bodies that maintain public order and security, and the second is a set of technical means, parts and units that maintain public order [6].

1 of 2018 of the Cabinet of Ministers of the Republic of Uzbekistan "Y'ol - patrol" in December service employees road users _ _ _ with mutually relations h amda special from devices use order about _ _ the charter on the approval of VMQ No _ _ Decision No. 975 provides the following important concepts in the field of road safety:

road traffic - a set of relationships that occur during the movement of people and cargo with or without vehicles on the roads;

road user - a person directly participating in the traffic process as a driver, passenger or pedestrian;

road patrol officer - an employee of the internal affairs body authorized to control, manage and regulate the movement of road users;

traffic accident — an event that occurred during the movement of a vehicle on the road, caused the death of citizens or harm to their health, damage to vehicles, structures, cargo or other material damage;

ensuring road traffic safety is an activity aimed at preventing the causes of traffic accidents and reducing the severity of the consequences of such accidents. In accordance with the current regulatory legal documents, a goal-oriented definition of the concept of "road" is given, based on which **a road** is a land area or surface of an artificial structure built or adapted for the movement of vehicles and used for the same purpose. Roads include highways (public and departmental highways), streets and sidewalks of cities, towns, and rural settlements, as well as urban electric transport routes [7].

In addition, **the regulator** is an employee of the State Road Safety Service of the Ministry of Internal Affairs of the Republic of Uzbekistan (hereinafter - DYHXX), an officer of military vehicle control bodies, who is performing his official duties and has the authority to regulate traffic using the signs provided for in these Rules



and directly employees of the road use service, railway crossings and left crossings, and public representatives. The fact that the regulator must have a special uniform and (or) a recognizable sign (armband, badge, red beacon, red light or flag) [8] is reflected in the normative legal documents, which indicates that the activities of this field are legally guaranteed.

As we can see, the lack of a specific definition of the term "Road Patrol Service" in the above-mentioned decision requires independent researchers and researchers to provide their own definitions.

In our opinion, **the "Road Patrol Service"** means protecting the health and property of road users, protecting their legal rights and interests, as well as the interests of society and the state, ensuring the safe and uninterrupted movement of motor vehicles, crimes in the field of road safety and administrative prevention of offenses and performance of other duties assigned to internal affairs bodies.

At the same time, a number of systematic works aimed at improving the activities of the road patrol service were carried out.

Including:

- district (city) authorities are given the right to install special automated photo and video software-technical devices that record violations of traffic rules on the highways in their territories. 30% of the amount of the fine for the violations recorded by these software and technical means is directly directed to the local budget of the district (city), and these funds are used for digitalization of road traffic, development of road infrastructure, as well as additional staff of road patrol service workers [9].

- According to the results of the quarterly work evaluation, a one-time cash bonus in the amount of up to 50% of the position salary is applied to the employees of DYHXX YPX whose activity is found to be effective [10].

- In order to ensure safety in public places excluding the "human factor", road patrol and post-patrol service personnel were provided with 6,100 "body cameras", 179 breathalyzers, and tablets recording 6,514 offenses [11].

YPX cooperates with other divisions of internal affairs bodies, law enforcement and other state bodies, as well as public councils, civil society institutions, mass media and citizens in accordance with the established procedure on issues related to its activities.

The Traffic Safety Directorate of the Department of Public Safety includes the following units of the Highway Patrol Service:



- road patrol service brigade of the traffic safety department of the General Department of Internal Affairs of the city of Tashkent;
- road patrol service battalions (detachments) of the Ministry of Internal Affairs of the Republic of Karakalpakstan and the internal affairs departments of the regions;
- Road traffic safety departments (departments, groups) of district (city) internal affairs departments (departments) and regional internal affairs departments of the Ministry of Internal Affairs of the Republic of Karakalpakstan.

In agreement with the Ministry of Internal Affairs of the Republic of Uzbekistan, in order to monitor special cargo, special vehicles and convoys, as well as to affect the rapid situation in the framework of traffic safety, to prevent crimes related to vehicles, in accordance with the procedure established by law, the General Department of Road Traffic Safety of the Ministry of Interior, Republic of Korakalpakistan A battalion, division, squad, platoon, group can be formed under the Ministry of Internal Affairs, the main department of internal affairs of Tashkent city, and the traffic safety departments of regional departments of internal affairs.

The following are the main tasks of the General Department:

- Comprehensive and systematic analysis of information on traffic safety, taking into account the state of road transport infrastructure, dynamics of traffic incidents, violations of traffic rules, road congestion, technical condition of vehicles, as well as the causes and conditions of problems and shortcomings in this field - elimination of conditions;
- organizing and coordinating the activities of traffic safety units of internal affairs bodies to deal with traffic accidents and violations of traffic rules;
- organization of ensuring traffic safety, including prevention and control of violations of traffic rules, prevention of traffic accidents and traffic congestion, search and identification of persons involved in the commission of offenses;
- to organize mutual cooperation with other departments of internal affairs bodies, state bodies and institutions of civil society, as well as conduct open dialogues with the population on the issues of ensuring road safety;
- is to develop proposals for the further improvement of legislation, law enforcement practice, as well as its forms and methods [12] related to ensuring road safety.

In turn, the following main tasks are performed by the General Directorate :



–In accordance with the legislation of the Republic of Uzbekistan, the organization of special inspection, control and authorization functions in the field of YPX

–Taking into account the performance indicators of the YPX service, storing it in information databases;

–Leading the introduction of information technologies in YPX activities.

Regional departments in turn:

- In accordance with the legislation of the Republic of Uzbekistan, organizes and implements cases of administrative violations.

–participates in maintaining public order;

- YPX organizes the work of information databases;

Functionally, YPX units are divided into the following groups:

1) fast-moving teams participate in the elimination of emergency situations, participate in the regulation of traffic during public events

2) Groups to ensure safe and unhindered passage through special-purpose motorcades, groups participating in ensuring public order and public safety during passage through special-purpose motorcades [13].

It is appropriate to define the following priorities aimed at further improving the activity of the road patrol service:

first of all Establishing the legal status of road traffic participants, introducing a special educational system aimed at increasing their legal knowledge;

secondly, it is desirable to improve the legal mechanisms of prosecution of pedestrians, especially children and young people, for violating traffic rules;

thirdly, there is a need to create a single legal basis that directly regulates the activities of road patrol service units. In this way, to determine the specific tasks and functions of the military units of the Central, regional and lower levels of the National Army;

fourthly, it is appropriate to register some departmental orders and decisions in the activity of the Ministry of Justice from the database of registration of normative and legal documents of the Ministry of Justice;

fifthly, in order to ensure the correct implementation of the effective use of the forces and means of the YPF, there is a need to increase one YPF staff unit at the scale of each district.

We believe that the above suggestions and recommendations will contribute to the development of the field. We hope that as a result of the views of scientists in the activity of road patrol units and the scientific research conducted by



researchers, the points that have not yet been reached in the field will be studied, and the work done in this regard will bear fruit.

ABBREVIATIONS

MIA - Ministry of Internal Affairs;

DYHXX – State Traffic Safety Service;

YPX – Road Patrol Service;

JTS and HT – maintaining public order and ensuring safety;

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ORGANIZATION AND CONDUCT OF LABORATORY WORK IN TEACHING THE METHODOLOGY OF SOCIOLOGICAL RESEARCH

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Abstract

This article provides information on the methods of organizing and conducting laboratory training as a methodical recommendation for the practical application of the theoretical knowledge obtained for the formation of knowledge, skills and skills of students in the field of methodology of sociological research .

Kalit soʻzlar : Sotsiologik tadqiqotlar, nazariy bilimlar, seminar va amaliy mashgʻulotlari, laboratoriya tashkil qilish, mavzuni tanlash, tadqiqot mavzusining dolzarbligi, tadqiqot maqsadi, vazifalari, ob'ekt, predgiezining, interpretatsiya larningilipotshiqirtadir.

Abstract: This article provides information on the methods of organizing and conducting laboratory classes as a methodological recommendation for the practical application of the theoretical knowledge gained for the formation of knowledge, skills and abilities of students in the field of methodology of sociological research.

Keywords: Sociological research, theoretical knowledge, seminars and practical classes, organization of the laboratory, choice of topic, relevance of the research topic, research goal, tasks, object, subject, operationalization of interpretations, research hypotheses.

Abstract: This article provides information about the methods of organizing and conducting laboratory training as a methodical recommendation for the practical application of the theoretical knowledge obtained for the formation of knowledge , skills and abilities of students in the field of methodology of sociological research.

Key words: Sociological research, theoretical knowledge, seminar and practical training, laboratory organization, topic selection, relevance of the research topic,



research goal, tasks, object, subject, operationalization of interpretations, research hypotheses.

Sociological studies methodology of sociology another to the fields relatively complicated science that it was for basically this science he is in school theoretical knowledge practical - methodological in terms of to explain Demand does _

In theoretical lessons, the teacher tries to theoretically explain scientific knowledge to students on topics . Students' knowledge is expanded by using question-and-answer and discussion methods among students . In the course of the seminar , students independently form new knowledge on the subject using the Internet and additional literature .

It is known that currently the information resource center of family educational institutions is in a situation with the problem of literature, so students cannot find the necessary resources . As a result, they use electronic textbooks through Internet networks. There are not enough electronic resources on the Internet in Uzbek either. The problem of many students is that they do not know the language . However, there are translation services for Internet users . Therefore, even if it is not difficult for students to get sources from foreign literature , it is observed that their time is spent on translation. As a result, it can be observed that students come to the seminar without getting enough information to play . In fact, students should prepare for the seminar .

of the methodology of sociological research study practical exercises in order to acquire theoretical knowledge and thoroughly prepare for seminar classes . In practical training , students are expected to be able to apply the learned theoretical knowledge in practical activities . In practical training , students will learn about the importance of science, its application areas , the emergence of problems, the study of social problems , the development of programs for their research, the methods that can be used in the study of problems, implementation techniques, the ability to define hypotheses, and conduct sociological research. selection of places, selection of respondents, selection of methods of sociological surveys, construction techniques, conducting tactics, how to set the time of conducting, dealing with respondents in the process of conducting, collecting and processing data, drawing up tables, recording data in diagrams, summarizes data and draws conclusions.

In the laboratory part of science learning, the topics of the laboratories are determined, they are organized, and preliminary tests are conducted among students in a pilot method. Eliminating the shortcomings observed in the process of sociological surveys of students, filling or removing them, the correctness or



incorrectness of the chosen methods, the shortcomings encountered during the technique of constructing the developed questions, the object and subject of the problem being studied after the conducted pilot study, the skills of determining goals, tasks, basic interpretations and their operationalization, putting hypotheses and getting into the problem are formed.

How are laboratories structured in the methodology of sociological research?

The process of carrying out laboratory work does not require specially equipped rooms, as in the methodology of sociological research, unlike the sciences such as engineering, geology, physics, biology, chemistry. In this case, it is only important that the future sociologist's routes in the process of studying the problem are correctly determined. Laboratory training forces the brain to work in every way to enable students to apply theoretical knowledge in practice, to find the right solution and to complete tasks perfectly. Laboratory exercises reveal the unique characteristics, character and structure of each problem.

For example, if we consider the laboratory work on the topic of prevention of environmental pollution as an application, it will look like this.

Topic: Sociological analysis of environmental pollution prevention.

Relevance of the topic : In the process of globalization, industry and technology are developing. And this puts global problems in front of humanity. Such problems do not affect the environment. Environmental problems include many processes. Pollution of our environment and streets becomes part of the problem. It can be observed that large piles of waste are formed as a result of household waste being dumped on the streets and densely populated areas.

As a result of increasing environmental problems, atmospheric pollution is caused, and CO₂ is released into the air from any production facilities. The household waste that we throw on the streets today emits toxic gases into the air, which causes atmospheric pollution. Environmental problems become so functional with each other that one problem leads to another.

(The sociologist should determine the relevance of the studied problem, depending on the extent to which the topic acquires a scientific and social essence).

The purpose of the study : Today, one of the urgent problems of environmental pollution remains a global problem regardless of local reforms. Based on this point of view, the goal of sociological research of the problem was set.



(**A goal** is a model of the expected result that can be achieved only by conducting research.

The purpose of the research is not only to prepare a diagnosis, but also to analyze the causes of the problem situation and develop forecasts of its development, to evaluate the effectiveness of measures to influence the problem situation).

The purpose of the study:

1. Identifying the main causes of pollution of the environment with waste;
2. Assessing the possibility of mobilizing the population that pollutes the environment to eliminate these problems;
3. Assessment of the fact that every citizen feels that the safety of the environment is in the hands of every person;
4. To consider new ideas and ways to invest in cleaning the environment .

(**The tasks of the research are the tools that are implemented within the framework of specific requirements for** the analysis and solution of the defined problem.

Also, the tasks of the research should be clarified in terms of the content, methodology and organization of the goal).

The object of the study : Areas polluted by various economic wastes.

(**The object** is the "carrier" of the problematic situation, the field of activity of the social subject included in the scientific study process, or the field of social reality containing the social conflict).

Subject of research : The attitude of the population to the pollution of the environment with waste and their impact.

(**The subject of the research** is the aspects and features of the object that represent the researched problem as fully as possible and should be studied.

The object of research is always "who and what?" ", and the subject is "what to do?" should answer the questions. The goals and tasks are "how?" raises the following questions).

Research methods : conducting sociological surveys, observation, data analysis, content analysis, field research. Random groups are selected for selection.

The main interpretations and their operationalization (interpretation) :

Global problems are problems common to all countries of the world.

Environmental problems are all events and phenomena that occur as a result of negative human behavior .



Household waste is an unnecessary part of services used every day to meet the daily needs of people.

Atmosphere - a layer of air with gravity that surrounds the earth's sphere with a certain thickness.

CO₂ is a chemical element, i.e. carbon dioxide gas .

Funk ts ionallas huv - interdependence of the processes that make up the whole system.

Polyethylene bag is a lifting tool that is common to all of us today and meets the needs of goldsmiths at the market stalls. It is a chemically produced product that causes great harm to the environment.

(The purpose of interpreting the main interpretations is to create a theoretical model that helps people who are not directly involved in the research program to understand the research strategy correctly).

Research hypotheses:

- 1) **Illustrative hypotheses** : to describe the degree to which the environment is currently polluted by economic waste and waste piles in abandoned places
- 2) **Explanatory hypotheses** : to explain to the population the impact of negative consequences of economic waste on public health and the environment, how it contributes to the effective use of land in places where waste heaps are dumped.
- 3) **Prognostic hypotheses** : if such piles of waste are not prevented, forecasts are made that human health, the number of diseases will increase, and the amount of CO₂ in the atmosphere will increase, and environmental problems will turn into global problems. Pollution of the environment with waste can reduce the productivity of land areas. Therefore, the need for new measures and innovative ideas in the creation of effective land use and waste processing mechanisms is predicted.

(**Hypothesis** is a scientific hypothesis that is put forward, confirmed or rejected to explain the phenomena and processes under study.

The establishment of hypotheses is a positive process, based on the experience and knowledge of a sociologist. Initially, the hypothesis appears in the form of a metaphor, it is thoroughly studied in the process of logical analysis, edited and given shape. Revised hypotheses are criticized and require revision).

that it is easier to do practical work with a team and with the help of a teacher than to do everything yourself . Conducting laboratory work arouses students' interest in learning, teachers try to diversify the educational process and achieve the desired results. During the laboratory work, students remember the acquired theoretical



knowledge, it activates the brain to find the right solution and overcome the task. In order to acquire theoretical knowledge, it is necessary to actively participate in lectures and prepare for seminars, and effectively use the Internet, and students can apply them in practice by doing laboratory work.

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UK: TO BE OR NOT TO BE...

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Abstract

Great Britain: to be or not to be ... From ancient times to the present day, Great Britain is associated with a large number of myths and legends. But if earlier they belonged to the history of the country, now they belong to climatic disasters. It is assumed that this is due to the warm current of the Gulf Stream, which "warms" the UK and Europe. It may stop or weaken. Scientists believe that the main reason for future flooding is the melting of the Arctic ice and the changing climate of the Earth due to rising temperatures. According to Jean Pascal Ypersel, vice-president of the Interstate Commission on Climate Change, London, Antwerp, Copenhagen, Rotterdam, Amsterdam could be swallowed up by the world's oceans, and the middle of this century will be the turning point of huge global catastrophes. Over the past 250 years, the UK has experienced many storms and rain. This determines the relevance of the selected study. The object of the study is the British Isles and the search for reasons that may lead to changes on the world map. Having studied the opinions and hypotheses of scientists on this issue, I found out how Great Britain was formed; possible global changes.



Purpose: to find out the possibility of the disappearance of some parts of the planet, Britain in particular, due to climate change and to find out the factors that can lead to these critical changes. East London could already be flooded, if not for the dam on the River Thames. Methods: search and study of scientific literature, its systematization, Internet survey. Result: changes can be caused by changing the position of the magnetic poles; the movement of continents and the earth's crust; salt anomaly and melting Arctic ice; an increase in the conservation of heat of the Gulf Stream; change in the Earth's magnetic field and as a result - the melting of ice at the poles and the rise in the level of the world's oceans. Conclusion: There is a 1 in 20 chance that ocean levels along the British coast could be 1 meter higher by 2100. Practical significance - knowledge of the processes taking place on the planet and which can lead to global changes. The study is closely related to the school curriculum in the 9th and 11th grades. How was the UK formed? According to scientists, the age of the Earth is 4.6 billion years. British rocks can tell about the movement of the island on the earth's surface. Every 500 million years, geologists noticed signs of mountain building. Much is said about the continental drift of various masses of earth wandering around the world. These days, satellites can measure their movement (about 15 mm per year). The planet's magnetic field is constantly changing. It surrounds the Earth 40,000 miles in space.

James Ross first determined the location of the North Pole in 1831. Roald Amundsen rediscovered the pole in 1904 and determined that it had moved 50 km since Ross' time. When the South Magnetic Pole was first discovered in 1909 it was located in Antarctica, but by 2000 in the Southern Ocean. The movement of the North Pole over 100 years at a rate of 10 km per year to the North has increased to 40 km per year over the past 30 years. At this rate, it will leave North America and reach Siberia in a few decades. Currently, the North Pole is located in northern Canada, 800 km from the geographic pole. The distance between the South Magnetic Pole and the geographic South Pole is 2858 km. Global warming is repositioning the Earth's geographic poles, according to a study in the journal Geophysical Research Letters. The Earth's magnetic field is formed in the Earth's core.

In the history of geology, there have been a huge number of changes in the position of the poles, north to south: an average of 1 time in 200,000 years.



Since the 19th century, the magnetic field has weakened by 10%. According to University of California professor Gary Glatzmyer, this weakness does not mean a reversal is imminent. This takes several thousand years, and during this time the magnetic field does not disappear. Geological Survey of Canada scientist Larry Newit says that the reversal of the Earth's magnetic field consists of a few scientifically plausible ideas mixed with a large dosage of absolute nonsense. Does this mean that the Earth's magnetic field will disappear or change its location in the future? Perhaps not. Changes in the magnetic field are becoming a major problem in aviation, navigation, and wildlife migration using the magnetic field to navigate long distances. Some airports have had to change the names of their runways. What happens if the Earth's temperature increases? Even if the concentration of greenhouse gas emissions decreases in the atmosphere, this will still mean an increase in global temperature between 0.5 °C and 1 °C. Warming near the North Pole is occurring faster than the world average and Arctic glaciers have lost 400 km³ of ice in 40 years. More than half of the European summer months will be hotter by 2040, according to the Hadley Center. The Greenland ice is melting much faster than it should be. At this rate, the entire Greenland ice sheet will disappear within 140 years. Central London will be flooded. What caused the climate to change? Suspicion falls on methane hydrate - a combination of water and methane. Climate change affects not only the UK, but the whole world. Harsh winters have become milder. I turned to the climate studies of Belarusian scientists from the Institute for Problems of the Use of Natural Resources and Ecology. The greenhouse effect is one of the most important factors in the current climate warming. Severe temperature fluctuations cannot be explained by the greenhouse effect alone. Professor V. Loginov gives a number of explanations: an increase in the temperature of the Gulf Stream; accelerated ice melt and salt anomaly in the Arctic Ocean; slowing down the depth of the winter convention (cold water is "closed" in the upper layer of the ocean); drop in temperature in the Northern Hemisphere. Scientists at the University of Brussels warn that by 2050, parts of Europe could be uninhabitable due to flooding. A map created by the environment agency shows how east London could have become an underwater city if the Thames dike, the world's second largest flood protection system, had never been built.



It is always closed during storms, floods and high tides. The gates close in 10 minutes, the full closure takes 1.5 hours, which costs £16,000. The Environment Agency states that London is vulnerable to flooding and high tides from the North Sea to the English Channel and the Thames Estuary.

Melted ice from the poles could raise sea levels by up to 3 feet by the end of the century, according to scientists from the European Ice2Sea Programme, the British Antarctic Survey and the University of Bristol. There is a 1 in 20 chance of a 1m sea level rise around the British coast by the year 2100. I am very concerned about the future of my country, Belarus. The nearest distance from Belarus to the Baltic Sea is 198 km. Belarus is a low-lying country, like many European countries, and is located on the stable East European Platform, far from the fault line. This proves that Belarus will not experience catastrophic turbulences associated with the rupture of the territory and the loss of height above sea level. I chose 51 highest points above sea level in the UK and Belarus. Relief maps of both countries in comparison helped to see their real location, as well as to anticipate changes that may be caused by sea level rise, and expected areas for flooding, due to temperature changes, ice melt in the Arctic. I conducted an online survey among 200 Russian-speaking and English-speaking teenagers and adults in comparison. The question asked reads: "Is there evidence of some countries, the UK in particular, being flooded due to climate change, warming and melting ice at the North Pole, and changes in the Earth's magnetic field?" I came to the conclusion that: 15% of all respondents believe in evidence of flooding; 41.5% do not believe; 25% flooding possible; 9% do not know; 9.5% have not heard of this problem. To find out what influenced climate change on the entire planet, the theories of different scientists were compared from the point of view of certain areas of science and their opinions were analyzed. I concluded that changes on the Earth can be caused by several reasons: the shift of the magnetic poles; continental drift; the movement of the earth's crust; melting ice in the Arctic; salt anomaly in the Arctic Ocean; an increase in the heat of the Gulf Stream; changing the Earth's magnetic field and, as a result, all this can lead to the melting of ice at the North and South Poles and the rise in the level of the oceans. As for global warming, people should reduce the greenhouse effect. It would be ideal if from time to time "open the window of our planet and release gases into space."



Better yet, if some genius could invent climate control for the entire planet. The presented findings confirm the relevance of the study. This material can be used in English lessons. This study is a useful reference for those concerned about the future of the planet. Let's think positively. Those who have a desire to get an education in the UK (where education is considered one of the best in the world) should not give up their plans.

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THE ROLE AND THE PLACE OF THE WOMAN IN TURKESTAN ON THE MATERIALS OF THE REPORTS OF SENATORIAL AUDITING OF K.K. PALEN IN 1908-1909 YEARS

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The article deals with the issues of significance and the role of the woman-Moslem, social status of the woman in Turkestan on the materials of the auditing of the senator K.K. Palen

Keywords: Koran, Sharia, Adat, auditing, senator K.K. Palen, Turkestan, marriage, family, rights of the women, duties of wife and husband.

The role of the women in society, either as men is great and wide. The great function on its value is entrusted on the woman according to the will the God – like preservation of the human being. Naturally the upbringing of children is also the most important duty of the mother. The role of the woman in Islam is very great. The woman – is mother, sister, daughter, and wife. Poems, songs, victories and awards are devoted to the women. One poet said: “Mother – is a school that prepares noble population to the life” [3.15]. The woman is of special respect and high authority. The image of woman-Moslem attracted the attention of Russian and foreign poets and writers. “Imitations to Koran” of A.S. Pushkin, including poetry, devoted to the wives of the Prophet “Oh, pure wives of the Prophet” are well-known [6.115–124]. The poet Rostislav Podunov described the image of the woman-Moslem in his poem “Moslem” very well (1970). European scientists and statesmen were interested in the question of the woman. At the end of XIX – the beginning of XX century there was much distorted idea about woman of the Moslem East and many inconsistent opinions about closed lifestyle of the women of Turkestan. For instance, in the article of the Russian official N.A. Maev “Asian Tashkent” the author illuminates the questions on “a view to Moslem women and





their rights”, where he noted that European got accustomed to consider “Middle Asian women as a victim of despotism and concubine of her husband” [1.298] however nobody did not consider women of the Europe or Russia as the victims of despotism. The same situation, either as in Central Asia was observed while the review of life of the women of Europe and Russia, where men was to make frequent or long-lasting absences for the decision of business, material problems. “People felt sorry about native women that they were bound with work and that husband looked at them as on workers. It is true that all duties of the house lies on Asian women, but the wives of those who are not Asian sit fold hands? Is not it true that the whole house works and often absolutely the work that must do the men lies on them?” [1.299].

It is not correct to think that Moslem women are “creatures without any rights”, because according to Moslem rule; Sharia, woman, either as man, beginning from VII century was vested by certain rights: this is the protection of life, honor, property and dignity. The Islam nearly fifteen centuries ago openly proclaimed the full financial independence of the women and provided with essential rights to spend their own valuables independently, have their own business and sign financial documents required for it themselves. However in Russian Turkestan not knowing the local languages in necessary level by majority of the Russian researchers prevented deep and broad investigation of Moslem legislation and these served for formation of the distorted opinion about the position of women – Moslem that have no rights. It prepared the ground to the auditor of Turkestan, senator K.K. Palen in 1909 to write in his report that “the condition of Islam and the general picture of its development in the area is as it was before remains little investigated” [5.61]. But it is necessary to note that exactly the official from Petersburg, senator K.K. Palen made a contribution in expansion of the knowledge of Russian scientists about legal relations of the scolded population of Turkestan and position of the women in the most unexpected way. As it is known, tsarist government preserved the legal relations of scolded populations of the area built on the law of Sharia. Auditing of K.K. Palen trying to check activity of public court judges (Qozi) faced with the following fact that their decisions on the events of the same type were not only several, but on the contrary, most often contradicted each other. It brought investigators to the conclusion “that the reason of such position lies not only on procedural imperfection of court themselves, but in the character of used and protected by our law under authoritative name “custom” of material right, muddled and inaccessible



understanding of both population and local administrative and judicial powers and judges” [7.5]. “Native customs” of scolded populations having settled lifestyle were completely subjugated to the rule of the Moslem right – Sharia. The absence of the translation of the full systematized code of the laws of Sharia in the Russian language obstructed the familiarization of the members of the auditing with these norms controlling the life of sedentary population. And it was strange that nobody from leaders of the colonial administration during the 40 years of existence of Turkestan general governorship did nothing in order to get this extremely necessary legal document. It is possible to say that senator K.K. Palen made the scientific feat in the short period of time (during the year) having prepared and having published in the Russian language code laws of the legal norms of the scolded population of the area on the questions of household, hereditary and material rights i.e. laws of Sharia. The members of the commission realized auditing of the area under the direction of senator K.K.Palen did colossal work for it. In order to collect full and reliable code of the legal norms of the scolded population of Turkestan it was decided to question most broad circle of persons knowing them. “Herewith it was spoken in the report of the auditing called “Legal life (lifestyle) of native population” that it was not in mind to reconstruct Sharia in its purity in the way of the theoretical scientific formations, but only to get exact and determined information about that how according to Sharia, in that type which is understood and interpreted in Turkestan were solved the main questions of the native civil-legal life (lifestyle)” [7.10]. K.K. Palen took “Collection, acting in India, of Moslem right of Hanifat school” published in English as a base of the future code of the legal norms of the Moslem population of the area. It was formed by Roland Wilson professor of the department of the Indian right of Cambridge university. The collection consisted of “Norms of household, hereditary and material rights” received in India and attentively compared with their Moslem source. According to the instruction of K.K. Palen this work was translated into Russian language and was presented as the first variant of the future code of the laws of Sharia. The examination papers were formed based on their main positions

and sent to the connoisseurs of the local Moslem right – theologians, judges, teachers of Madrasah with the request to express their opinion about it. All received adjustments were contributed in the First variant of the code and thereby was formed “Project of the code of the legal norms of Muslims of



Turkestan on the questions of civil legal life (lifestyle)". Senator K.K. Palen for the discussion

and statement of it convened special convention of connoisseur of Moslem right in Tashkent from three scolded areas of the edge, where 15 representatives from local administration, 8 from judicial department, 4 from scholastic department and 29 from scientist, Judges and teachers of Madrasah took part. All contributed adjustments to the convention "Collection of the Moslem right" which was prepared by R. Wilson were checked once again. K.K. Palen with purely German pedantry demanded from presenting at convention Moslem scientist jurists to write conclusions separately on each article of the offered code of the legal norms and having left thereby "argumentation material, which could serve as a reference for the further development of the question by way of judicial practice and scientific researches" [7.11]. All articles given in the discussed code of the legal norms were accepted by the participants of the convention as acting amongst sedentary of the Moslem population of Turkestan and corresponding to Sharia [7.12]. The Code of legal norms approved on convention (its text is given completely in his report of the auditing called "Legal life (lifestyle) of native population"), consisted of 11 chapters (chapter I – "About marriage"; chapter II – "About divorce, about divorces according to the court (tafriq)"; chapter III – "About parent and children, about their duties"; chapter IV – "About trusteeship"; chapter V – "About support of relatives"; chapter VI – "About inheritance"; chapter VII – "About order of the inheritance according to the law"; chapter VIII – "Testament and grant on the mortal bed"; chapter IX – "About presenting (granting)"; chapter X – "About the right of primary purchase (shifaat)"; chapter XI – "About property and about agreements", containing 275 articles [7.12–118]. The first chapter deals with problems of the marriage according to Sharia and the information about the rights and duties of both women and men is given that interested us. The given chapter informs about that what is in general understood under the notion of "marriage agreement" though "limiting marriage age is not determined" and it was also determined that if person going to marry reached the age of majority "the marriage agreement is concluded on the agreement (desire) of both sides without interference of the parents or their deputies (vali) and in the same way to demand the terminations of the marriage that is concluded without their agreement". The woman is forbidden to have "simultaneously two or more



husbands” [7.15 (Chapter 1. The Article 14)], but man has the right “to have simultaneously not more than four wives, he can marry the fifth after the divorce with one or on deaths of one of them”. But in section of “duties of the spouses” it is said if the husband has more than one wife, “he is obliged to give each separate apartments, having its separate output in courtyard, divide his property equally and address with them equally in the other relations; in the event of refusal of the husband from marriage cohabitation the wife has the right to address to the public judge” [7.22 (Chapter I. Article 38)]. The Man is forbidden to marry to relative “on ascendant and top-down lines” and in the same way he can carry material and moral duty if he “accepted concubine into the house” [7.22 (Chapter I. Article 39)], or if he “abused power, deprived the liberties, beat” [7. 23 (Chapter I. Article 40)] i.e., wife has the right to address for the protection of the court and refuse to live with him and require material support to live. The wife according to Sharia has the right to require from her husband in the manner of remunerations

for marrying him the amount of money or some property. According to Adat – rules of the nomadic population which were wide-spread among nomadic folk of Turkestan, marriage is an “agreement concluded for the reason of acquisition of the woman for marriage cohabitation” that was in counterweight to Sharia. [7.86 (Chapter I. About marriage.)] i.e. civil deal between family of the bridegroom and brides where close relatives with their help in the payment of bride price take part

also. The opinion and consent of bride and bridegroom is of no importance; since they are in full subservience of the will of the parents especially of the father. The girl is often allowed to marry before the achievement of “marriage age” i.e. puberty if marriage is profitable for the head of the family or relatives senate. According to Adat – the woman absolutely has no rights and liberties of the choice, this proves the Article 7, on which “in the case of death of the bride, if there is not engaged sister (baldiz) she must marry him instead of her; otherwise, bridegroom returns bride price” [7.87 (the Common law of nomad (Adat). Chapter I. About marriage. The Article 7)], but in the case of “death of the bridegroom, governing right (responsibility) on bride goes to the brother of a deceased, directly his following or nearest relative. If there is no such person or they do not want to

use this right parent of the deceased returns one half of paid bride price [7. 87 (The Common law of nomad (Adat). Chapter I. About marriage. The Article 8)]” but



if the girl “engaged in infancy on the achievement of the majority runs away with another boy in this case he must give the previous bridegroom one another girl or pay bride price” [2.58]. According to Adat woman was not also protected from tyrant-husband and in questions of the divorce unlike Sharia the desire of the wife was not absolutely taken into consideration. Even though husband addressed with his wife cruelly and even beat her; she has no right to require the divorce. According to the suit of the parents and relatives of wife husband could be condemned for this only to fine, but the divorce could not take place. Thereby woman had only one way – to run away to native or with another person, but it was equaled to “evacuation of one’s wife” and was punished by fine in favour of husband. Even in case of proving of “torment or mutilation” and if husband requires his wife back, but relatives protect her and do not return her to the husband, husband gets fine from the relatives with the deduction of only “guilt (ayb)” for caused frustration to the health of wife [7.91 (About divorce)]. That was the reason why woman leading nomadic lifestyle left their husbands in exceptional situations if found protection from parents or relatives. According to the information of N.I. Grodekov that studied the legal life (lifestyle) of nomadic people (the kirghiz-karakirghiz): “man does not limit the numbers of his wives...” [2.84]; “divorced woman does get neither property, nor children” [2.92]. All the above mentioned information about nomadic population was determined during the auditing and it was determined in the convention that during the auditing initial “kirghiz Adat of ancestors was not survived and was converted into the right representing mixture of the rules of Adat and Sharia”. As the senator K.K. Palen pointed out “most positions serving as a reflection of the all-powerful at one time generic beginning with unlimited power of the head of the family and wide rights of father of the family and with oppressed bad position of women ...began gradually to yield to the milder beginnings of Sharia” [7.85]. The earl being European himself and from the European point of view thought that probably Western lifestyle of the family lacks in Turkestan, “family” in that meaning which was understood in Russia “simply did not exist”. He judged the family according to the planning of the house which was different from European houses by division of it into two parts: male (external) and feminine (internal) and being European senator did not take into account the culture, traditions and custom of the Moslem population. K.K. Palen noted in his memories that “Moslem consider woman as an animal that has not soul” [8.34] – much distorted information about position of women was described by senator. Though the



information given above describes the true position of the woman-Moslem in the epoch of the spreading Islam, but during the auditing religious scholasticism was governing in the area and religion was used and interpreted with profit only for “elected” that served for the formation of wrong conclusion by senator. Though his critique was fair and he criticized objectively the position and attitude to woman existing exactly at the time of auditing and with big participation tried to relieve the life of woman-Moslem: medical help of Russian women doctors and midwives was organized that was a big breakout in the fight with feminine death-rate, especially during confinement; free hospitals were organized; the marriage of minor girls was forbidden. According to the given information we can come to the following conclusion that the auditing of the senator K.K. Palen studied the Moslem code of the laws of both settled and nomadic population to modernize the legislative managerial system in the area. Thereby marriage in Islam according to Sharia was considered and is considered as a means of calmness of the soul and heart, and family – is a cell of society, exactly in it the person either blooms or perishes. This it the root that population come out. Any human being needs house, family and in all times it depended on the woman how will be morality spirituality, religiosity of the future generations. In conclusion it is worth to mention the utterance of Moslem scientist: “If you teach the man – you teach one person, if you teach the woman – you teach the nation” [3.16] and the utterance of the American poet Walt Whitman: “Man is great in the Earth and in centuries, but each iota of his greatness grew up from the woman” [4.5].

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SPECIFIC FEATURES OF A FICTIONAL TEXT FROM LINGUOCULTUROLOGICAL VIEWPOINT

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Abstract

The problem of a literary (fictional) text, as well as its definition and specific characteristic features, have always been of great interest for many researchers, both in the past and present. One of the main questions concerning fictional text is what are the main differences between fictional and non-fictional texts. The definition of text mostly depends on the area of investigation, that is to say, for our research the most relevant is the study of fictional texts as linguocultural units, presenting cultural information.

Introduction

There are different text types, but the one of them that is in the focus of our research is a literary text. The definition of a fictional text has been a topical problem studied by various prominent researchers, such as V. V. Vinogradov, B. A. Larin, G. O. Vinokur, R. O. Jakobson and many others. The first thing that should be mentioned is that a fictional text is always a type of communication, to be more precise, a type of literary communication. Fictional text does not usually convey only factual information, it often becomes a source of conceptual and implicit information.

A fictional text is supposed to be perceived as a two-leveled structure, in other words, it has a surface layer and a deep layer. The main task of a researcher, a reader or any interpreter is to penetrate into the deep level of a fictional text in order to find out the senses that were implied by the author. Moreover, a fictional text always serves as the reflection of an imaginary world created by the author. A literary text has a number of features that make it quite remarkable among the other text types, and these features will be investigated in our article.

It is necessary to point out that a fictional text always performs aesthetic function, as the author of a fictional text aims to compile the text in a way that would create an aesthetic influence on a reader. In an attempt to express the personal vision of a surrounding world, the author creates his own imaginary world that is reflected



in a fictional text. A fictional text is a combination of various stylistic forms aimed to fulfill the artistic intent of an author to create an aesthetic effect.

Anthropocentric nature is one of the significant features that characterize a fictional text, as it always serves as a means of communication between the linguistic personality of an author, linguistic personality of a character and a reader. The theory of Linguistic Personality has been created by a Russian linguist Yu. N. Karaulov, and has further developed the following structure:

- i. Semantic and stylistic (reflecting the meaning, the vocabulary, the style);
- ii. Pragmatic (social and professional status, educational level, gender and age);
- iii. Cognitive (views, ideas, evaluations, outlook, the individual's world picture);
- iv. Cultural (the expression of cultural values).

Next, it is possible to point out that such categories as emotiveness, imagery, implicitness, intertextuality and linguistic creativity are inherent to any literary or fictional text.

The category of emotiveness in literary texts stands for the ability to produce emotional influence on a reader. Authors of fictional texts use a variety of ways to express emotiveness in their works. However, the perception of emotive information is considered to be a rather problematic issue, as this process requires a lot of cognitive effort, in contrast with the perception of factual information. Emotiveness in a literary text is often created with the help of emotives, stylistic devices (epithets, hyperbole, irony, oxymoron, gradation, rhetorical questions), words, providing positive or negative evaluation, and the convergence of stylistic devices. The convergence in this case means the abundance of emotives and stylistic devices in a fictional text and it is considered to be the strongest signal of emotiveness. Another means to create emotiveness in a text is repetition, representing the property of language known as redundancy. Repetition may be of different types, as in the same literary text an author can use repetition of sounds, repetition of words or even phrases. Whatever the type of repetition is used in a fictional text, it always plays a priority role in text cohesion and coherence (Galperin, 1981) and is always enriched with emotional information (Ashurova, Galieva, 2016). Finally, emotiveness can be often represented in the speech of the personages of a fictional text, especially in the dialogues and polylogues. The interactions between personages give the



author an opportunity to create emotiveness with the help of various emotional expressions of thoughts, reflecting the peculiarities of colloquial speech.

The category of imagery in a fictional text is expressed through the usage of figurative means. However, imagery is another phenomenon of argumentative nature, as the researchers cannot agree on the definition of this notion. Some linguists believe that a fictional text that does not include any figurative means still has imagery. In our opinion, both points of view can be relevant, because we still consider figurative means quite important. In other words, this phenomenon is inherent to any fictional text and can be expressed through the fact that it is a reflection of an “imaginary” world.

One of the crucial constituents of imagery is a metaphor, but in cognitive linguistics it is studied not only as the stylistic device, but also as a cognitive mechanism, incorporating cognitive processes, empirical experience and language competence (Ashurova, Galieva, 2016). In other words, we deal with conceptual or cognitive metaphor, a special way of conceptualizing reality in a fictional text and one of the important ways of creating imagery. Just like any other stylistic device, it has a broad extended system of associations, and from the cognitive point of view it possesses the ability of modeling reality. Conceptual metaphor is not limited to a number of words, it can be represented through a whole text that becomes the embodiment of some concept. Apart from cognitive metaphor, imagery can also be created with the help of metonymy, simile, allusion, metaphorical epithet, paraphrasing and the usage of symbols. It is possible to sum up the following characteristics of the phenomenon of imagery:

- imagery is an inherent category of a literary text
- imagery is based on the mechanism of analogy when at least two things appear to be conceptually parallel to one another
- imagery plays a central role in the world picture conceptualization.

Implicitness is another essential category of a fictional text. It is expressed through the ability to convey hidden information that is not fully verbalized in a text and has to be retrieved from the deep layer. The problem of implicitness has been studied by many researchers, such as I. V. Arnold, I. R. Galperin, Z. Y. Turaeva and many others, but G. G. Molchanova was the one who has worked out a detailed description of all the language means through which implicitness can be manifested.

Implicitness, just like any other fictional text category, can be created by a number of language means, and among them we can emphasize implicit titles, implicit poetic details, such as portrait description, fictional dialogues, and various stylistic devices, representing implicitness of different types. Portrait description is a good example of a linguistic mechanism used to create implicitness. Authors often use the description of a personage to illustrate the physical appearance, but also to present the inner world of this very character. The information about the inner world is usually implicit and should be analyzed by a reader through the prism of the physical description. The correlation between two semantic layers standing for appearance and the inner world creates the mechanism of implicitness. Additionally, implicit information can be conveyed through the dialogues and polylogues between the personages of a text, as with the help of a dialogue an author can give an implicit description of a linguistic personality. Implicit information in a text is represented in a variety of ways, as implicates can be expressed through the deviations of syntagmatic, paradigmatic and communicative-textual norms (Baklanova, 2011). G. G. Molchanova also uses the term “implicate” and suggests the following degrees of implicates:

- trite implicates (the most predictable ones)
- local implicates (the ones that can be deciphered in the context)
- deep implicates (the important constituent parts of the text)
- dark implicates (the ones that are almost impossible to decipher) (Molchanova, 1990).

Even though a fictional text is a means of communication that has a number of features to define it among other text types, its another prominent feature is the violation of communicative principles listed by Grice (1985), in other words, the violation of Maxims of Quantity, Quality, and Relation and Manner.:

- 1) The Maxim of Quantity (be laconic). Violation of the postulate of Quantity stands for the usage of alliteration, anaphora, epiphora and all of the other kinds of repetition. Despite the fact that the usage of these stylistic devices implies the redundancy of information, a deliberate abundance of one and the same language sign in the text leads to the existence of new implicit information within the text;
- 2) Usage of the Maxim of Quality (be truthful). It is obvious that any fictional text automatically violates the Maxim of Quality, as every fictional text is a reflection of an imaginary world created by the author, subsequently, fictional texts do not present accurate and factual information. Violation of the postulate of Quality



suggests the usage of metaphor, hyperbole, litotes, pun, irony, and is mostly based on the contrast between the real and the imaginary world;

- 3) The Maxim of Manner (be clear). Violation of the Maxim of Manner is indicated by the use of retrospection, prospection, implication of precedence, open ending and other ways of violation of logical succession in the text. Moreover, the Maxim of Manner can be violated by presence of ambiguity and implicitness, one of the most prominent features of a fictional text.
- 4) The Maxim of Relevance (be relevant, speak to the point). The violation of the Maxim of Relevance may happen due to the author providing the irrelevant information to the readers' previous knowledge and information which is more or less informative. The usage of author's meditations, a text unit containing the author's conclusions, judgements, generalizations or the usage of such narrative techniques as stream of consciousness, as authors often provide information that may not be clear or specific enough for the main plot of the text, causes the violation of the Maxim of Relevance.

Another prominent aspect of a fictional text is its multidimensional nature that is expressed through a variety of ways in which it can be analyzed. Any fictional text can be studied from the structural point of view, semantic point of view, pragmatic point of view, stylistic perspective, cognitive point of view and linguocultural perspective.

From the grammatical point of view, fictional text is analyzed as a set of sentences united to form complex syntactical units. Text grammar covers a wide range of questions: structural and semantic integrity of the text, its segmentation, lexical and grammatical cohesion, thematic and rhematic aspects of the text, compositional structure, sentence arrangement in the text, text forming functions of language units, text delimitation and others (Ashurova, Galieva, 2016). Moreover, some other aspects of a fictional text such as text modality and structural and semantic integrity of the text are of great importance for Text Grammar.

From the semantic point of view the inner content structure of the text is the object of analysis, as it is different from the semantics of linguistic units with their meaning being fixed in the dictionary, while the semantic meaning of a text is perceived as a whole mental formation. Text semantics is concerned with the study of the following problems:

- the notion of semantic integrity;
- the semantic structure of the text;



- the main units of the semantic structure of the text;
- the correlation of the surface layer of the text and its content, interaction of surface and deep structures;
- the correlation of the linguistic and extralinguistic factors of the text;
- content analysis of the text.

Another point of view from which a fictional text is studied as a means of communicative interaction in the sociocultural context is the pragmatic point of view. Pragmatics studies the language in any kind of human activity, involving psychological, social and cultural aspects of language functioning. Thus, from the pragmatic point of view not only fictional text should be taken into account, but also the notion of discourse, which is broader than the notion of a text. Discourse is considered by many researchers as text in dynamics, in communication and in any cultural context. N. D. Arutyunova states that discourse is a type of culturally conditioned and socially oriented communicative activity, while V. Karasik understands discourse as a text in the situation of real communication. Another problem of text pragmatics is the study of a fictional text as a communicative-pragmatic situation. The communicative-pragmatic situation is understood as a complex of external conditions and circumstances of communication. According to E. S. Aznaurova the communicative-pragmatic situation can be presented by a chain questions: who – what – where – when – how – why – to whom (1988:38). The most relevant parameters of the communicative-pragmatic situation in the literary discourse are:

- circumstances and place of the communicative act;
- the subject and aim of communication;
- social, ethnic, individual, characteristics of the communicants;
- role and personal relations between the communicants (Ashurova, Galieva, 2016).

In the framework of a literary text the most important notions are discourse, that has already been mentioned, the notion of linguistic personality, the notion of pragmatic intention and the notion of modality. In terms of a fictional text, we usually take into consideration subjective modality that reveals the author's personality and outlook. Subjective modality embraces the whole range of evaluations, attitudes, opinions and emotions. Meanwhile, the following definition of linguistic personality can be given: Linguistic personality is a manifold, multi-component and structurally organized set of language competences, a certain linguistic correlate of the spiritual world of a personality



in the integrity of his social, ethnic, psychological, aesthetic characteristics (Karaulov, p. 71, 1987). The notion of pragmatic intention represents the communicative intention, conditioned by a communicative situation and the tasks put by the addresser (O. G. Moskalskaya, 1984). While talking about the literary text, it is possible to mention that it has an inherent set of specific pragmatic intentions, listed by Ashurova (1991):

- the pragmatic intention – to attract attention (attention-compelling intention);
- the pragmatic intention – to interest the reader;
- the pragmatic intention – to exert an emotional impact;
- the pragmatic intention – to activize knowledge structures relevant to the conceptual information;
- the pragmatic intention – to stimulate the addressee's creativity;
- the pragmatic intention – to represent the conceptual world picture.

The study of the fictional text is also closely connected with text stylistics, as stylistics specifically deals mainly with the analysis of fictional texts. These two branches of linguistics even share the same notions and main problems, such as:

- Text types related to the problem of functional styles;
- Compositional structure of the text;
- Stylistic text categories;
- Stylistic means of cohesion and coherence;
- Stylistic peculiarities of an individual style;
- The role of language units in transmitting conceptual information and representation of the conceptual world picture.

Next sphere of investigation in which a fictional text can be analyzed is the cognitive aspect. From this perspective, a fictional text is viewed as a conceptsphere, where it is possible to find the main concept and associated concepts. In the analysis of a fictional text we can apply the following main notions of cognitive linguistics:

- concept – a mental complex unity, consisting of the notional part and the image-bearing part;
- conceptsphere – a number of concepts, closely connected and associated with each other in a text;



- world picture – the global image of the world (especially the author's individual world picture, in which the peculiar features of the author's style are reflected).

Finally, a fictional text can be regarded as a unit of culture, in this case we can say that it can be analyzed from linguocultural viewpoint. This standpoint can be proven by the implication that a fictional text can be a means of storing and transmitting culture, as it serves as the reflection of an author's individual world picture and displays macro- and microconcepts, both universal and nationally specific.

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IMPROVING THE ACTIVITY OF QUALIFICATION COMMISSIONS UNDER THE REGIONAL ADMINISTRATIONS OF THE CHAMBER OF ADVOCATES OF THE REPUBLIC OF UZBEKISTAN

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Annotation

This article discusses the activities of qualification commissions under the Chamber of Advocates of the Republic of Uzbekistan, changes in their powers, main problems and shortcomings in their activities, the independence of self-management structures of advocates, and the experience of foreign countries in this matter.

Keywords. Judicial reforms, advocacy, qualified legal assistance, qualification examination, disciplinary responsibility, Chamber of Advocates, self-management

In the developed countries of the world, issues related to the legal status of advocacy structures are still of great importance in the improvement of the legal profession. The important role of the legal profession in ensuring human rights and interests in every country is recognized by the international community. In particular, in the "Basic Principles on the Role of Lawyers" adopted at the Eighth UN Congress on Crime Prevention and Dealing with Offenders, it is noted that the improvement of the legal profession is one of the primary conditions for democratic legal development.

The right to receive qualified legal assistance is considered an integral part of the legal status of a citizen and is guaranteed not only by national but also by international law.

In recent years, measures have been taken to strengthen the role and importance of the legal profession as an important component of judicial reforms in our country.

Advocacy is the most important institution of the legal system of a democratic state, and its task is to provide quality protection of the rights, freedoms and legal interests of individuals and legal entities independently of the state. It is their constitutional right to receive legal assistance from the trustee. The right to receive legal aid in accordance with the international standards of fair trial,





which is enshrined in Article 116 of the Constitution of the Republic of Uzbekistan, is considered as one of the principles underlying it.

Through the above mentioned article of the Constitution of the Republic of Uzbekistan, it is stipulated that the law firm shall operate based on the principles of independence and self-governance to provide legal assistance to individuals and legal entities. Based on the tasks of the Advocacy Institute, it is worth noting that these two principles are very important for the Advocacy.

Among the institutions whose main field of activity is aimed at protecting human rights and freedoms, the bar occupies a special and important place. Therefore, in the process of reforms in the field of judiciary in our country, a lot of attention is being paid to the reform of the legal system, which is one of the institutions of the civil society, and to increase its position in the society.

As a legal basis for the development and improvement of the field, the Laws "On Advocacy" in 1996 and "Laws on Guarantees of Advocacy and Social Protection of Advocates" were adopted in 1998, which defined the norms aimed at ensuring the important aspects of advocacy, professional integrity and guarantees of advocates. These norms ensured the independence of the bar institute to a certain extent and created opportunities for advocates to perform their professional duties.

On May 1, 2008, the Decree of the President of the Republic of Uzbekistan "On measures to further reform the legal profession in the Republic of Uzbekistan" was adopted. Amendments and additions were made to the Law "On Advocacy" on the basis of this Decree.

In particular, in the Decree, the legal profession was recognized for the first time as one of the main institutions of civil society. It was decided to establish an effective self-managing centralized system of advocacy, to strengthen the requirements for the qualifications of candidates for advocacy, and to introduce the obligation to regularly improve the professional qualifications of advocates. Establishing an effective licensing system that provides the legal profession with honest and highly skilled professionals, ensuring equal procedural rights of the prosecution and defense parties in criminal proceedings, and gradually improving the institution of representation of parties aimed at preventing persons without special knowledge in the field of jurisprudence from participating in court proceedings was introduced. Also, issues such as the mechanism for monitoring compliance with the rules of professional ethics by advocates and the improvement of the system of disciplinary proceedings



against advocates were identified as the main directions of the reform of the sector.

The rapid development of social relations ensures that the legal documents regulating any sphere are fully compatible with social relations. Therefore, on May 12, 2018, the Decree of the President of the Republic of Uzbekistan “On measures to fundamentally increase the effectiveness of the Bar Institute and expand the independence of advocates” was adopted. In addition to the improvement of the legal basis of the legal institution of the bar, this document implemented the provisions aimed at expanding the rights of advocates.

In particular, now the advocate has the right to bring and use a computer, mobile and other means of communication to the courthouse without hindrance. Requests by advocates to receive references, descriptions and other documents or their copies from the state and other bodies, as well as enterprises, institutions and organizations, necessary for providing legal assistance, must be completed within fifteen days at most from the moment they are received, advocates who have established their bureaus must regulations were introduced on the fact that officials who are guilty of failing to provide information on time, providing false or incorrect information at the request of a advocate, will be held administratively liable based on the advocate’s direct appeal to the court.

The consistent growth of the number of advocates, their compliance with the legislation and professional ethics rules in their activities is directly related to the activity of the Chamber of Advocates of the Republic of Uzbekistan and its regional offices, in particular, the Higher and Regional Qualification Commissions.

The structure and formation of qualification commissions, as defined in the Law of the Republic of Uzbekistan "On Advocacy", regional bodies of the Chamber of Advocates, in order to resolve the issue of issuing licenses to persons with the necessary knowledge and professional qualifications, to take the advocate's oath, as well as to conduct disciplinary proceedings against advocates is established in the presence of departments. The activity of regional qualification commissions is regulated on the basis of the Regulation on qualification commissions under the regional departments of the Chamber of Advocates of the Republic of Uzbekistan adopted in accordance with the order of the Minister of Justice of the Republic of Uzbekistan dated March 14, 2009 “On approval of



the regulation on qualification commissions under the regional departments of the Chamber of Advocates of the Republic of Uzbekistan”.

This regulatory legal document defined the main tasks of the qualification commission. Also, through direct tasks, it gives an opportunity to know the necessity and peculiarities of this structure. As a result of the changes made in the field of advocacy, the expansion of the activity and authority of regional qualification commissions increased the importance of these structures. A total of 14 regional qualification commissions existing in the territory of the Republic initially fulfilled the tasks of taking the qualification exam from applicants for the status of a advocates and taking the advocate’s oath from applicants who successfully passed this exam, according to paragraph 1 of the Regulation. According to the order of the Minister of Justice of the Republic of Uzbekistan No. 11 of January 9, 2019:

suspension and restoration of the status of a advocates;
awarding a qualification to n advocates;

the tasks of reviewing appeals regarding the illegal actions of advocates were assigned, and the activities of the regional qualification commission were expanded.

The order of the Minister of Justice of the Republic of Uzbekistan No. 20 of November 30, 2021 defines the specific purpose of the establishment of regional qualification commissions, and states that they are to be established by advocates to review disciplinary proceedings on violations of the requirements of legal documents, the rules of professional ethics of advocates, the secrecy of the practice of law and the violation of the advocate’s oath.

Experienced employees of the court, judicial bodies and other organizations in the field of law are involved in the qualification commissions. The chairman and deputy of the qualification commission are elected from among the members of the qualification commission by a simple majority of the total number of members at the first meeting of the commission. Candidates for the chairmanship of the qualification commission and his deputy will not participate in the voting. The deputy chairman of the qualification commission presides at the meeting of the qualification commission in the absence of the chairman. One person cannot be a member of the Qualification Commission and the Higher Qualification Commission at the same time. Candidates for the membership of qualification commissions from advocates are submitted from among the advocates who are included in the relevant state register of advocates and have



at least five years of experience in the legal profession. Employees of the Chamber of Advocates and its regional offices, their close relatives cannot be members of the qualification commission. In the performance of assigned tasks, qualification commissions must objectively and comprehensively consider the issues included in the qualification agenda, strictly comply with the legislation, the main principles of advocacy, ensure guarantees and protection of advocacy, advocate's integrity, non-interference in advocacy, decisions of the Supreme Qualification Commission under the Chamber of Advocates of the Republic of Uzbekistan perform obligations such as execution.

It is also appropriate to turn to foreign experience of qualification commissions in order to study the organizational and legal basis of the establishment of qualification commissions and to shed light on the critical analysis of this issue. In particular, the National Bar Council in Ireland is an alternative body to the functions of the Bar and Qualifications Commissions in our practice. The National Bar Council is a body that protects the rights and interests of advocates, along with providing advocates and legal experts to citizens in need of legal aid, and in the language of Irish advocates, it is the "Shield of Advocates". The existence of the National Bar Council is essential to the development of the framework for a National Bar Council in Ireland and to create an enabling, integrated context for the effective practice, qualification, development and coordination of the Bar. The establishment of the National Bar Council covers all relevant government agencies, in particular, other government agencies such as Health, Justice, Employment and Social Protection, the Office of the Ombudsman, the Mental Health Commission, as well as legal educational institutions.

On the same issue, Article 50 of the Law of Ukraine "On Advocacy and Legal Practice" describes the Qualification and Disciplinary Commission of the Bar. In accordance with it, a qualification and disciplinary commission of the bar association will be established to determine the level of professional skills of persons who intend to acquire the right to practice law, and to resolve issues related to the disciplinary responsibility of advocates. The Bar Qualification and Disciplinary Commission is supervised by and reports to the Regional Bar Conference. Based on the information analyzed above, it is appropriate to review the activities of the qualification commissions under the regional offices of the Chamber of Advocates and make the following changes. In particular, it is necessary to turn qualification commissions into permanent bodies and to



finance them from the funds of the Chamber of Advocates. Secondly, the members of qualification commissions should consist only of advocates who have been engaged in the practice of advocacy for at least 5 years, it is necessary to limit the presence of employees of state administration and law enforcement agencies in the commission. Also, termination of the authority of the qualification commission to review the issue of disciplinary liability of advocates, introduction of the implementation of this issue by the courts in a general manner would have positively changed the approach to the issue of bringing advocates to disciplinary liability.

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THE USE OF INTERNET RESOURCES IN TEACHING RUSSIAN AS A FOREIGN LANGUAGE

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Abstract

The article is devoted to the use of Internet resources in the modern practice of teaching Russian as a foreign language (hereinafter - RCT). Currently, a huge number of training resources on RCTs are being created and uploaded to the World Wide Web, but the format for their integration into the educational process has not yet been established. The relevance of this study is due to the need to determine the effectiveness of educational Internet resources.

Keywords: Russian as a foreign language, e-learning tools, information and communication technologies, blended learning, Internet in teaching Russian as a foreign language.

The active use of electronic resources is becoming an integral part of the modern model of the educational space, the distinctive features of which include "greater openness, accessibility and flexibility due to the widespread use of self-education tools based on new information and communication technologies", the use of which "contributes to the development of internal motivation of students to obtain new knowledge". To date, the Internet offers a large number of educational resources on Russian as a foreign language (hereinafter referred to as RCTs) of various types, which can be found on websites, portals, social networks, as well as functioning in the form of mobile applications. In connection with the increased role of information and communication technologies (hereinafter - ICT) in the educational process, large Russian universities - training centers for foreign citizens - have actively joined the creation of such materials. .

The main characteristics of the analyzed materials are determined and the possibilities of their use in training in courses and in additional general education programs that provide preparation for foreign citizens and stateless persons for the development of professional educational programs in Russian language are indicated. The use of e-learning resources in the context of a rapidly decreasing number of classroom hours makes it possible to ensure the full independent work of the student, but only in the format of blended learning, which involves the



integration of training using ICT into the traditional classroom form, or, in other words, a combination of two learning environments - real and virtual.

In the last decade, the Internet has firmly entered all spheres of our lives, including the educational space. Currently, in the context of the intensification of RCT training, the issue of using e-learning tools is acute, and therefore the problem of the quality of online resources, as well as the forms of their integration into the educational process, comes to the fore. When using online resources, the question arises about the material and technical base of Russian universities. Unfortunately, it cannot be argued that all universities can provide their students with access to these resources. To a certain extent, the problem is solved by the availability of classes equipped with computers or laptops, but the number of such universities in Russia is clearly small, given that the training of RCTs takes place not only in the main educational programs, but also in additional general education programs, which are not always supported by a good material base. In addition, despite the high prevalence of various kinds of devices in trainees, at the moment it is impossible to talk about the full implementation of one of the basic principles of online education - availability at any time.

In the last decade, the Internet has firmly entered all spheres of our lives, including the educational space. Currently, in the context of the intensification of RCT training, the issue of using e-learning tools is acute, and therefore the problem of the quality of online resources, as well as the forms of their integration into the educational process, comes to the fore. When using online resources, the question arises about the material and technical base of Russian universities. Unfortunately, it cannot be argued that all universities can provide their students with access to these resources. To a certain extent, the problem is solved by the availability of classes equipped with computers or laptops, but the number of such universities in Russia is clearly small, given that the training of RCTs takes place not only in the main educational programs, but also in additional general education programs, which are not always supported by a good material base. In addition, despite the high prevalence of various kinds of devices in trainees, at the moment it is impossible to talk about the full implementation of one of the basic principles of online education - availability at any time. The importance of the computer in the process of language learning is also evidenced by the field of methods of language teaching - computer linguodidactics, which has been rapidly developing in recent decades. M.A. Bovtenko, a domestic specialist in the field of computer linguodidactics, rightly argues that, "being an interdisciplinary field of



knowledge, computer linguodidactics is closely related to the development of information technology, applied and mathematical linguistics, developments in the field of artificial intelligence, computer program design, theory and practice of computer learning in general."

The main characteristics that distinguish modern EDOs include compactness, great expressive possibilities in the presentation of educational material, or multimedia (video, sound, dynamic images - animation, virtual reality), interactivity, hypertextuality. Among the requirements for EDOs, we can name the presence of four interrelated functionally-oriented parts, or modules: presentation (its main function is the introduction of new training material), information and reference (the main function is the explication and semanticization of the input material), training (the main function is to develop skills in using the introduced new material), controlling (the main function is to check the assimilation of the introduced material).

Education on the Russian" is an educational portal created by the State University. IRA named after A.S. Pushkin. To register, the user must send an application through social networks or mail. After passing the test, the trainee is recommended a program of the appropriate level. The description of the elementary level course and its structure is given in Russian, and starting from the basic one it is translated into foreign languages. For study, topics relevant to the specified level are offered.

The course contributes to the formation of communicative competence in students planning to continue their studies in the areas of "Linguistics and Literary Studies", "Cultural Studies and Socio-Cultural Projects". Consistent systematic passage of the course will allow a foreign student to expand knowledge of RCTs in a comprehensive form. The presented work is a good example of a full-fledged course of electronic foreign language education.

When considering the educational content of two large portals "Open Education" and "Education on the Russian", the common problem of cumbersome portals becomes obvious - the distance of authors-methodologists from developers-programmers. This is manifested in the peculiarities of navigation, which is not always human friendly. Methodologists, when writing ESO scripts, must take into account their features: nonlinearity, multi-media and others, since a simple transposition of traditional manuals into an electronic form is not enough. In many universities, to stimulate authors who create electronic manuals, requirements are adopted according to which the development of ESO is equated



to the publication of a printed publication. In GOST, these the criteria are also indicated, but they can be interpreted too broadly: "a multimedia electronic publication is an electronic publication in which elements of a different nature of the main information are reproduced interrelated with the help of an appropriate software shell. Multimedia publications include audiovisual publications in which information is presented in digital form, including as the main material an audiovisual work (one or more) in the form of a fixed series of interconnected images (accompanied or unaccompanied by sound)", and further: "educational electronic publication - an electronic publication containing systematized information of a scientific or applied nature, set forth in the form of, convenient for learning and teaching, and designed for students of a certain age and degree of study."

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LEIOMYOSARCOMA OF THE KIDNEY WITH MASSIVE THROMBOSIS OF THE INFERIOR VENA CAVA: A CLINICAL CASE AND A REVIEW OF THE LITERATURE

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Leiomyosarcoma (LMS) is a rare malignant tumor of smooth muscle origin that usually arises from soft tissues, reduced due to smooth muscle or vessel walls of venous origin. Renal leiomyosarcomas arise from the smooth muscle tissues of the renal pelvis, renal capsule, or renal vessels, and are most commonly encountered. This article presents clinical cases of diagnosis and surgical treatment of renal leiomyosarcoma found in the renal pelvis, complicated by extended thrombosis of the vena cava inferior (VCI).

Key words: leiomyosarcoma of the kidney, thrombosis, vena cava inferior. Introduction. Soft tissue sarcomas are a rare group of malignant tumors that develop from different types of connective tissue, which are heterogeneous mesenchymal neoplasms, including more than 70 histological subtypes [1]. The incidence of leiomyosarcomas (LMS) is about 0.05% of the total number of malignant neoplasms, about 0.5% of all sarcomas in adults, and 45% of retroperitoneal tumors [2-4]. LMS of the kidney is more common in women with an increase in incidence with increasing age of patients [5]. Renal leiomyosarcoma is an understudied tumor originating from the renal vasculature, renal veins, pelvic muscles, smooth muscle elements of the renal capsule [6,7]. According to its



morphological structure, LMS of the kidney is characterized by fascicular, plexiform/unsystematic growth of spindle-shaped, epithelioid and pleomorphic cells. According to the degree of differentiation, highly and poorly differentiated tumors are distinguished [8]. The ability to invade venous vessels with the formation of tumor venous thrombosis, which spreads along the direction of venous blood flow from the intrarenal tributaries to the renal (RI) and inferior vena cava (IVC) veins up to the right parts of the heart, is a specific feature of kidney formation. Despite advances in drug therapy, surgery remains the only effective treatment for renal pelvic inflammatory disease with tumor venous thrombosis.

Clinical case. The patient, born in 1959, was admitted to the Nano Medical Clinic with complaints of pain in the lumbar region on the right, general weakness since June 2022. From the anamnesis: with the above complaints, she went to the clinic at the place of residence, where the following was performed: ultrasound of the abdominal organs dated September 22 .22: Right-sided urethrohydronephrosis. Education in the projection of the right kidney. The formation of the retroperitoneal space. CT scan of the abdominal organs dated 24.09.22. with v.v contrasting: In the lower half of the right kidney, an irregularly shaped, multi-nodular, heterogeneous solid structure with fuzzy uneven contours, density +26+45+55, is determined. In the phase of contrast enhancement, there is an intense inhomogeneous accumulation of a contrast agent, with the presence in the structure of chaotically located vessels from the right renal artery and the infrarenal aorta. The mass, 10x13.2x11.5 cm in size, spreads extraorganically with signs of germination in the IVC, with the spread of a thrombus in the lumen of the latter 5 cm proximal to the level of the renal veins and 8 cm caudal. The formation grows into the n/3 of the ureter, spreading into the anterior pararenal space, grows into Gerota's fascia, infiltrates the ascending colon and the 12th duodenum, closely adhering to the psoas major muscle. The surrounding tissue is infiltrated. Paraaortally, in the mesentery of the large and small intestines, the greater omentum, multiple lymph nodes are determined, 8 mm in size. (Figure 1)

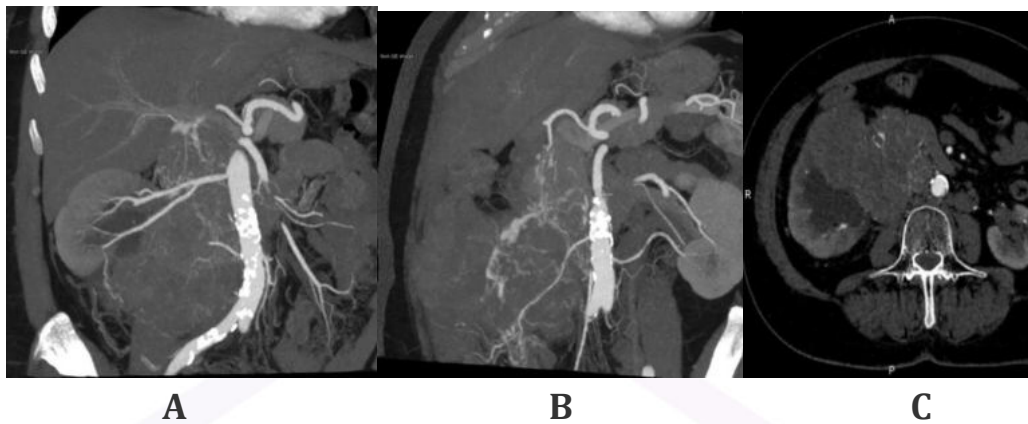


Figure 1. CT scan of the abdominal cavity with IV contrast in the arterial phase (A, B) in the portal phase (C):

A) in the retroperitoneal space on the right, an irregularly shaped multinodular volumetric formation with clear, uneven contours emanating from the right kidney is determined, pushing the abdominal aorta contralaterally. Against the background of formation, the inferior vena cava is not visualized. Feeding arteries, outgoing and renal arteries, abdominal aorta and superior mesenteric artery are determined.

B) violation of the dichotomy of the feeding arteries with the germination of the formation of the kidney in the right side wall of the abdominal cavity.

C) a volumetric formation 9.0x12.5x11.9 cm in size, growing into the inferior vena cava almost throughout its entire length with the formation of a tumor thrombus, dimensions in the lumen of the vein 45x54x83 mm.

27.09.22 a biopsy of the tumor of the right kidney was performed at the place of residence. Histopathological examination No. 100774\22 dated 09/28/22: Leiomyosarcoma, G-2. The patient applied to Nano Medical Clinic on her own. General condition at admission: moderate severity, clear consciousness, limited active position. The skin and mucous membranes are clean, pale pink. In the lungs, vesicular breathing is absent on both sides. Heart sounds are clear, rhythmic. A \ d - 120 \ 70 mm Hg, Pulse - 85 beats / min. The tongue is moist, coated with a whitish coating. The abdomen is soft, painful in the mesogastric region and in the right iliac region. There are no peritoneal phenomena. Stool and diuresis regular. Based on examinations: X-ray of the chest dated September 30, 22: signs of chronic bronchitis. Bone scintigraphy dated 01.10.22: data on specific damage to the bones of the skeleton was not received



Dopplerography of the arteries of the abdominal aorta from 03.10.22: In the abdominal cavity from the right half with a transition to the left to the level of the sigmoid intestine, an irregularly shaped space-occupying formation is visualized, echononhomogeneous, with a fuzzy contour, 160.0x63.0x84.0 mm in size. Compresses the abdominal aorta. The contours of the vessel are uneven, clear, the vessel is passable. The aorta at the level of the bifurcation, the superior mesenteric artery, the inferior mesenteric artery, the celiac trunk behind the formation is not clearly located. Endoscopy dated 03.10.22: catarrhal gastroduodenitis. Colonoscopy dated 03.10.22: The mucous membrane is hyperemic. In the zone of the hepatic flexure, there is compression of the lumen, possibly from the outside, the device is not passable. In the lumen there are clots of intestinal contents. Radioisotope examination of the kidneys with a technician dated 04.10.22: Left kidney: Max. accumulation time -5 min. The half-life before the introduction of furosemide is 10.19 minutes, the half-life after the introduction of furosemide is 16.28 minutes. Right kidney: Time max. accumulation -23 min. The elimination half-life before the introduction of furosemide has not come. The half-life after the introduction of furosemide has not come. Conclusion: A sharp violation of the secretory and excretory function of the right kidney. (pic 2)

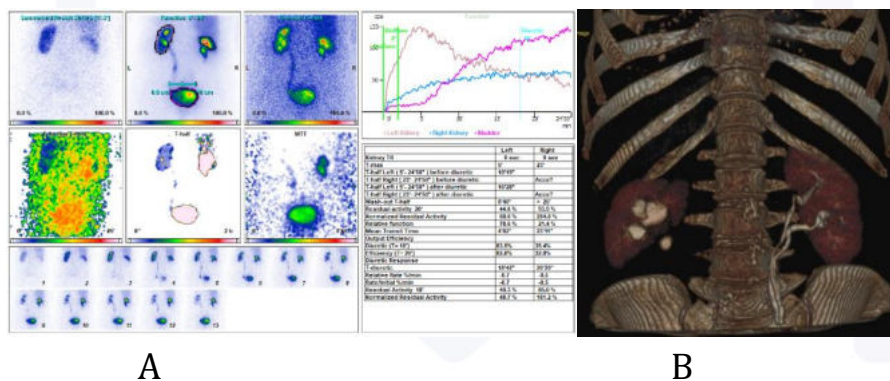


Fig 2. A) Examination of kidney function with Tc 99m MAG isotope 3 Dose 2 mCi. Relative functional involvement of the kidneys: Left kidney - 78.6%. Right kidney - 21.4%. Relative functional involvement of the kidneys: Left kidney - 78.6%. Right kidney - 21.4%. Scintigraphically, the location of both kidneys is normal, the contours are even, clear, the right kidney is reduced in size. The curves are asymmetrical. Radiographically: the accumulation of radiopharmaceuticals in the right kidney is slow, excretion



did not occur during the study. C) Excretory phase of abdominal CT: Functional involvement of the left kidney with doubling of the pyelocaliceal system and the left ureter. The right kidney is not functioning.

A clinical diagnosis was established: Cancer of the right kidney with ingrowth into the wall of the IVC, tumor thrombus, stage III cT4NxM0. Complications: Ureterohydronephrosis on the right. Pain syndrome. On the basis of clinical and instrumental data, the decision of the council on 06.10.22. performed surgical treatment for health reasons in the amount of right-sided nephroadrenalectomy, resection of the wall of the inferior vena cava, thrombectomy, appendectomy. Revision: in the right half of the abdomen there is a tumor conglomerate emanating from the retroperitoneal space, including the right kidney, right adrenal gland, mesentery of the ascending section and the hepatic flexure of the colon, retroperitoneal tissue. The tumor pushes and squeezes the right half of the colon up and to the left. The tumor passes medially beyond the midline. Palpation to identify the hilum of the right kidney, the condition of the renal vessels, the inferior vena cava, the abdominal aorta is not possible due to the large size of the formation. The formation is dense, the surface is bumpy in places, with decay and ulceration, limited displacement. The liver and mesentery of the small intestine are not changed, the left kidney is of normal size. There were no signs of dissemination of the tumor process. The process is recognized as locally widespread and complicated. Protocol of the operation: the tumor conglomerate was mobilized in an acute way. The right ureter is mobilized, ligated and transected above the mouth of the bladder. The adrenal artery and vein were treated separately. In the lumen of the inferior vena cava, a tumor thrombus was determined, 6.5 cm long. The proximal border of the tumor thrombus in the lumen of the IVC was located 5 cm above the confluence of the left renal vein. The distal border ended above the bifurcation of the iliac vessels, 8.0 cm long. The total length of the tumor thrombus was 14.0 cm. The renal artery and vein were treated separately. The end of the appendicular process is intimately soldered to the tumor, where there was a rasad and ulceration. A pathologically compacted area at the end of the appendicular process is identified by palpation. An appendectomy was performed. The drug has been removed. The inferior vena cava, the left renal vein were taken on a



tourniquet, mobilized along the proximally and distally retreating from the tumor thrombus. In the projection of the renal veins, the anterior wall of the inferior vena cava was dissected for 9.0 cm. The wall of the inferior vena cava was sharply mobilized, and the tumor thrombus was removed. An excision was made.

The section of the walls of the inferior vena cava is intimately soldered to the tumor thrombus. (Fig. 4.5) The lumen of the inferior vena cava was sanitized with 0.9% NaCl, the integrity of the wall of the inferior vena cava was restored with atraumatic vascular sutures No. 5.0. The blood flow has been restored. Hemostasis control. Performed dissection of tissue with lymph nodes and lymphatic vessels along the abdominal aorta and inferior vena cava. The abdominal cavity is carefully sanitized and drained in the right hypochondrium and right iliac region. Macropreparation: Right kidney with formation and perirenal adipose tissue with a total size of 18x15x11 cm. Kidney with a formation measuring 15x15x11 cm. Formation of a dense consistency, gray-whitish color, size 11x13x11 cm, uneven color, hemorrhages. (Fig. 6,7,8) Tumor thrombus in the lumen of the inferior vena cava, length 14.0 cm, diameter of the proximal part 6.5 cm, distal part 4.5 cm. Tumor thrombus of a dense consistency of whitish light. On the section, the tumor originates from the lower pole of the right kidney, affects it subtotally. Blood loss -1600 ml. The duration of the operation is 3:45 min. The postoperative course is smooth. Healing by primary intention. The patient was discharged from the hospital after 8 days. Pathomorphological conclusion No. 101812/22 dated 9.10.22: leiomyosarcoma of the right kidney, G2; 12 lymph nodes with reactive hyperplasia; obturating tumor thrombus; portal vessels and ureter without tumor lesions. IHC No. 102220329050 dated 10/11/22: leiomyosarcoma of the right kidney. Reactions for CD34, SMA, Desmin in tumor cells are positive; negative for CD117, DOG1, S100, STAT6, Myogenin, MyoD1. The Ki67 proliferation index is 70%. SDHB is preserved.(Fig.9)



Fig 3. Intraoperative photo: the lumen of the inferior vena cava is filled with a tumor thrombus. The inferior vena cava proximally and distally retracted from the tumor thrombus was taken on a tourniquet. The left renal vein was isolated on a tourniquet.



Fig 4. Intraoperative photo: the anterior wall of the inferior vena cava is dissected. A tumor thrombus is visible in the lumen.

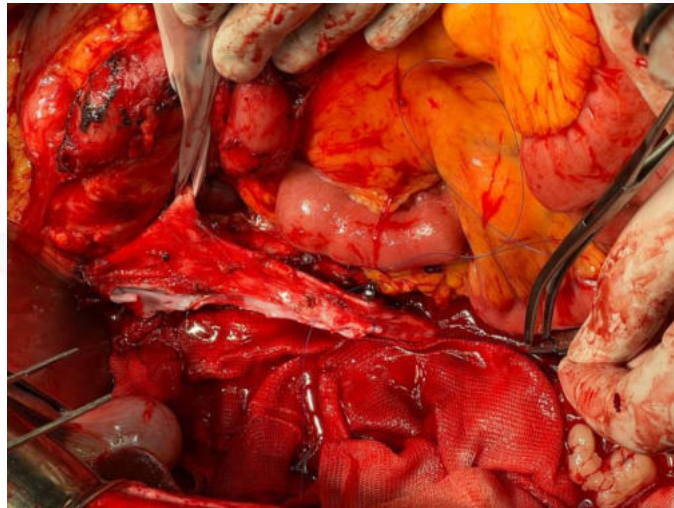


Figure 5. Intraoperative photo: lumen of the inferior vena cava after removal of the tumor thrombus.



Figure 6. Right kidney with tumor. When cut (in the preserved area), the cortical and brain parts are distinguishable. The cortex is light brown, the medulla is dark brown. The calyces are cystically dilated.

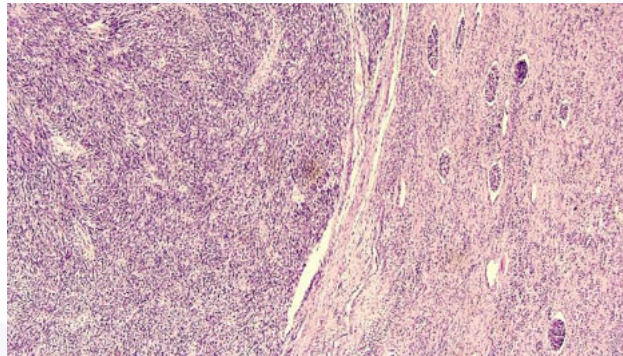
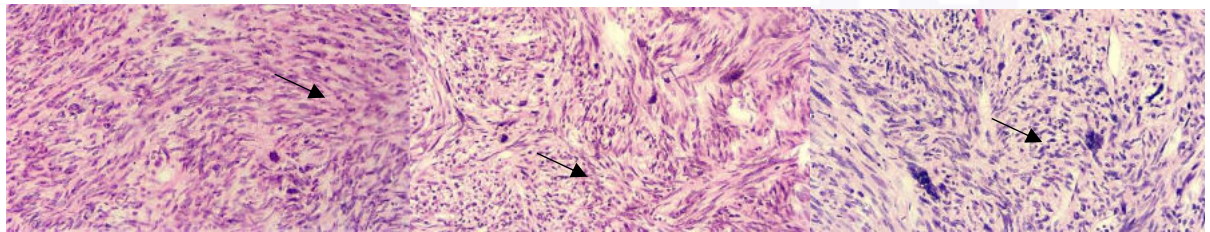


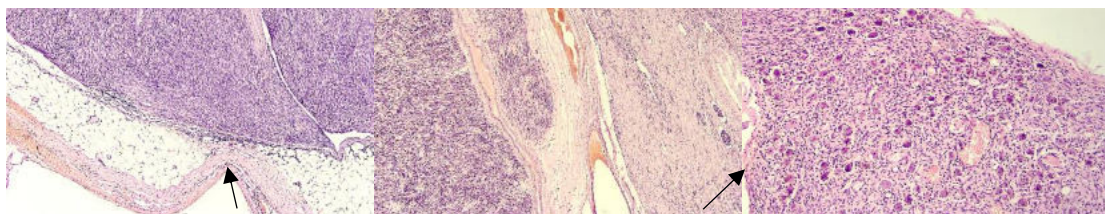
Fig.7. Microscopic picture of the tumor of the right kidney. Tumor kidney tissue (left) at the border with the unaffected area (right). The tumor tissue consists of multidirectional, intersecting bundles, moiré structures formed by polymorphic, spindle-shaped cells with elongated atypical nuclei on the border with the renal tissue with small anemic glomeruli, some of them in a state of sclerosis, thickened capsules.



A

B

C



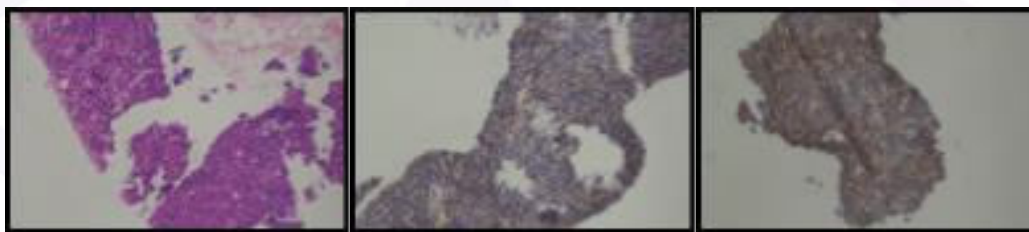
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E

F



Rice. 8. Leiomyosarcoma (tumor thrombus) (x20). A-B Tumor tissue is represented by multidirectional bundles of elongated smooth muscle cells, with rounded or oval polymorphic nuclei with numerous mitoses. Among which there are random accumulations of large polymorphic, with large ugly, hyperchromic one (A, B) or several nuclei with many mitoses (C). The formation is surrounded by a connective tissue capsule with hemorrhages in the wall (D). Large blood-filled arteries in the middle of the tumor tissue (right) and on the border with the unchanged part of the renal tissue (left). (E). Adjacent renal tissue with small anemic glomeruli, some of them in a state of sclerosis, thickened capsules. (E)



H&E

CD34 (QBEND-10)

DESMIN (GM 007)

Rice. 9. Immunohistochemical examination of the right kidney tumor (×200). In tumor cells, diffuse and pronounced staining with hematoxylin and eosin (HE), expression of CD34 hematopoietic cells and desmin is detected.

Discussion. Leiomyosarcoma of the kidney does not have any specific clinical and radiological signs; at present, the diagnosis is confirmed by the result of a morphological study after the surgical intervention. Clinical manifestations are nonspecific: pain in the abdomen and lumbar region, hematuria. The main problem is that traditional instrumental research methods do not allow sufficient differential diagnosis of LMS and renal cell carcinoma. Renal vein LMS is often mistaken for renal cell carcinoma prior to surgery [9]. To date, treatment options for LMS of the kidney are the subject of discussion, however, according to a few foreign studies, the method of choice, given the high potential of the tumor to local recurrence, is radical nephrectomy, which provides better oncological control and 5-year survival rates [10, 11]. Our clinical example, where, taking into account the prevalence of the process, according to vital indications, radical nephrectomy was performed on the right, thrombectomy, and paraortal lymphadenectomy are highly complex operations that required resection of the wall of the main vessel with



angioplasty, requiring adequate anesthetic and transfusiological support. Under conditions of IVC occlusion, a hypertrophied collateral bed in the form of thin-walled, randomly located veins further complicates the situation.

Complete removal of a thrombus without the risk of fragmentation and embolism requires confident control of all large vessels in the area of intervention. Do not ignore the lumbar veins, bleeding from which can be very intense. Attempts to “blindly” remove a thrombus (for example, with a balloon probe) carry the additional risk of leaving residual thrombotic masses containing tumor cells on the vein wall. This significantly increases the likelihood of generalization of the tumor process and local recurrence [12]. Thus, the radical removal of a thrombus creates prospects for the recovery of patients. According to a number of clinical observations [13-15], adjuvant/neoadjuvant chemotherapy/radiation therapy can be used in the treatment of PMLS. However, no randomized trial has demonstrated a significantly significant improvement in survival rates. Thus, according to P. Beardo et al., a 69-year-old patient with LMS of the kidney after radical nephrectomy with lymphadenectomy without adjuvant chemotherapy has no signs of progression and relapse for 5 years [16]. The works of G. Bath [17], Y. Kwon [18] describe observations of patients with renal leiomyosarcoma after radical nephrectomy with a follow-up of 3 months and no signs of recurrence. Leiomyosarcoma of the kidney usually has an aggressive course of the disease with a poor prognosis [19]. The main prognostic factor is total surgical resection. In the case of R0 resection, the 5-year recurrence-free survival can be 60%. In addition, for low-grade and high-grade tumors, the 5-year disease-free survival rate is 90% and 30%, respectively [19,20]. For R1 resection, adjuvant chemotherapy is indicated [21]. The most preferred chemotherapy regimen is the gold standard treatment for soft tissue sarcomas, an anthracycline/ifosfamide-containing regimen [22]. Also, a phase II study described the possibility of using tyrosine kinase inhibitors in patients with relapsed and refractory soft tissue sarcomas, mainly with leiomyosarcoma, liposarcoma, and fibrous histiocytoma [23].

Conclusion. Leiomyosarcoma of the kidney is a rare tumor where the gold standard of treatment is surgery. There are complicated forms of renal leiomyosarcoma in the form of venous thrombosis of the inferior vena cava, which require adherence to the principles of oncosurgery and the inclusion of elements of reconstructive surgery.



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KINEMATIC ANALYSIS OF THE LAST STEP AND RELEASE STAGE IN MEN'S JAVELIN THROW

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Abstract

The purpose of this study was to investigate the two-dimensional kinematic variables about the last step and release phase of the throwing technique of men's javelin throwers. For movement analysis, data were collected on 6 Iraqi javelin throwing athletes at the Iraq Championships in 2019. Recorded full-body video of athletes and javelin throwers during competition with a camera. High Speed (Casio Exilim EX-F1) set to 300 fps. The camera was positioned to the right and perpendicular to the runway to record the sagittal plane video. 2D coordinates were collected using (SkillSpector V1.3.2) software. The time, distance, speed, and angle around the last step and launch stage were analyzed, and the following was achieved; In order to throw the javelin effectively, subjects seem to spend more time on approach in the landing phase, and shorter delivery time in the release phase. On launch, it appears that the other items except player A1 are throwing in a state below their height. This result showed a slowdown in the speed of the project. To increase the projection velocity of the upper limb, joint in the launch event, it appears to extend the angle of the shoulder rather than increase the extension of the elbow joint. The body center of gravity angle body showed an almost incremental increase on the vertical axis in the firing event. But the anterior inclination angle of the trunk showed a small angle compared to the increase of the body by the body center of gravity angle. Therefore, in order to effectively transfer the momentum of the whole body in the javelin, the forward and backward inclination angle of the torso appears to rapidly transmit the angle displacement in the arc position or crescent state during the delivery motion of the launching stage. Therefore, Iraqi javelin throwers must practice the proper height, angle, and speed of the spear while firing. In order to achieve the effect of increasing the javelin throw distance further in the competition.

Keywords: posture, body angle, Torso tilt angle, landing.



1. Need for Research

Javelin throw is one of the track and field events that has been adopted since the ancient Olympic Games and has recently been developed in Cuba, Germany, Finland, etc. It is a record game to see how far a thrower can throw using a run-up in an area with a width of 4m and a distance of 35m. In the case of Iraqis players, who are inferior in terms of physique and physical strength, facing the reality of showing a record difference of more than 20m compared to European and Western players, the most decisive factor in athletic performance is throwing posture and kinematics. is being given importance.

According to the rules, the javelin must only be carried in the designated area and the javelin must be thrown over the shoulder or upper arm. Throwing or throwing is not permitted in this competition. The rules for the javelin competition are set by the International Association of Athletics Federations (IAAF). The height of the spear, the angle of the spear, the speed of the spear (Saratlija,2013) (Morriss,1996). These factors coordinate the movements arising from the action of the muscles and joints in different parts of the body. And that achieving the farthest throwing distance requires an ideal approach speed, in which the shooter gets acceleration in the first part of it, and then obtains the optimal position of the body and the spear in the second part (the weighted step), at the end of which is the preparation process for throwing (Al-Hashimi, 1999).

Looking at preceding studies on the kinematics of javelin throw, (Hubbard ,1989) reported that the position, speed, posture, and angular velocity at the moment of release can be achieved at the optimum condition to obtain the maximum flight distance, and (Ikegami 1981) In order to increase the flight distance, the instantaneous speed of the release must be raised to the maximum by increasing the acceleration as much as possible, and (Rich ,1984) et al. It was said that speed and height differed in physique and physical condition. (Komi & Mero ,1985) and (Ikegami ,1981) reported a significant relationship between run-up speed and throwing distance. (Barrlett ,1982) and (Hay ,1985) reported the characteristics of cross-step and run-up speed. (Miller & Munro ,1983) studied the run-up step and release motion with elite players, and (Bartlett & Best ,1988) reported an increase in release speed and the maximum reachable distance when releasing. (Bosen ,1981) reported on the kinematic analysis of accelerating the speed of the supporting foot and spear at the moment of throwing a spear. (Ikegami ,1981) and (Terauds 1978) reported on the release angle and throwing distance, and (Mero ,1994) analyzed the contribution of each



segment according to the release. reported to increase. (Roger & Russell 1988) reported the relationship between maximum release speed, knee flexion and performance. Based on these studies, kinematic analysis of male javelin throwers is provided as basic data for improving athletic performance. In particular, it has a very important meaning in analyzing male javelin throwers in the absence of research on male athletes in Iraq. In addition, the answer to the question of what kind of landing action should be taken to throw the spear as far as possible has not yet been clarified. Therefore, this study aims to analyze the kinematic factors that appear in the release phase according to the final run-up and delivery motions.

And since there is a very delicate relationship between the approximate running speed and the process of launching the spear, and therefore the distance traveled by the spear depends on the speed and angle of launch. Bios Feld indicated that the mechanical characteristics of good spear throwers are the length of the last step (the push step) and the angle of the front knee at the moment of touching the ground. And the moment of the appearance of the stretched arc and finally the moment of the spear's launch, as well as the speed of the spear's launch and its angle (Tidow,1996) from this, the importance of the research was evident in the detection and analysis of the last step and its importance and impact on the completion distance, as well as the weakness of the digital level, which led the researchers to analyze the last step kinematically, as well as identifying weaknesses and diagnosing the defects from the side The mechanic to be one of the factors that helped advance the reality of this effectiveness

2. Research method

1. Subject of research

The subjects of this study were selected from the top 6 athletes who advanced to the men's general javelin throw final in the National Track and Field Championships in June 2019, and their personal characteristics are shown in (Table 1).

Table 1. Characteristics of research subjects

subjects	Height(cm)	weight(kg)	best record(m)
A	165	63	66.10
B	174	77	66.81
C	166	58	70.15
D	169	70	55.10
E	170	68	74.70
F	170	58	47.20
M	172.5	72.17	63.34
SD	1.87	2.93	10.23

2. Experimental procedure

The data was captured using a high-speed camera (Casio Exilim EX-F1) set at (300) frames per second. To record a video covering the athlete's body and the javelin as it launches for the last (5 meters) of the runway. The position of the camera set to the right and perpendicular to the runway to record the sagittal plane video is shown in Fig. 1. The recordings in this study. The camera was (1m) above the ground and perpendicular to the runway for a distance of (8 m). Video was recorded as all subjects performed the javelin in the race from start to finish. Along with recording the distance traveled for each of the participants. Which was endorsed by the Jury After that, the video of each participant's longest flying distance was selected to analyze the height, angle and speed of the javelin on the computer using (SkillSpector V1.3.2). Frame calibration (2m x 2m) consisting of 9 coordinate points and placed in the location of the player's movement

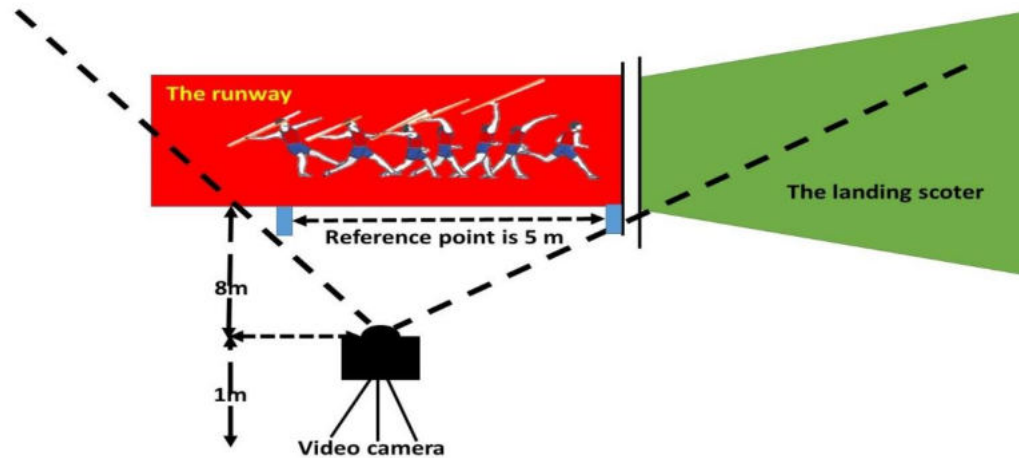


Figure 1. Location of the camera to record video.

The analysis phase of this study (Figure 1)was classified into a total of two phases and the kinematic variables for each phase were analyzed.

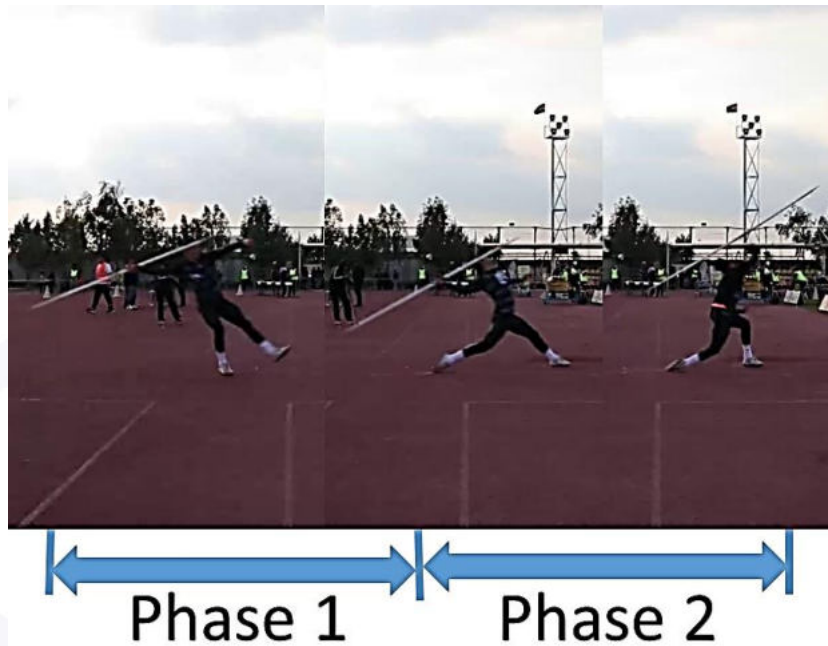


Figure 2. Analysis intervals and phases

Phase 1 (support phase): From the landing of the force foot to the moment of landing of the support foot.

Phase 1 (Release Phase): From the moment of landing with support to release.

3. Results and Discussion

1. Landing Phase

(Table 2) shows the kinematic characteristics of the landing phase. Looking at the performance time for phase 1 from the moment the strength foot lands on the ground to the moment the supporting foot lands, the average time was 0.14 ± 0.02 sec, which was slightly faster than the 0.21 ± 0.03 sec of (Mero et al ,1994). According to (Mero et al ,1994), it was reported that if the time required from the strength foot to the landing of the support foot is long, as the stride length increases, the center of the body is lowered and the momentum transmitted to the spear is greatly transmitted. The subject who showed the longest time was A1, which was 0.17sec, and the subjects who showed the shortest time were A2, A3, and A4, which were 0.13,0.12,0.13 sec, showing some variation among subjects.



Looking at the horizontal movement displacement of the midship of the body, it was 92.2 ± 18.89 cm, indicating that there was a lot of variation among subjects, and in terms of the ratio according to height, subject A6 showed the largest displacement at 112.1 cm, and subject A4 showed the largest displacement at 66.9 cm. The shortest displacement in cm is shown respectively.

It is thought that the large movement displacement is due to the release action while taking a rearward posture when landing on the support leg. A short movement displacement can be seen as turning the center of gravity forward. It can be seen that it is important to increase the amount of exercise while pushing the upper body to the foreground posture as much as possible while taking the upper body in the rearward posture until the movement.

Looking at the corresponding change in the height of the center of the body, it was found that the greater the displacement of the subject, the greater the change in the height of the center of the body. According to Bosen (1981), if the stride between the support foot and the strength foot is too wide, as it is lowered, the degree of arch becomes more severe, which can increase the elastic contraction force of the muscles, but the height of the center of gravity and release decreases, and as suggested, the distance according to the height of the center of gravity decreases. It was shown that the subjects (A1, A2) who showed a height change of 20 cm and showed small changes of -7.9 cm and -5.2 cm showed good records.

Looking at the change in vertical position of the upper extremity joint points, the shoulder ranged from 116.68 to 109.63 or .64 cm from .06 cm, the elbow from 111.73 or .96 cm to 109.63 or .64 cm, and the wrist from 109.63 to 6.19 cm. It was found that the vertical position of the joint point was lowered with 105.77 tables.69 cm. It can be seen that the high posture when landing on the strength foot lowers with the landing on the supporting foot, which can be seen as preparing for the release motion by extending the arm to the maximum while lowering the center of gravity to increase the speed of the distal segment. Examining the change in velocity of the upper extremity joint, it was found that the joint speed increased faster at the moment of landing of the support leg than at the moment of landing of the power leg. Subjects A1, A3, and A6 did not show a significant change in velocity even when landing on the supporting foot, while subjects A2, A4, and A5 recorded 9.68 m/s, 11.36 m/s, 8.77 m/s, and 9.18 m/s at the wrist and elbow joints, respectively. m/s, 9.47 m/s, and 9.31 m/s for fast speed changes. It was shown that the release motion started before the landing of the



support foot, and it was found that the javelin was thrown without transmitting the momentum according to the landing of the support foot.

Table 2. Kinematic characteristics for the support phase

	Variables	Unit	Subjects						M ± SD
			A1	A2	A3	A4	A5	A6	
1	Landing Time	sec	0.17	0.13	0.15	0.12	0.13	0.16	0.14±0.02
2	Horizontal displacement of the body's center of gravity	cm	101.3	74.2	110.3	66.9	88.4	112.1	92.2±18.89
3	Vertical displacement of the body's center of gravity	cm	-7.9	-5.2	-8	-9	-13.4	-14.3	-9.63±3.51
4	The horizontal height of the shoulder in the touchdown (foot strength)	cm	121	115.1	117.5	110.6	113.4	122.5	116.68±4.55
5	The horizontal height of the elbow when touching down (foot strength)	cm	115.2	110.1	109.4	106.4	111	118.3	111.73±4.29
6	The horizontal height of the wrist at touchdown (foot strength)	cm	117.1	108.3	101.8	107.3	109.5	118	110.33±6.19
7	Shoulder height at touchdown (foot support)	cm	118	107.1	110.2	109.2	105.8	107.5	109.63±4.39
8	elbow height at touchdown (foot support)	cm	105.2	95.1	106.3	96.5	106.4	101.5	101.83±5.02
9	wrist height at touchdown (foot support)	cm	107.2	108.3	113.5	95.8	103.1	106.7	105.77±5.93
10	Horizontal velocity in touchdown of the body's center of gravity (foot force)	m/ s	6.57	6.12	5.98	6.58	5.98	6.44	6.28±0.28
11	Horizontal velocity in touchdown of the body's center of gravity (foot support)	m/ s	5.93	5.88	5.19	5.38	5.51	5.23	5.52±0.32
12	Vertical velocity in touchdown of the body's center of gravity (foot force)	m/ s	-0.84	-0.92	-0.87	-1.1	-0.97	-0.96	-0.94±0.09
13	Vertical velocity in touchdown of the body's center of gravity (foot support)	m/ s	-0.14	-0.21	-0.33	-0.25	-0.18	-0.39	-0.25±0.09
14	velocity resultant in touchdown of the body's center of gravity (foot force)	m/ s	6.78	6.98	6.98	7.88	6.98	7.83	7.24±0.48
15	velocity resultant in touchdown of the body's center of gravity (foot support)	m/ s	6.24	6.61	6.57	6.36	5.95	7.33	6.51±0.47
16	velocity resultant in touchdown of the body's center of gravity (foot force)	m/ s	6.49	5.99	6.47	6.41	5.97	6.67	6.33±0.29
17	velocity resultant in touchdown of the body's center of gravity (foot support)	m/ s	7.4	6.87	7.27	7.68	8.23	6.89	7.39±0.51
18	velocity resultant in touchdown of the body's center of gravity (foot force)	m/ s	7.89	9.18	6.23	9.47	9.31	6.98	8.18±1.36
19	velocity resultant in touchdown of the body's center of gravity (foot support)	m/ s	7.41	9.68	6.88	11.36	8.77	7.89	8.67±1.65
20	Body angle in the force of the foot	m/ s	88.5	87.6	85.8	89.7	87.8	84.5	87.32±1.88
22	The angle of the body in support of the foot	deg	84.7	89.6	88.3	76.6	86.5	79.6	84.22±5.11
23	Torso tilt angle at foot force	deg	-16.4	-16.9	-26.4	-17.3	-7.5	-18.4	-17.15±6.01
24	Torso tilt angle at support of the foot	deg	-10.3	-15.6	-16.1	-16.7	-6.5	-9.1	-12.38±4.30
25	Elbow angle at force of the foot	deg	175.3	174.4	167.8	171.3	177.8	169.3	172.65±3.83
26	Elbow angle at support of the foot	deg	153.3	117.5	138.4	147.5	138.7	151.5	141.15±13.18
27	Shoulder angle at force of the foot	deg	101.4	98.1	102.4	105.7	94.6	110.3	102.08±5.53
28	Shoulder angle at support of the foot		114.5	131.4	128.6	117.6	104.6	115.7	118.73±9.86



Looking at the change in the speed of the center of the body, in the horizontal speed, as the supporting foot landed on both subjects,

From $6.28 \pm 0.28 \text{ m/s}$ to $5.52 \pm 0.32 \text{ m/s}$, it was found that the subject decelerated without much deviation, similar to the speed of $5.6 \pm 0.3 \text{ m/s}$ shown in the study of (Antti et al ,1994). , it was found that the vertical speed decelerated from $-1.03 \pm 0.08 \text{ m/s}$ to $-0.28 \pm 0.12 \text{ m/s}$ without much variation among subjects.

Looking at the characteristics of the angle factors, the angle factors looked at the body pack perception with the vector connecting the center of the left and right feet and the center of the body, the angle of the upper body front and rear angle, and the angle of the elbow and shoulder. The body angle was $87.32 \pm 1.88 \text{ deg}$ when landing on the strength foot, and $84.22 \pm 5.11 \text{ deg}$ when landing on the support foot.

Subject A1 with a small value was found to have the largest arch posture at 84.7 deg , and subject A3 with 88.3 deg , it was found that the support foot landing was made in a posture close to vertical. Looking at the upper body anterior-posterior angle according to the body angle, $-17.15 \pm 6.01 \text{ deg}$ during the force landing, and $-12.38 \pm 4.30 \text{ deg}$ during the supporting foot landing, showing many variations among the subjects. Subjects A1, A3, and A6 showed the opposite characteristics that the upper body rear angle became smaller as the supporting leg landed, whereas the upper body rear angle increased as the supporting foot landed on the subject A2, A4, and A5.

Looking at the characteristics of the shoulder and elbow angles, the elbow was found to be greatly flexed at $141.15 \pm 13.18 \text{ deg}$ in the extended state of $172.65 \pm 3.83 \text{ deg}$. Although it was found to be greatly flexed, the shoulder angle showed a characteristic of extending about 20 degrees, from $102.08 \pm 5.53 \text{ deg}$ to $118.73 \pm 9.86 \text{ deg}$. It was found that the shoulder was also greatly extended.

2. Release Phase

(Table 3) shows the kinematic characteristics from the landing of the support foot to the moment of release.

Looking at the time required from the landing of the supporting foot to the release, the time was $0.16 \pm 0.02 \text{ sec}$, and the overall execution time was $0.31 \pm 0.02 \text{ sec}$, showing a similar time without much variation among subjects.

In particular, it was found that the subjects (A1, A3) who had a longer time in phase 1 showed a shorter performance time in phase 2. This is an important factor in the process of transferring the driving force from the lower extremities



and the torso to the throwing arm with the smoothness of the motor transmission (Mohamed, 2001).

Looking at the horizontal movement displacement of the center of the body, it was 37.3 ± 9.73 cm, which showed a lot of variation among subjects. The horizontal movement distance was 130.68 ± 19.97 cm, which showed a lot of variation among subjects. Subjects A4 and A6 with slightly poor records showed small or large horizontal displacements, respectively, with 101.1 cm and 161.9 cm, respectively, while subjects A1 and A2 with excellent records showed 125.4 cm and 128.3 cm, respectively. If the movement displacement is small, it tends to fail to transmit the momentum to the distal segment because it is not possible to properly block the center of the body when landing on the support foot. characteristics that do not connect indicate Therefore, it is considered an important factor to take a posture suitable for each individual within the range where the center of gravity of the horizontal movement displacement from the landing of the support foot to the release is not excessively low.

Table 3. Kinematic characteristics for the release phase

	Variables	Unit	Subjects						M ± SD
			A1	A2	A3	A4	A5	A6	
1	Time	sec	0.11	0.17	0.12	0.17	0.16	0.15	0.15±0.03
2	Total Time	sec	0.29	0.3	0.28	0.28	0.29	0.32	0.29±0.02
3	Horizontal displacement of the body's center of gravity	cm	27	55.8	33.5	40.3	41.4	42.7	40.12±9.70
4	Total horizontal displacement of the center of gravity of the body	cm	125.4	128.3	140.5	101.1	126.9	161.9	130.68±19.97
5	vertical displacement of the body's center of gravity	cm	11.5	10.7	6.2	5.4	4.7	6.6	7.52±2.86
6	vertical height of the shoulder at release	cm	140.2	125.3	128.3	112.4	116.5	122.9	124.27±9.74
7	vertical height of the elbow at release	cm	163.8	1141.9	150.8	134.1	133.2	145.3	144.85±11.44
8	vertical height of the wrist at release	cm	177.8	151.7	161.6	147	148.1	159	157.53±11.52
9	Horizontal velocity of the body's center of gravity at release	m/ s	3.57	3.18	2.86	3.17	3.25	3.15	3.20±0.23
10	vertical velocity of the body's center of gravity at release	m/ s	0.96	0.91	0.78	0.55	1.21	0.95	0.89±0.22
11	velocity resultant of shoulder at release	m/ s	5.49	5.38	5.38	5.63	5.16	4.53	5.26±0.39
12	velocity resultant of elbow at release	m/ s	10.16	8.66	11.84	10.71	9.41	9.32	10.02±1.14
13	velocity resultant of wrist at release	m/ s	16.88	15.61	15.3	15.11	13.94	13.56	15.07±1.20
14	Body angle at release	deg	86.7	107.8	109.8	96.7	98.4	91.9	98.55±8.95
15	Torso tilt angle at release	deg	19.4	7.5	3.8	4.6	19.7	13.5	11.42±7.16
16	Elbow angle at release	deg	134.2	121.4	128.4	144.3	147.1	144.3	136.62±10.32
17	Shoulder angle at release	deg	147.2	145.6	143.3	147.3	133.1	139.5	142.67±5.52



Looking at the vertical change of the center of the body, it was found that the center of the body increased by an average of 7.52 ± 2.86 cm compared to phase 1, and subjects A1 and A2 showed 11.5 cm and 10.7 cm, and the better the record, the greater the vertical change. As suggested in the studies by Anti Mero (1994) the higher the player with the better record, the higher the height of the center of gravity at the time of release showed the same result as when the support foot landed.

Looking at the heights of the upper extremity joint points at the moment of release, it was found that players with excellent records took the release action at a higher position with 124.27 ± 9.74 cm, 144.85 ± 11.44 cm, and 157.53 ± 11.52 cm. (Miller & Munro 1983), (Gregor & Pink, 1985) and (Bartlett, 1988) reported that the height of the spear at the moment of release should be 15-30 cm higher than one's height, and according to (Hay 1978), the release height is an important factor in determining the throwing distance. As a factor, it was reported that it is advantageous to release at the highest point possible.

However, according to (Terauds, 1978) and (Rich et al, 1985), there was no significant relationship between throw distance and release height.

Pointed out that at the moment of release, it was thrown straight over the head, and the release motion should be performed with the upper body tilted backward. However, in this study, all subjects except for subject A1 appeared to perform the release action at a position lower than their height, so it can be seen that the window was projected without transmitting the momentum of the upper limb segment during the delivery motion. Looking at the characteristics of the horizontal and vertical speeds of the center of the body, it was found that they decreased significantly more than at the moment of landing on the support foot, from 6.28 ± 0.28 m/s at the moment of landing on the support foot to 3.20 ± 0.23 m/s at the moment of release, about 2 m/s or more, and the vertical speed increased by about 1 m/s or more, from -0.25 ± 0.09 m/s to 0.89 ± 0.22 m/s. In particular, there is a lot of variation among subjects in vertical velocity rather than horizontal velocity. In order to increase the projection distance by transferring effective momentum to the distal segment, it was found that the horizontal velocity should be converted to vertical velocity as much as possible at the moment of release.

The release speed is directly related to the throw distance (Komi & Mero, 1985; Miller & Munro, 1983; Terauds, 1978). Looking at the composite speed for the upper extremity joints, the shoulder, elbow, and wrist were 5.26 ± 0.39 m/s,



respectively, $10.02 \pm 1.14 \text{ m/s}$ and $15.07 \pm 1.20 \text{ m/s}$, respectively, showed that the deviation between subjects increased as it progressed toward the distal segment? Which (Barlonietz) considered one of the main variables that affect the throwing distance (Hassan, 2011).

Looking at the body angle at the moment of release, subjects A1 and A6 showed 86.7 deg and 91.9 deg and projected the window in a posture smaller than vertical, and subjects A2, A3, and E exhibited a release motion in a forward tilted posture. Has been shown to take as shown in the anterior-rear angle of the upper body, the postures of all subjects are in the foreground posture. Subjects A1 and A5 showed a large foreground posture, while subjects A3 and A4 performed the release motion in a state close to vertical. Appear. The researchers attribute this to the fact that the kinematic movement of the elbow during the approaching phase influences the speed of the throwing movement and the force of the javelin's launch. Accordingly, by returning the arm aimed backwards to the farthest extent, the angle of the elbow increases and, in turn, the angle of the torso increases in the forward support (Shaker, 2010). Throwing is carried out while leading the spear, and as reported that the upper body should be slightly tilted forward in accordance with the direction of the spear in order to increase the speed by applying more force to the spear, all subjects showed that the upper body tilted forward during the release motion. However, it showed a lot of variation among subjects.

In particular, in order to increase the throwing speed, the change in the upper body anterior-posterior angle should be large, and the angular displacement of about 22 degrees from the landing ($-12.38 \pm 4.30 \text{ deg}$) to the release ($11.42 \pm 7.16 \text{ deg}$) of the supporting foot was shown, and the number of subjects with excellent records It was found that the rock angular displacement appeared large. The shoulder and elbow angles at the moment of release showed $136.62 \pm 10.32 \text{ deg}$ and $142.67 \pm 5.52 \text{ deg}$, respectively. The better the record, the smaller the elbow angle, but the larger the shoulder angle. The angle is large and the shoulder angle is small. However, according to Kami & Mero (1985), the elbow angle was $92.0 \pm 0.19 \text{ deg}$, indicating that the spear should be projected with the shoulder fully extended rather than fully extended at the moment of release.

4. Conclusion

As a result of factor analysis, distance factors, speed factors and angle factors, the following conclusions were obtained.



It is found that the time required for the landing phase from the forceful foot landing to the supporting foot landing should be longer, and the launching procedure should be carried out with a shorter time in the launching phase. At the moment of release, most people were shown with their hands lower than their height, and the resulting projection speed was found to be small. It was found that the shoulder angle should be greatly extended at the moment of release rather than fully extending the elbow by increasing the elbow angle. At the moment of release, the angle of the body, which is the angle between the supporting foot and the center of the body, increased near the vertical axis, but the angle of inclination of the upper part of the body appeared smaller than the increase in the angle of the body. It is found that the angular displacement of the anterior and posterior angle of the upper body should quickly shift in position.

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OPTIMAL PARTICLE SWARM FOR RELIABILITY ALLOCATION TO COMPLEX SYSTEM

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Abstract

In this work, a reliability function is computed for a complex system, along with an optimal reliability distribution among the components of the system to be built. The majority of research to date has adopted exponentially increasing closed functions to relate cost and reliability, despite the fact that it is generally known that component cost is an increasing function of its reliability. In fact, these functions are sometimes ill-defined or difficult to generate, and so it often makes sense to discuss cost-reliability connections between separate datasets. We consider scenarios where each component is offered in a range of reliability levels at varying prices. The nonlinear integer program is the result of a design optimization challenge. We introduce particle swarm optimization (PSO) to calculate system reliability assignment for each system component as well as to calculate overall system reliability since each system configuration has an equivalent representation as either serial communication of parallel subsystems or parallel communication of serial subsystems. The cost of each component of the system was determined using the exponential behavior feasibility factor cost function.

Keywords: Optimization , reliability, reliability allocation , complex system

1. Introduction

In this research, we looked at the complicated system's installed reliability [9, 10]. By leveraging short pathways across connection matrices, this system's





dependability was discovered. All paths are obtained using Boolean algebra, and nodes are then eliminated to produce minimal paths [3, 6, 11, 12].

To find out more about how safe it is to utilize the installed sophisticated system, a reliability function is sought after. Despite the historical basis of the networks, we also examine the mathematical issue of distributing optimal reliability in this study. Based on location importance, the dependability standards for each component of a complex system are optimized. The objective is to increase the system's lifespan and dependability while lowering overall costs [5, 7, 8].

Depending on where they are located in the system, some components may require a high allocation in order to increase overall reliability. Engineers encounter a number of challenges when trying to improve mechanical and electrical systems [4, 6, 14].

This study focuses on the reliability of complex systems as well as the distributing and enhancing the system cost, which can be expressed in terms of size, weight, or other metrics. There are two main elements that affect this component's dependability: The model must be cost-based before the input element may be validated. The suggested cost parameter's specifications can be altered. This facilitates the engineers' analysis of the financial allocations for each system and planning for the attainment of the bare minimum dependability required for each machine component. The analytical dependability of the input system must also be considered by the model. When applied to bigger systems, simple systems can occasionally pose a substantial challenge. The outcomes were obtained using the Particle Swarm, a tool for complicated systems to tackle optimization issues. An exponential behavior feasibility factor were used to calculate the cost.

2. complex system optimization and reliability allocation

Take into account a complicated system with components linked to reliability [5, 17]. We make use of the notes below:

$C_i(R_i)$ = element i cost;

$0 \leq R_i \leq 1$ = reliability i component;

R_s = reliability of the system;

$C(R_1, \dots, R_n) = \sum_{i=1}^n a_i c_i(R_i)$ is the total system cost, in which a_i is greater than 0;

RG = objective of systems reliability.

There are many possible outcomes due to the system's modular design and the unique functions of each component. The same capacity is provided to us via a



variety of system components, each with various degrees of dependability. The system's ability to correctly allocate resources to all components or selected ones is the ultimate goal. Problems are necessary for nonlinear programming [9, 16, 17]. Despite not being linear, the constraint serves a purpose and incurs costs that can be researched:

$$\begin{aligned} & \text{Minimized } C(R_i, \dots, R_i) = \sum_{i=1}^n a_i C_i(R_i), a_i > 0, \\ \text{Subject to: } & R_s \geq R_G \\ & 0 \leq R_i < 1, \text{ in which } i = 1, \dots, n \end{aligned} \quad (1)$$

Let the partial cost function be reasonable and $C_i(R_i)$ satisfies some conditions [12], Positive, differentiated functions, increasing from $\left[\Rightarrow \frac{dC_i}{dR_i} \geq 0 \right]$.

The part costs function of the Euclidean convexity $C_i(R_i)$ analogous to the reality that its derivatives $\frac{dC_i}{dR_i}$ are monotonically increased, i. e. $\frac{d^2C_i}{dR_i^2} \geq 0$.

The system reliability restriction is lowered under R_G , and the prior plan's objective is to achieve an all-out framework cost base [12].

3. implementation in a complex system

In order to estimate the complex system, we need to transform it into a more approachable network, similar to how we would transform a series of objects into a parallel network. In parallel and series networks with n components, the dependability is, respectively:

$$R_s = \prod_{i=1}^n R_i \quad (2)$$

$$R_s = 1 - \prod_{i=1}^n (1 - R_i) \quad (3)$$

Here R_N represents the reliability network and R_i is the reliability of the component i [6,8].

From equations (1) and (2) we will compare the reliability of each complex network with p minimum paths that are given via

$$R_s = 1 - \prod_{z=1}^p (1 - \prod_{j=\alpha}^{\omega} R_j) \quad (4)$$

Here α is the index of the first component, and ω is the index of the last component of a minimal path z . Equation can be used to determine the dependability of the complicated network in Fig. 1

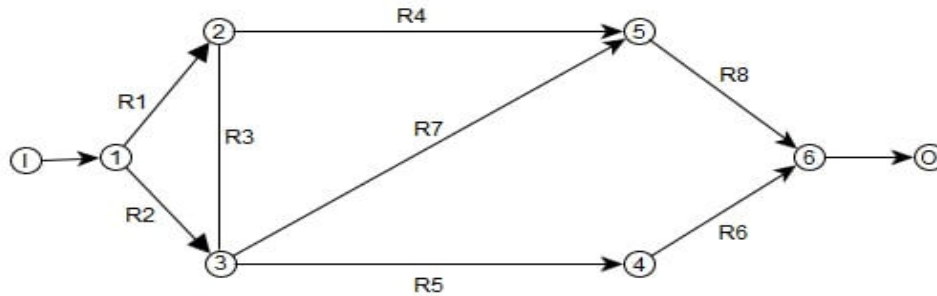


Figure 1: Complex Network

The sets:

$$S = \{\{x_1x_4x_8\}, \{x_2x_5x_6\}, \{x_2x_7x_8\}, \{x_1x_3x_5x_6\}, \{x_2x_3x_4x_8\}, \{x_1x_3x_7x_8\}, \}$$

$$R_S = 1 - [1 - p_r(x_1x_4x_8)] \times [1 - p_r(x_2x_5x_6)] \times [1 - p_r(x_2x_7x_8)] \times [1 - p_r(x_1x_3x_5x_6)] \times [1 - p_r(x_2x_3x_4x_8)] \times [1 - p_r(x_1x_3x_7x_8)] \quad (5)$$

Note: When the i – th component succeeds, then $R_i = 1$, and when it fails, then $R_i = 0 \forall i = 1, \dots, 8$, these lead to $R_i^n = R_i$ [7,9]. By using the note above, equation (5) becomes the following polynomial .

$$\begin{aligned}
 R_S = & R_1 R_4 R_8 + R_2 R_5 R_6 + R_2 R_7 R_8 + R_1 R_3 R_5 R_6 + R_2 R_3 R_4 R_8 + R_1 R_3 R_7 R_8 \\
 & - R_1 R_2 R_3 R_5 R_6 \\
 & - R_1 R_2 R_3 R_4 R_8 - R_1 R_2 R_3 R_7 R_8 - R_1 R_2 R_4 R_7 R_8 - R_1 R_3 R_4 R_7 R_8 - R_2 R_3 R_4 R_7 R_8 \\
 & - R_2 R_5 R_6 R_7 R_8 + 2R_1 R_2 R_3 R_4 R_7 R_8 - R_1 R_2 R_4 R_5 R_6 R_8 - R_1 R_3 R_4 R_5 R_6 R_8 \\
 & - R_2 R_3 R_4 R_5 R_6 R_8 - R_1 R_3 R_5 R_6 R_7 R_8 + 2R_1 R_2 R_3 R_4 R_5 R_6 R_8 + R_1 R_2 R_3 R_5 R_6 R_7 R_8 \\
 & + R_1 R_2 R_4 R_5 R_6 R_7 + R_1 R_3 R_4 R_5 R_6 R_7 R_8 + R_2 R_3 R_4 R_5 R_6 R_7 R_8 - \\
 & 2R_1 R_2 R_3 R_4 R_5 R_6 R_7 R_8
 \end{aligned}$$

4. PSO method

A swarm of particles is a collection of entities with the ideal number of attributes or values to include in a swarm problem space [17, 14].

Communities of people form so that information can be shared. Using the bit string "01110" as an example, a neighborhood is defined in mathematics as "the set of points around a certain position, each within a specified distance from the stated point." The third bit is the one that leaves the location that is given (middle bit). The full bit string, two on the left and two on the right, will fit in the neighborhood of size 3. These neighborhoods can have a range of topologies, despite the fact that their structures are substantially different from the topologies of the ANN. In particle swarm settings, a spherical or star-shaped topology is frequent.

4.1. Implementation of PSO

The evolutionary algorithm PSO requires the creation of random numbers. The PSO algorithm's output is influenced by the caliber and volume of the statistics that are generated. The initial iteration is dispersed across the entire search area. Fig. 2 displays the fundamental implementation of the PSO.



Figure 2. Flow chart of Particle Optimization



4.2. A calculus-based exponential feasibility model

Assume $0 < f_i < 1$ is a feasibility factor [12], $R_{i,max}$ is maximum reliability, and $R_{i,min}$ is minimum reliability.

$$C_i(R_i) = \exp\left[(1 - f_i) \frac{R_i - R_{i,min}}{R_{i,max} - R_i}\right],$$

$$R_{i,min} \leq R_i \leq R_{i,max}, i = 1, 2, \dots, n.$$

The issue with optimization arises

Minimize $C(R_1, \dots, R_n) = \sum_{i=1}^n a_i \exp\left[(1 - f_i) \frac{R_i - R_{i,min}}{R_{i,max} - R_i}\right]$, in which $i = 1, 2, \dots, n$.

Subjected to : $R_s \geq R_G$, $R_{i,min} \leq R_i \leq R_{i,max}, i = 1, \dots, n$.

Table 1:
 Optimum reliability allocation utilizing PSO and GA with an applied cost function.

Components	PSO	COST
R_1	0.94	196.3699
R_2	0.95	854.0588
R_3	0.66	1.3376
R_4	0.94	196.3699
R_5	0.82	3.0938
R_6	0.88	7.9465
R_7	0.94	196.3699
R_8	0.95	854.0588
R_{system}	0.98	2.3096e+03

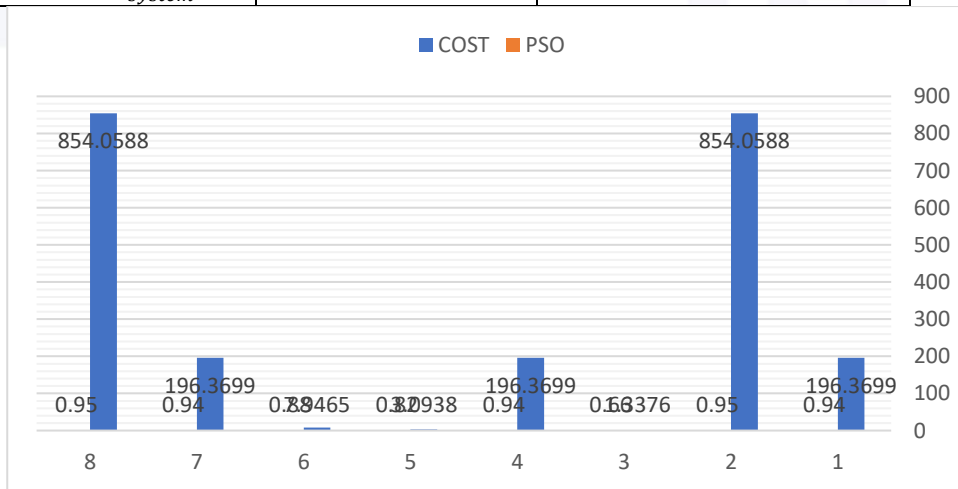


Figure 2: Utilizing PSO to allocate reliability using the given feasibility factor model



5. Conclusion

In this research, the topic of increasing the reliability of a given complex network is addressed. A system optimization problem where the reliability of each component of the system is designed using engineering principles. A nonlinear programming problem with a cost function and labor constraints has also been used to address this topic (reliability of complex systems). The reliability assignment problem was addressed using particle swarm optimization, and the results are, we come to the conclusion that the viability factor model, described above and having values of $R_s = 0.98$. Similar to the dependency allocation problem, component (2, 8) received the largest allocation and cost, while component (3, 5), as shown in the tables above, received the least allocation. Because of where these parts are located within the complex system. The benefit of this model is that each program will be able to do the very difficult mathematical techniques used.

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THE IMPACT OF A PROPOSED REHABILITATION CURRICULUM USING REHABILITATION EXERCISES AND SOME PHYSIOTHERAPY METHODS TO REHABILITATE THE SHOULDER JOINT INJURY IN THE PLAYERS OF THE IRAQI HANDBALL CLUBS IN THE SOUTHERN REGION

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Research Extract

sports rehabilitation is particularly important in the field of rehabilitation to prepare the injured player for his practice of his specialized activities and his return to the stadiums after restoring the basic functions of his body and motor abilities of activity, motor rehabilitation is the process of restoring the anatomical form and functioning of the injured member to such a condition before injury using various motor remedies with the aim of re-establishing the re-emergence. Training and muscle strengthening of the muscle ligaments of the shoulder joint as well as for the most likely to find a period of relaxation within the training program, The shoulder joint is one of the most injured joints as a result is considered a handball game of group games characterized by the behavior of the motor in which the number and awareness due to the presence of the player and opponent and ball in continuous and uninterrupted interaction of events, And high athletic achievement and good results and it can be said that the shoulder joint has a close relationship with the performance of handball players. For the shoulder joint, tide, rounding, dimensions, recycling in and out, maximum strength, carrying strength, degree of pain). As for the research, the rehabilitation curriculum using rehabilitation exercises and some physical therapy methods has a positive impact on the rehabilitation of the shoulder joint in the players injured in the handball game in the southern region .As for the research method, the researchers used the experimental method to suit the nature of the problem to be solved, but the sample of the research was the players with shoulder joint injury and the number of (7)



players injured in the handball game in the southern region, but the most prominent conclusions and recommendations reached by the researchers were The rehabilitation program used increased the muscle strength of the muscles working on the shoulder joint. The most important recommendations recommended by the researchers were that the use of the proposed rehabilitation program in the rehabilitation of injuries suffered by players in the rest of the body.

Key words : Rehabilitation, Rehabilitation Exercises, Physiotherapy Shoulder Joint Injury

1.1 The introduction of the research and its importance

Motor rehabilitation is one of the basic natural means in the field of treatment of sports injuries, and sports rehabilitation is particularly important in the field of rehabilitation to prepare the injured player for his practice of his specialized activities and his return to the stadiums after restoring the basic functions of his body and motor abilities of activity, motor rehabilitation is the process of restoring the anatomical form and functioning of the injured member to such a condition before injury using various motor remedies with the aim of re-establishing **the** re-emergence To practice his activity after his injury and protect the affected area from recurrence of injury and the process of motor rehabilitation depends on the performance of physical exercises of various kinds in addition to the use and use of devices and tools for the purpose of completing treatment and rehabilitation processes, **that the treatment of movement and legalized** exercises aimed at a highly experienced rehabilitation specialist is one of the natural means in the field of motor rehabilitation where this stage is important for the return of the individual affected to his natural condition Hence, refer to exercise in general and its effectiveness in particular. Sports injuries are one of the most difficult things that may occur in the players during his sports career, which is greatly related to the player's high physical fitness and physical health and through experiments I found that many players were forced to leave the game while at the top of their giving due to injuries suffered either during training or matches, that exposure to sports injury was corrected in the players who practice sports events and especially in the game of handball as a result of friction With the opponent as well as not warming up well and other causes or factors that cause the injury. The presence of the injured player



for long periods under treatment and lack of play of the game may lead to the formation of negative thoughts and things about his injury and therefore builds on the perception that the inability to heal and return to his favorite hobby in the practice of the game. The shoulder joint is one of the most injured joints as a result is considered a handball game of group games characterized by the behavior of the motor in which the number and awareness due to the presence of the player and opponent and ball in continuous and uninterrupted interaction of events, and despite the existence of laws that provide for the protection of the player it. be on the fitness of the There are many injuries that occur in general and shoulder joint injuries in particular, so the focus should players as well as good warm-up during the training unit and the muscle strengthening of the muscle ligaments of the shoulder joint as well as the most recent who found a period of relaxation within the training program, in order to reach a good performance And high athletic achievement and good results and can be said that the shoulder joint has a close relationship with the performance of handball players, as the level of performance of the player . Kraaled depends on the safety of this joint. An improvement in the athlete's physical response and the return of the injured joint to normal before the injury occurs.

1.2 Search problem

In our time, sport has received great support and the greatest luck of care and care from the world's people and has thus been able to take a prominent position among other vital activities , which has contributed to its abnormal spread as it has witnessed great development across different countries. The world, and among the sports activities that have become widespread among peoples is handball, as the latter has met with great popularity from the party of children and young people of both nationalities, that the modern handball game is characterized by speed of play and skill in technical and linear performance and this requires The player must be highly fit, which can be developed through sports training represented by the operations of players, players and sports teams through proper planning in all aspects of training and training with the aim of achieving the highest possible level and results in specialized surgery and maintaining it for the duration of a period of time enabling the form of sports for players in timings suitable for competitive seasons in specialized sports. Therefore, training for the

development and development of physical qualities is also through training in motor skills and technical skills, including the skill of shooting in handball, the latter is related to the safety of the shoulder joint, so it is necessary to focus on the good training of this joint and the muscle strengthening of the ligaments of his muscles by doing exercises that have to do with strengthening the ligaments of the muscles of the shoulder joint. This is considered the shoulder joint and through the anatomical composition in the human body and the most complex composition, and due to the importance of this joint in handball players in shooting or passing, which is one of the basic skills in handball, the level of performance and athletic achievement of the handball player depends on the safety of this joint, and what can be said that the shoulder joint for It has a close relationship with the performance of handball players, so his injury directly affects the performance of the players of the ball of the hand and hence completes the problem of research in seeking to know him and provide what the injured player needs in the rehabilitation of the shoulder joint, the researchers chose this problem because of its importance in the field of sports qualification in general and the play of handball in particular.

1.3 Search goals

- 1- Preparing a proposed rehabilitation curriculum for the rehabilitation of the shoulder joint in the injured players in the handball game in the southern region.
- 2- Identify the effect of the rehabilitation curriculum according to the variables under study which are (the motor range of the shoulder joint in terms of tide, bending, rounding, dimensions, internal recycling and circulation outside, maximum strength, carrying strength, degree of m).

1.4 Search duties

- 1- The qualifying curriculum using rehabilitation exercises and some physiotherapy methods has a positive impact on the rehabilitation of the shoulder joint in the injured players in the handball game in the southern region.
2. There is an improvement in the physical and motor variables under study in injured handball players in the southern region .



1.5 Areas of research

1-5-1 Human Field: The 7 players with a shoulder joint injury are injured players in the handball game in the southern region.

1.5.2 The temporal field for the period from 18-9-2021 to 1-3-2022.

1.5.3 Spatial Field: Shifa Center for Medical Rehabilitation and Physiotherapy in Maysan Province, Al-Fassalja Laboratory and Rehabilitation at the Faculty of Physical Education and Sports Sciences - University of Maysan.

Research methodology and field procedures

2.1 Research approach

In order to reach the scientific and objective facts, the appropriate method of research must be chosen, so the researchers used the experimental method in order to suit the nature of the problem to be solved because "the experimental approach is based on experimentation and field testing guided and informed by the means of observation and based on the use of modern scientific tools, equipment and equipment in order to detect and highlight any causal relationship that caused one or more of these variables."¹

2.2 The research community and its sample

In order to reach the exact research results, the researchers conducted a field survey of doctors and surgeons of orthopedics, joints, fractures, physiotherapy and rehabilitation centers in the southern provinces, including (Basra, Maysan, Dhi Qar) as well as clubs in Basra province with a hand ball and participation in the Iraqi League for the excellent and first degree of the sports season (2021-2022) It is (Basra Municipality - Arabian Gulf - Maysan Oil - Tigris - Victory - Rifai) and for the time period from 6/10/2021 to 16/11/2021, the researchers chose the sample in the deliberate way and included the sample on the injured players With the shoulder joint, the number of athletes injured in this period (7) players table no. 1 builds homogeneity of the members of the research sample.

⁽¹⁾ Marwan Abdul Majid Ibrahim: Methods and curricula of scientific research in physical and sports education1, Amman, International Scientific Publishing and Distribution House, 2006, p. 137.



Table (1) shows the homogeneity of the members of the research sample in morphological measurements and variables under study

Variables	Unit of measurement	Arithmetic medium	Standard deviation	Variation coefficient
Length	poison	179.565	5.275	2.896
Weight	Kg	75.718	3.966	5.291
lifetime	year	24.857	1.573	7.196
Training age	year	9.385	1.112	25.950
Where the injury is.	Shoulder joint			
Degree injury	Severe third degree			

This means that the sample is well distributed and homogenized because the value of the variation factor was limited to (1,350-28.82%) of the research sample, which is acceptable" as the value of the variation factor as it approaches (1%) is high and if it exceeds (30%) it means that the sample is heterogeneous²."

2.3 Methods of collecting information, devices and tools used in research

* Arab and foreign references and sources. * (Internet) * Information form for injured players * Questionnaire form opinions of experts and specialists on the appropriateness of variables * Questionnaire form opinions experts and specialists on the proposed qualifying curriculum * laptop * camera photography graphic * Rastameter to measure height * medical balance to measure weight * measuring tape (shoulder circumference)* laser discs * Gonimetry device to measure the normal motor range of the body's joints.* German-made electromuscular stimulation physiotherapy device * Iron hall with all its requirements of weights and weights varied

2.4 Steps to conduct the search

2.4.1 Identify the tests in question:

2.4.1.1 Pain test¹³:

The authors designed a questionnaire form to the degree of loyalty, which included a number of questions presented to the infected person in tribal, intermediate and remote tests, and the form was presented to a group of experts (***) who confirmed its validity.

⁽²⁾ Wadih Yassin Mohammed Al-Tikriti, Hassan Mohammed Abdul Obaidi: Statistical applications and computer uses in sports education research, Mosul, Book House for Printing and Publishing, 1999, p. 160.

(1) Nizar al-Talib, Mahmoud al-Samarrai; Principles of statistics and physical and sports tests Mosul, University Press, 1981, p. 139.

(2) Wadih Yassin-Yassin Taha; Source mentioned above P. 182-185.

(*) Names of experts and specialists hired by the researcher Wen.



Purpose of testing: Measuring the muscle strength of the neck.

2-4-1-2 Motor range measurement test: 1- Folding measurement test forward. 2- The back tide measurement test. 3- Test the measurement of rotation inward. 4- The recycling measurement test for the outside

2.4.1.3 Test to measure the strength of muscles on the shoulder strap2:

Spring Scale is used to measure the strength of muscles operating on the shoulder strap.

2.4.1.4 Test to measure the motor range of the shoulder strap: 0⁴

2.5 Reconnaissance experiment:

The researchers conducted the reconnaissance experiment with the help of the team ^(5*) on a sample of players with shoulder injuries outside the original sample on Saturday, 10 November 2021, numbering (2) injured.

2.6 Field trial (main experiment):

2.6.1 Tribal test:

Tribal tests were conducted on the 7 members of the search sample with shoulder joint injury by the assistant team starting on Sunday, 13 November 2021, ending Wednesday, January 8, 2022 at the Medical Healing Center for Injured Rehabilitation in Maysan Province, and the tests were conducted in the following sequence: 1- Measuring pain score, 2- test measuring the strength of the muscles on the neck and shoulder strap. 3- Flexibility measurement test (motor range) of muscles working on the neck and shoulder strap. Researchers have installed all the conditions for the tests in terms of location and time so that the same conditions can be created when conducting intermediate and remote tests.

2.6.2 Qualifying curriculum:

The researchers prepared a proposed rehabilitation curriculum using rehabilitation exercises and some methods of physical therapy and included electrical stimulation of the affected area of muscles working on the shoulder. The qualifying curriculum included a set of constant and gradually moving exercises so as not to affect the movement of the joint significantly and thus lead

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 - A.M.D/ Ahmed Mahdi Shalsh- Injuries and rehabilitation/ Misan University – Faculty of Physical Education and Sports Sciences.

(1) Marwan Abdel Majid Ibrahim; Tests and measurement in sports education1 (Jordan, Arab Thought House for Printing and Publishing, 1999), p. 86.



to an increase in the pain aimed at rehabilitating the muscles of the shoulder joint and the vocabulary of the qualifying curriculum was applied to the members of the research sample on Sunday, 13/11/2022, which was the duration of the curriculum 8 Weeks and 3 units per week distributed over the days (Sunday, Tuesday, Thursday) the duration of the treatment unit between (20-30) minutes and according to the duration of treatment including 5 minutes protection, the researchers supervised and field-to-field exercises by the research sample as all the members of the sample.

2.6.3 Remote test:

The remote test was conducted on the members of the search sample and with the help of the team, and the test was conducted in the same circumstances and the same sequence as the tribal test, where the remote tests ended on Wednesday, January 9, 2022.

2.7 Statistical means:

The researchers used the SPSS statistical bag system version (23).

3- Presenting, analysing and discussing the results

1.3 Presentation and analysis of tribal, middle and remote innovations in studies in the men's category

Table (2) Between the computational circles and the standard deviations of variables under consideration in the three tests (tribal, remote) of the research sample

Variables	Tribal test		Remote test	
	Q	±	Q	±
Degree of pain	3.77	0.81	0.82	0.77
Bend forward	117.30	18.32	162.87	14.30
Tide back	20.83	5.43	52.62	6.00
Deportation	109.87	9.81	180.14	7.79
Rounding	18.57	5.61	62.33	8.28
Turning in	107.73	9.42	161.72	7.14
Recycling out	129.64	11.91	172.11	7.87
Maximum power	6.11	0.989	9.574	0.899
Power table	23.00	3.43	31.12	3.58

Table (2) shows the computational circles and the random deviations of tribal and remote tests of the variables under study, as the table showed that the value of the computational medium in the tribal test of the variable (pain degree) was 3.77) With a standard deviation (0.81), while the value of the arithmetic medium in the distance test of the variable itself was (0.82) and a standard



deviation (0.77). As for the variable (folding forward), the value of the computational medium and the tribal test (117). 30) and with a standard deviation (18. 32), either in the distance test (162.87) and by standard deviation (14. 30) . The computational medium value of the "back tide" variable for the tribal test was 20. 83) and with a standard deviation (5. 43), while the value of the computational medium in the remote test and for the same variable (52. 62) with a standard deviation of (6. 00) . The variable (dimensions) was the value of the calculation medium of the tribal test (109.87) and a standard deviation (9). 81), the computational medium of the remote test (18. 014) with a standard deviation (7.79). 57) With a standard deviation (5.61), the computational medium of the remote test (62. 33) And with a deviation (8.28). 73) and drifting (9. 42) While the computational medium of the remote test and the same variable (161. 72) and drifting (7.14). The computational medium was for the variable (rotation abroad) and for the tribal test (129. 64) and drifting (11. 91), while the computational medium was for the remote test and for the variable itself (172. 11) and drifting (7. 87. The computational medium of the maximum force variable and the tribal test (6. 11) with a deviation (0.989), while the computational medium of the remote test and the center itself (9.574) and deviation (0.899). 00) And perversion (3. 43), while the computational medium was for the remote test and for the variable itself (31. 12) And perversion (3. 58) .

3.2 To find out which tests are the best, the morale of the differences between the computational circles of all tests has been treated in a less morally different way (L.S.D.

Table (3) Shows computational circles, differences, calculated L.S.D. value and indication of differences between the three (tribal-remote) search tests in all search variables

Variables	Totals	Computational circles	Teams of computational circles	L.S.D. calculated value*	Significance of differences
Degree of pain	Tribal- Al-Adhi	3.72 - 0.83	3.04*	0.496	Moral
Bend forward	Tribal- Al-Adhi	112. 43 - 165.83	54.40*	10.200	Moral
Tide back	Tribal- Al-Adhi	21.64 - 51.82	30.20*	3.368	Moral
Joint dimensions	Tribal- Al-Adhi	112.86 - 174.43	60.60*	4.767	Moral
Detailed rounding	Tribal- Al-Adhi	17.67 - 62.84	46.20*	3.269	Moral
Rotate inward	Tribal- Al-Adhi	107. 79 - 167.63	59.80*	6.773	Moral
Rotate out	Tribal- Al-Adhi	132.0 - 171. 11	39.0*	6.108	Moral
Extreme powers	Tribal- Al-Adhi	5.77 - 9.54	3.84*	0.508	Moral
Power table	Tribal- Al-Adhi	22.22 - 30.40	8.28*	1.865	Moral



The lowest moral difference (L.S.D) value appeared at a semantic level (0.05) (0.496) and after comparing the values of differences between the computational circles of each test individually with the value of the lowest moral difference (L) The researchers found that the value of the difference between the computational medium of the tribal test with the computational medium of the remote test was (3.04), which is greater than the value (L.S.D) and this means that the difference is moral either the choice of folding Forward, the lowest moral difference value (L.S.D) appeared at a semantic level (0.05) (10.200) and after comparing the difference values between the computational circles of each test separately with the value of the lowest moral difference (L.S.D) in the forward bend test, the difference between the computational medium of the tribal test with the computational medium of the remote test was (54.40), which is greater than the value (L.S.D.)) This means that the difference is moral. Looking at the table, we find that the tests have achieved the highest moral difference and the researchers acknowledge that the rehabilitation exercises have an impact on the removal of pain and thus increase the flexibility of the joint as a result of daily exercise. Table 3 shows that the value of the lowest moral difference at the indicative level (0.05) is (3). 368), comparing the values of differences between the computational circles of each test separately with the value of the lowest moral difference (L.S.D), the difference between the computational medium of the tribal test with the computational medium of the remote test is (30.20) and is greater than the value (L.S.D). 368) After comparing the values of differences between the computational circles of each test separately with the value of the lowest moral difference (L.S.D). 84) It is greater than the value (L.S.D) which means that the difference is moral. 269) After comparing the value of differences between the computational circles of each test separately with the value of the lowest moral difference (L.S.D). The computational medium of the tribal test with the computational medium of the remote test was (46.20) which is greater than the value (L.S.D) which means that the difference is moral. The value of the lowest moral difference (L.S.D) appeared at the indicative level (0.05) is (6.773) and after comparing the values of differences between the calculation circles of each test separately with the value of the lowest moral difference (L.S.D). With the value of the computational medium of the remote test, it was (59.80), which is greater than the value (L.S.D), which means that the difference is moral. 8) After comparing the value of differences between the computational circles of each test separately with the



value of the lowest moral difference (L.S.D), the value of the difference between the value of the computational medium of the tribal test with the value of the computational medium of the remote test was (39.0) which is greater than the value (L.S.D) which means that the difference is moral. The lowest moral difference (L.S.D) was shown at a semantic level (0.05) (0.508) and after comparing the value of differences between the computational circles of each test individually with the lowest moral difference value (L.S.D). The difference between the value of the calculation medium of the tribal test with the value of the computational medium of the remote test was (3.84) and is greater than the value (L.S.D), which means that the difference is moral. The value of the lowest moral difference (L.S.D) appeared at a semantic level (0.05) (1.865) and after comparing the value of differences between the computational circles of each test separately with the value of the lowest moral difference (L.S.D), the value of the difference between the value of the computational medium of the tribal test with the value of the computational medium of the remote test (8.28) was greater than the value (L.S.D. This means that the difference is moral. The average average value of the test with the computational medium of the remote test was (7.40), which is greater than the value (L.S.D), which means that the difference is moral.

2-3 Discussion of results

From what was found in the two braids (2-3) shows the existence of moral differences between the two tests (tribal-remote) and the variables of research. The researchers attribute that the reason for these differences is the variable degree of pain and the impact of the qualifying curriculum used as this program contributed to the increase of the chance of recovery and rehabilitation within a short period of time where this qualifying curriculum developed contained a set of Exercises by using fixed and moving muscle constriction exercises, as the performance of these mobile exercises is characterized by the use of the principle of appropriate muscle lengthening (motor) which researchers believe has contributed to the direct impact of the development of this Strength in the injured sample.



- Discussion of the results of the pain test

That the moral differences that appeared in the pain degree test indicate that there is an effect of therapeutic physical exercise was on all kinds of injuries and that the qualifying method prepared was effective and beneficial, especially the use of some means of physical therapy and this contributed to reducing the level of pain in the injured players and thus helping to perform some exercises prepared within the rehabilitation curriculum, And because the decrease in the degree of pain in the tribal test was the result of the use of physiotherapy methods in the first reasons that preceded the application of the rehabilitation curriculum . and that this development that occurred in the variable degree of pain did not come through the tandem but came as a result of the nature of the proposed curriculum where it included A range of therapeutic exercises as well as rest periods that were consistent with the rehabilitation units of the qualifying curriculum with each other. As the rest periods between exercises as confirmed (Thamer Al Hasso) that muscles need a period of time from a certain rest and this is a physical and natural reaction to the need of muscles to feed after the effort exerted⁶. The researchers also used the rule of gradient in training pregnancy from easy to difficult and had a clear effect in not repeating the occurrence of injuries or increased pain. (The gradient rule is a protection against internal disorders of the joints and muscle tendons, in other words the dimensions of rupture and muscle spasm⁷.

Discuss the results of the selection of the fold forward

The researchers showed through a review of the results that the development between tribal test and remote test led to a marked development in the forward bending test attributed by the researchers to the use of therapeutic physical exercises contributed to the activation of muscles, tendons and ligaments after It was noted that there is a lack of movement and use as the rehabilitation units contain different types of methods of development of the motor range before the exercises of constant and mobile flexibility and the work of these exercises slowly and with the widest mobility helped to obtain these results as (obtaining sufficient flexibility for muscles, tendons and ligaments of a particular joint or joint group in a particular movement or effectiveness depends on the amount

⁶Thamer Saeed Al-Hasso: Therapeutic exercises Baghdad University, Baghdad University Press, 1978, p. 19-20.

⁷ Qasim Mandlawi, Mahmoud al-Shati: Sports Training and Records, Mosul University, Book House for Printing and Publishing, 1987, p. 123.



and intensity of exercises that lead to a wide range of movement as well as on The degree of flexibility gained by the individual⁸.

Discuss the results of the back tide test

By reviewing the results, the researchers found that the after-test is better than the tribal test, due to the fact that the injured person in the early stages of injury needs enough time to overcome the difficult stage, so the researchers attribute this to moral change. To the effectiveness of therapeutic exercises in eliminating motor dilation in the affected area because therapeutic exercises increase the body's flexibility and activity and increase neuromuscular compatibility^{9,10}.

Discussion of rounding test results

Through the tables it is clear that the best tests are the remote test and the researchers attribute this development to the fact that the method prepared led to the development of the motor range of the area of the shoulder joint and satisfactorily, as the results showed moral differences in all the variables of the study and in favor of the remote test. The researchers believe that the result of these differences is due to the reason that the method prepared was able to eliminate the movement reduction in the area of the palm as a result of the injury and all the directions of movement.¹¹

Discuss the results of the inward rotation test

The researchers found through the results obtained that the rehabilitation method has achieved moral differences between the tribal and remote tests, which the researchers attribute to the fact that the rehabilitation exercises used in the rehabilitation curriculum as well as the use of some physiotherapy methods had an effective effect in this development. The situation in motor and flexible tides has played an effective role in this development and how it is developed and developed as well as the comfort of the curriculum has had a great impact on relieving pain as well as eliminating inflammation when (rest

⁽⁸⁾ Wadih Yassin Al-Tikriti, Yasin Taha Al-Hajjar: Physical preparation for women Mosul University, Book House for Printing and Publishing, 1986, p. 118.

⁽⁹⁾ Ahmed theصBaحGod's compensation: Sports health and physiotherapy Beirut, Sidon, Modern Library, 1973, p. 199-122.

⁽¹⁰⁾ Fouad Al-Samarrai, Hashim al-Samarrai: Sports injuries and physiotherapy I1, Jordan, Amman, Middle East Printing Company, 1988, p. 220-222.

⁽¹¹⁾ Booher Hames, Cary A : Athletic Injury Assesmnt, second edition, by times mirror mosby college publishing USA, 1981, p.122 .



and reducing effort the blood and lymph are ¹²performing inflammatory fluid respite). It reduced pain and increased the amount of blood entering the area and thus reduced inflammation by increasing the amount of egg blood cells.¹³¹⁴¹⁵

Discussion of the external rotation variable test

Through the results obtained, we find that there is a remarkable progression and in favor of the further tests and the researchers attribute this development to the nature of the rehabilitation curriculum and the bases that included it developed according to the exact scientific foundations, as the researcher took into account the gradualness of stress as well as repetition as well as for the comfort that governs it well. It has had an important role in preventing the recurrence of the injury again in addition to the dimensions of the boredom factor and the use of some exercises that contain excitement and other psychological factors and that each increase in the pregnancy of training due to severity and size is offset by an increase in the practical capacity of organs to ensure their growth and development¹⁶.

Discussion of maximum strength variable results

Through its findings regarding the selection of the maximum strength variable, it is clear that there are moral differences between the two tests (tribal-remote) and the researchers attribute this development in the remote hiding to the use of the curriculum in its vocabulary and regularity in its application and permanent supervision by researchers. It has also had a significant impact on this development that the use of therapeutic physical exercises and the continued development and growth of strength in exchange for low pain grades means that the vocabulary of the curriculum was consistent with each other from the use of comfort and physical exercises and that the use of constant exercises, moving exercises and mixed exercises had a clear effect on the development of strength as the strength increases by increasing the use of physical exercises and decreases in the case of non-movement of the part and

⁽¹²⁾ Juma Mohammed Awad: Small and frequent injuries to football players The plane, master's thesis, Baghdad University, faculty of sports education, 1988 · P. 45.

⁽¹³⁾ Mercer : Orthopaedics Surgery , 5th edition, Arnold publishing Inc . USA . 1984 . p. 1139 .

⁽¹⁴⁾ prentice . W. E. : Therapeutie Modalities In sport medicine . Times Mirror . Mosby college publishing , USA 1986 . p.80-81 .

⁽¹⁵⁾ Peterson . L. Renstrom . p. : sports Injuries Their preyention and Treatment , by kyodoshing coong printing Industries pte. LTd, Singapore, 1990. p.153 .

⁽¹⁶⁾ Abdul Ali Nassif, Qassim Hassan Hussein: Principles of sports training science Baghdad, Higher Education Press, 1988, p. 122.



this is consistent with (the development of moral strength is done by choosing fixed and mobile exercises Performed during the training curriculum to reach better results to develop the status of strength¹⁷.

Discussion of the results of a variable of strength

Tables (2,3) of the results in a variable test (strength table) show that there are moral differences in the test (tribal and remote) and moral and in favor of the remote test . The researchers attribute that the exercises used in the curriculum are due to the high vocabulary of the qualifying method prepared by the researchers according to the correct scientific foundations and that the increase in muscle strength is accompanied by an increase in the strength table ((muscle strength is an important characteristic and the resulting increase in muscle endurance (extended strength) which depends mainly on the strength and safety of cooperation between them and the nervous system))¹⁸ . The development of maximum strength has had an impact on improving the power table, which is consistent with the research (Wakinsk and Dchlorm), which confirms that stretching exercises can develop muscle strength and vice versa¹⁹.

Conclusions and Recommendations

4.1 Conclusions: -

- 1- The rehabilitation program used increased the muscle strength of the muscles working on the shoulder joint and therefore led to the speed of recovery of the injured players in the shortest possible time .
- 2- There are statistically significant differences between tribal and remote tests and this is shown by the results tests for the study variables which indicates the success of the qualifying method used.
- 3- The pain score indicator improved rapidly and clearly after the use of rehabilitation exercises and physiotherapy methods within the rehabilitation curriculum.
- 4- The development and apparent improvement in the motor lengths of the shoulder joint is linked to the disappearance of pain, so the positive effect of the

(¹⁷) Jeffry . E. Falkel : Methods of training in sport physical therapy Bernard . T. ditor pupishing Churchill living stonc , USA , Newyork , 1986 . p. 76 .

(¹⁸) Mohammed Hassan Allawi, Mohammed Nasreddine: Motor Performance Tests, Cairo, Arab Thought House, 1982, p. 20.

(¹⁹) Fadhil Sultan Sherida: Member Jobs and Sports Training, Saudi Arabia, Saudi Sports Students Federation, I1, Riyadh, Crescent Presses, 1990, p. 155.



rehabilitation approach in reducing or removing pain in the first two weeks has led to a clear improvement in the motor range.

5- The results showed that the development of motor range, maximum strength and endurance was more pronounced than the motor development in the research sample and the reason that muscle construction as a result of the use of the approach that was geared towards muscular development and the extent of movement.

4.2 Recommendations: -

1- Use the proposed rehabilitation program to rehabilitate injuries suffered by players in the rest of the body.

2- The need to use the scientific foundations, especially physical and physical in the design of the rehabilitation program in order to determine the level of severity and progression of the training pregnancy.

3- Trainers and therapists working in the field of injuries and rehabilitation should take care of the brown side, especially warm-up before starting the training unit.

4- The use of fixed and mobile exercises in the preparation of rehabilitation programs because of their role and scientific importance in improving the strength and size of muscles to reach normal and at an appropriate standard period.

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Rehabilitation Unit Form

Exercise Name	Exercise Time	Number of repetitions	Rest of repetitions	Number of totals	Rest of repetitions	Total Exercise Time
Rotate the arm counter clockwise	30 Second	3	5 Second	2	90 Second	380 Second
Rotate the arm clockwise	30 Second	3	5Second	2	90 Second	380 Second
Rounding the affected arm	30 Second	3	5 Second	2	90 Second	380 Second
Distract the affected arm	30 Second	3	5Second	2	90 Second	380 Second
Full rotation of the affected arm	30 Second	3	5 Second	2	90 Second	380 Second



EMPLOY ANT COLONY ALGORITHM TO SOLVE RELIABILITY OPTIMIZATION PROBLEM FOR AN COMPLEX NETWORK

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Abstract

In this article, the reliability of a complex network has been calculated as a complex system using limited paths. The reliability of this system has been assigned to explore alternate ways assignment of reliability values on reducing the total expense of the process. Among the initial findings were:

- (i) To quantify Comprehensive device costs, three cost functions were used: The paradigm of exponential behavior, the exponential behavior model and finally, there's the logarithm model.
- (ii) Solving the challenges of maximizing the dynamic system's reliability, the reliability of each part of the system was determined using the ant colony optimization (ACO) algorithm.

Keywords: Reliability allocation, Reliability optimization, the Ant colony algorithm.

1. Introduction

In the present article, we watched the installed complex system's efficiency. By using limited paths across relation matrices, this system was found to be efficient. (To create minimum paths, remove nodes) as well as Boolean algebra [1-3]. The goal of evaluating to be learn about the protection of the sophisticated unit that



has been built. Despite the networks' foundations, the optimum distribution dependability is treated as a mathematical task in this research [2, 4-7]. Each and every dynamic component Each device offers a unique set of features. dependability standards that are optimized and reliant on its importance. The goal is to improve device reliability while lowering total expenses. In order to achieve the highest level of efficiency in general, depending on the position of each element in the System, which varies between the component and the component, such components may require large allocations[6, 8]. Engineers working on improving mechanical and electrical systems encounter a variety of challenges. The focus of this work is on complicated structure allocation and improvement, in addition to the cost system , which can be assessed In terms of size , and proportion, or other criteria[8-10]. The dependability of this component is based on two key needs. To begin, the model should be used to determine the input variable reliability. You will change the parameters of the suggested cost parameter. Engineers may now upgrade their duties for each machine and prepare for the utmost Each device's productivity, second, the model's analytical performance should be balanced of the input system. This can be a huge difficulty in simple structures, but it can be In complex systems, this is a significant issue [7, 11]. The expenses are calculated using the ant colony optimization algorithm, which uses complex systems to solve optimization problems[12-15]. The algorithm uses three cost functions " Modeling activity exponentially with the viability factor, The exponential behavior paradigm and a logarithmic model".

2. Optimization of complex system

Consider a system of interconnected components. [1-3, 16]. We are reliant on statements.: $0 \leq R_i \leq 1$ dependability of a component i ; $C_i(R_i)$ the Individual Costs, Components i , $C (R_1, \dots, R_n) = \sum_{i=1}^n a_i c_i (R_i)$ Parts' Prices $a_i > 0$; The effectiveness of the system is measured in R_s , the device's reliability objective is denoted by the letter RG . Each component of the scheme has a distinct goal, and there are several options. Device modules have their own set of features. varying levels of assurance in the same characteristics. The objective is to ensure that any or all gadget components are trustworthy. The Q issue is a non-linear threshold with an evaluable cost and function [15-20]. Seek out

$$\text{Minimize } C(R_1, \dots, R_n) = \sum_{i=1}^n a_i C_i(R_i), \quad a_i > 0, \quad (1)$$



within the terms of

$$R_G \leq R_S$$

$$0 \leq R_i \leq 1, \text{ such } i = 1, \dots, n.$$

Let's pretend the cost function is appropriate.. $C_i(R_i)$ satisfies those requirements [12]. The favorable, unique role is being improved.

$$\left[\Rightarrow \frac{dC_i}{dR_i} \geq 0 \right].$$

The goal of the prior strategy was to achieve a cost basis that included everything [2, 4]. The stability limit of the system has been lowered. However It's in the vicinity the scope of R_G .

3. Application to complex network

All components in the complex network illustrated have the same as in fig. (1) primary trust level of 90% at the specified periods [19, 21-24]. The system's aim for stability is 90 percent at any given time. The dependability polynomial for the proposed technique was found using the approach to minimal path [14, 25].

$$\begin{aligned} R_S = & R_1 R_9 R_{10} + R_2 R_8 R_{10} + R_2 R_5 R_7 R_{10} + R_3 R_4 R_7 R_{10} + R_1 R_6 R_8 R_{10} + R_2 R_6 R_9 R_{10} \\ & - R_1 R_2 R_6 \\ & R_8 R_{10} - R_1 R_2 R_6 R_9 R_{10} + R_1 R_5 R_6 R_7 R_{10} - R_1 R_2 R_8 R_9 R_{10} + R_3 R_4 R_5 R_8 R_{10} - R_2 R_5 \\ & R_7 R_8 \\ & R_{10} - R_1 R_6 R_8 R_9 R_{10} - R_2 R_6 R_8 R_9 R_{10} - R_1 R_2 R_5 R_6 R_7 R_{10} - R_2 R_3 R_4 R_5 R_7 R_{10} - R_2 R_3 \\ & R_4 \\ & R_5 R_8 R_{10} - R_1 R_2 R_5 R_7 R_9 R_{10} - R_1 R_3 R_4 R_7 R_9 R_{10} - R_2 R_3 R_4 R_7 R_8 R_{10} + 2R_1 R_2 R_6 \\ & R_8 R_9 \\ & R_{10} - R_1 R_5 R_6 R_7 R_8 R_{10} + R_3 R_4 R_5 R_6 R_9 R_{10} - R_3 R_4 R_5 R_7 R_8 R_{10} - R_1 R_5 R_6 R_7 R_9 R_{10} - \\ & R_2 R_5 R_6 R_7 R_9 R_{10} - R_1 R_3 R_4 R_5 R_6 R_7 R_{10} - R_1 R_3 R_4 R_5 R_6 R_8 R_{10} - R_1 R_3 R_4 R_5 R_6 R_9 \\ & R_{10} + \\ & R_1 R_2 R_5 R_6 R_7 R_8 R_{10} - R_1 R_3 R_4 R_6 R_7 R_8 R_{10} - R_2 R_3 R_4 R_5 R_6 R_9 R_{10} + 2R_2 R_3 R_4 R_5 R_7 \\ & R_8 \\ & R_{10} + 2R_1 R_2 R_5 R_6 R_7 R_9 R_{10} - R_1 R_3 R_4 R_5 R_8 R_9 R_{10} - R_2 R_3 R_4 R_6 R_7 R_9 R_{10} + R_1 R_2 \\ & R_5 R_7 \end{aligned}$$

$$\begin{aligned}
 &R_8 R_9 R_{10} - R_3 R_4 R_5 R_6 R_7 R_9 R_{10} - R_3 R_4 R_5 R_6 R_8 R_9 R_{10} + R_1 R_5 R_6 R_7 R_8 R_9 R_{10} + R_2 \\
 &R_5 \\
 &R_6 R_7 R_8 R_9 R_{10} + R_1 R_2 R_3 R_4 R_5 R_6 R_7 R_{10} + R_1 R_2 R_3 R_4 R_5 R_6 R_8 R_{10} + R_1 R_2 R_3 R_4 R_5 \\
 &R_6 \\
 &R_9 R_{10} + R_1 R_2 R_3 R_4 R_5 R_7 R_9 R_{10} + R_1 R_2 R_3 R_4 R_6 R_7 R_8 R_{10} + R_1 R_2 R_3 R_4 R_5 R_8 R_9 \\
 &R_{10} + \\
 &R_1 R_2 R_3 R_4 R_6 R_7 R_9 R_{10} + R_1 R_2 R_3 R_4 R_7 R_8 R_9 R_{10} + 2 R_1 R_3 R_4 R_5 R_6 R_7 R_8 R_{10} + \\
 &2 R_1 R_3 R_4 R_5 R_6 R_7 R_9 R_{10} + 2 R_1 R_3 R_4 R_5 R_6 R_8 R_9 R_{10} + 2 R_2 R_3 R_4 R_5 R_6 R_7 R_9 R_{10} + \\
 &R_1 R_3 R_4 R_5 R_7 R_8 R_9 R_{10} + R_2 R_3 R_4 R_5 R_6 R_8 R_9 R_{10} - 2 R_1 R_2 R_5 R_6 R_7 R_8 R_9 R_{10} + \\
 &R_1 R_3 R_4 R_6 R_7 R_8 R_9 R_{10} + R_2 R_3 R_4 R_6 R_7 R_8 R_9 R_{10} + R_3 R_4 R_5 R_6 R_7 R_8 R_9 R_{10} - \\
 &2 R_1 R_2 R_3 R_4 R_5 R_6 R_7 R_8 R_{10} - 3 R_1 R_2 R_3 R_4 R_5 R_6 R_7 R_9 R_{10} - 2 R_1 R_2 R_3 R_4 R_5 R_6 R_8 \\
 &R_9 \\
 &R_{10} - 2 R_1 R_2 R_3 R_4 R_5 R_7 R_8 R_9 R_{10} - 2 R_1 R_2 R_3 R_4 R_6 R_7 R_8 R_9 R_{10} - 3 R_1 R_3 R_4 R_5 R_6 \\
 &R_7 R_8 \\
 &R_9 R_{10} - 2 R_2 R_3 R_4 R_5 R_6 R_7 R_8 R_9 R_{10} + 4 R_1 R_2 R_3 R_4 R_5 R_6 R_7 R_8 R_9 R_{10}
 \end{aligned}$$

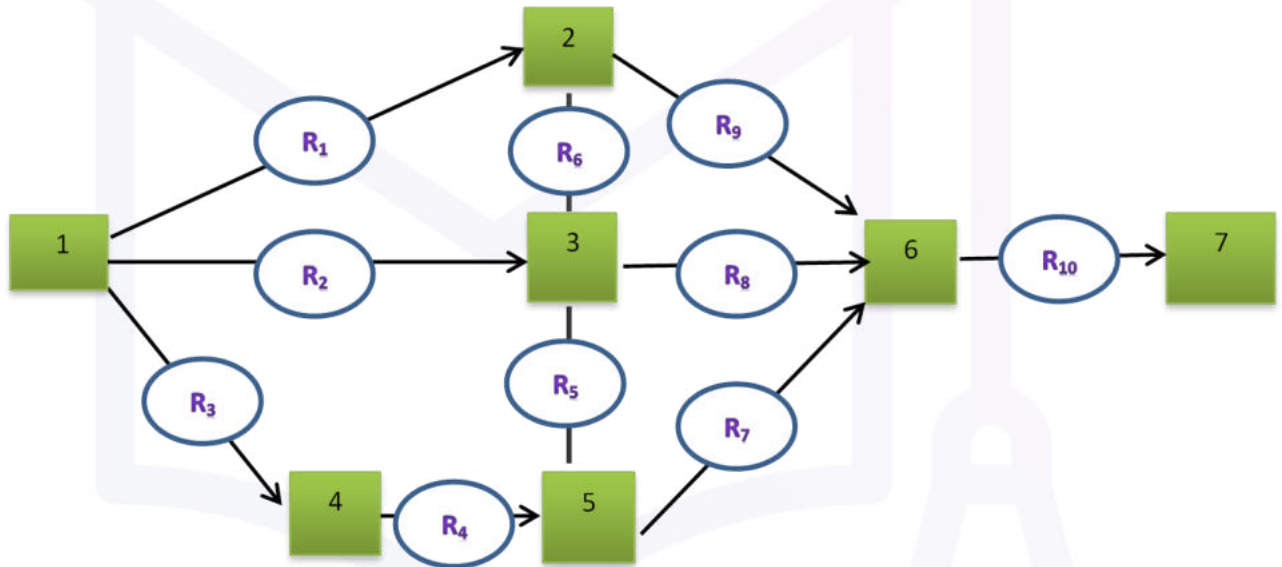


Figure 1 : Complex Network.

4. Three cost models for reliability

4.1 Model of exponential behavior with a feasibility parameter

Suppose $0 < f_i < 1$ be the feasibility factor, $R_{i,min}$ be minimum reliability and $R_{i,max}$ be maximum reliability [26-30]]. Exponential behavior is another important cost function.



$$C_i(R_i) = \exp\left[(1 - f_i) \frac{R_i - R_{i,min}}{R_{i,max} - R_i}\right], R_{i,min} \leq R_i \leq R_{i,max}, i = 1, 2, 3, \dots, n. \tag{4.1}$$

The issue of optimization then:

Minimize $C(R_1, \dots, R_n) = \sum_{i=1}^n a_i \exp\left[(1 - f_i) \frac{R_i - R_{i,min}}{R_{i,max} - R_i}\right], i = 1, 2, \dots, n.$

Subject to:

$$R_s \geq R_G$$

$$R_{i,min} \leq R_i < R_{i,max}, i = 1, \dots, n.$$

Table 1: The Optimal Reliability Allocation (ACO).

Components	R_i	C_i
R_1	0.88761	51.88
R_2	0.88761	51.88
R_3	0.81776	9.4278
R_4	0.87665	34.931
R_5	0.81568	9.1406
R_6	0.61178	2.1988
R_7	0.84618	15.65
R_8	0.75824	4.7977
R_9	0.87665	34.931
R_{10}	0.9133	193.78
R_s	0.90166	204.31

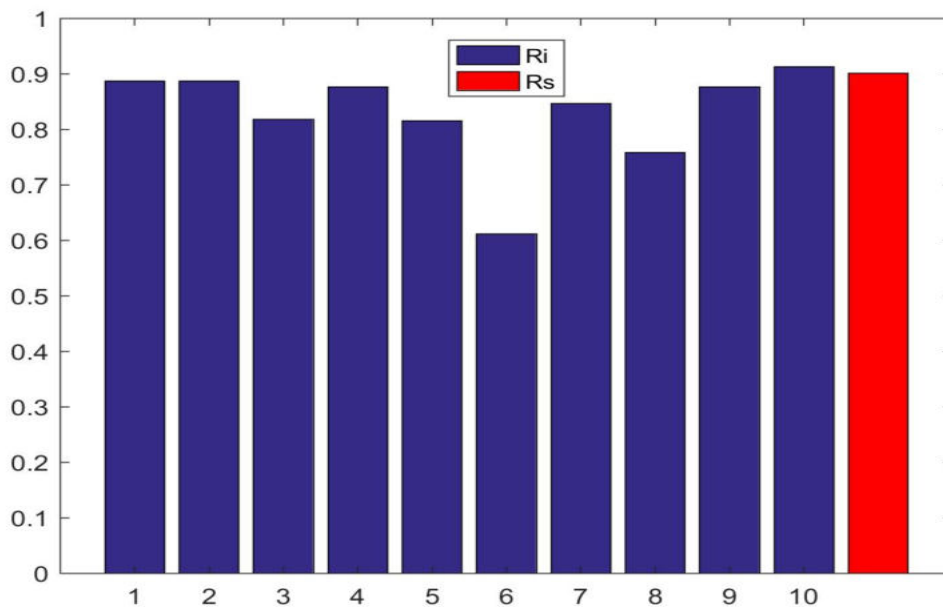


Figure 2: Allocating reliability using exponential behavior model with feasibility factor model for complex network.

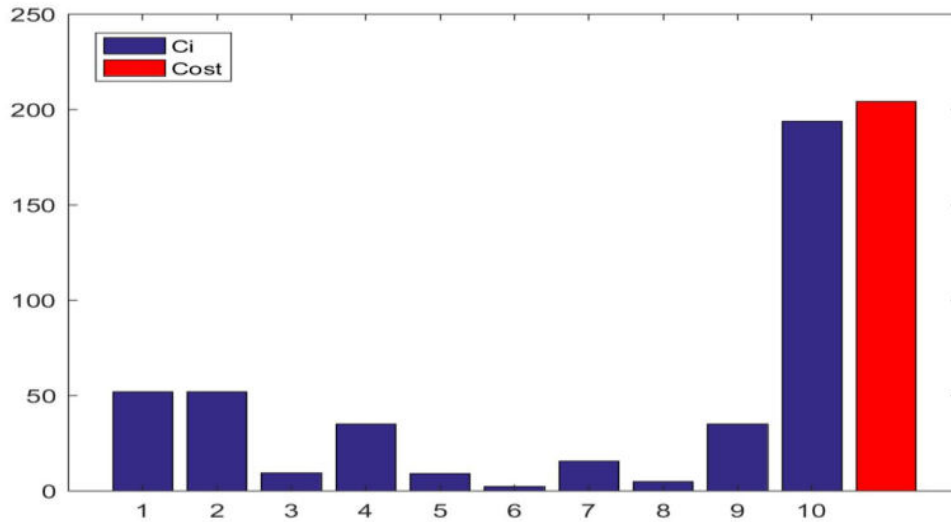


Figure 3 : A cost function for a model-viable exponential behavior process.

4.2 Exponential behavior model

Suppose $0 \leq R_i$, and $R_i \leq 1$ and, Constants a_i and b_i , where $i = 1, \dots, n$. The exponential procedure is the most important cost function. Suggested it in the following format:

$$C_i(R_i) = a_i e^{\left(\frac{b_i}{1-R_i}\right)}, a_i > 0, b_i > 0, \text{ where } i = 1, \dots, n. \tag{4.2}$$

The issue of optimization then:

$$\text{Minimize } C(R_1, \dots, R_n) = \sum_{i=1}^n a_i e^{\left(\frac{b_i}{1-R_i}\right)}, \text{ where } i = 1, \dots, n.$$

Subject to:

$$R_G \leq R_S$$

$$0 \leq R_i \leq 1, \text{ where } i = 1, \dots, n.$$

Table 2: The Optimal Reliability Allocation (ACO).

Components	Ri	Ci
R ₁	0.88761	85.535
R ₂	0.88761	85.535
R ₃	0.81776	15.544
R ₄	0.87665	57.591
R ₅	0.81568	15.07
R ₆	0.61178	3.6253
R ₇	0.84618	25.803
R ₈	0.75824	7.9101
R ₉	0.88761	85.535
R ₁₀	0.9133	319.49
R _S	0.90222	350.82

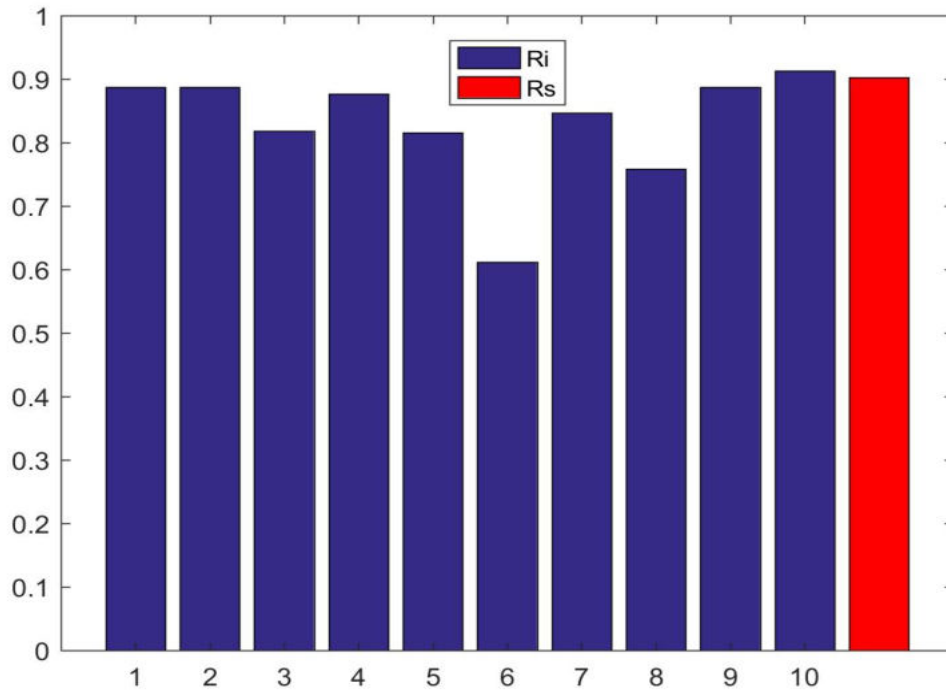


Figure 4: Allocating reliability for complex network by the exponential behavior model..

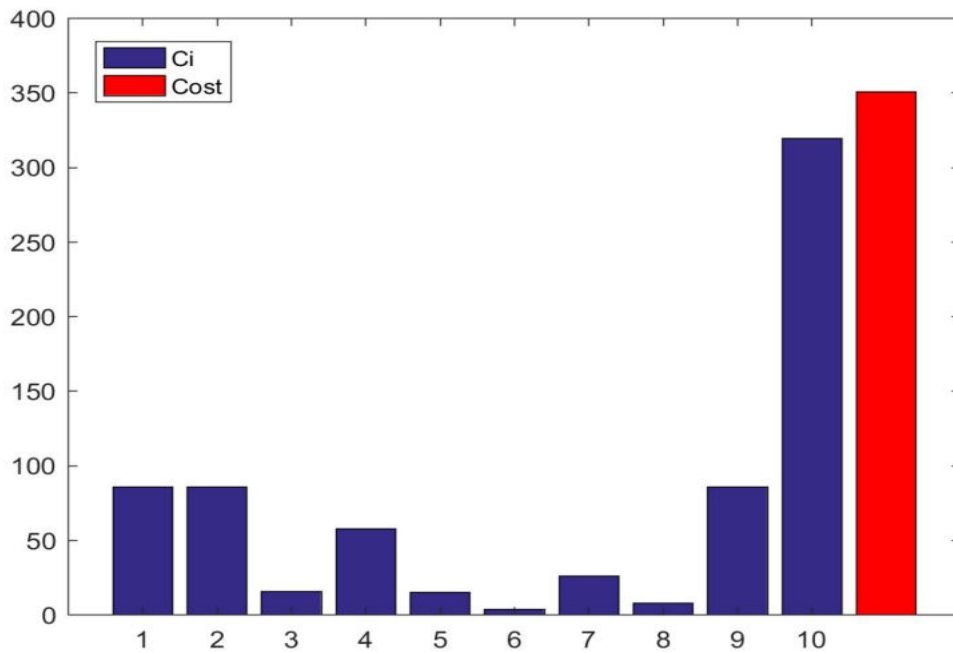


Figure 5: A cost function of a complicated network is determined using the exponential behavior model.



4.3 Logarithmic model

Let $0 \leq R_i$, and $R_i \leq 1$ and, Constants a_i where $i = 1, \dots, n$. Let's suppose it in the form

$$C_i(R_i) = a_i \ln\left(\frac{1}{1-R_i}\right), a_i > 0, i = 1, \dots, n \tag{4.3}$$

The issue of optimization then.:

Minimize $C(R_1, \dots, R_n) = \sum_{i=1}^n a_i \ln\left(\frac{1}{1-R_i}\right)$, where $i = 1, \dots, n$.

Subject to:

$$R_G \leq R_S$$

$$0 \leq R_i \leq 1, \text{ where } i = 1, \dots, n.$$

Table 3: Table for ACO-Based Optimal Reliability Allocation

Components	R_i	C_i
R_1	0.94267	2.8589
R_2	0.994	5.116
R_3	0.54326	0.78364
R_4	0.61	0.94161
R_5	0.56	0.82098
R_6	0.86697	2.0172
R_7	0.738	1.3394
R_8	0.912	2.4304
R_9	0.994	5.116
R_{10}	0.999	6.9078
R_S	0.99818	14.166

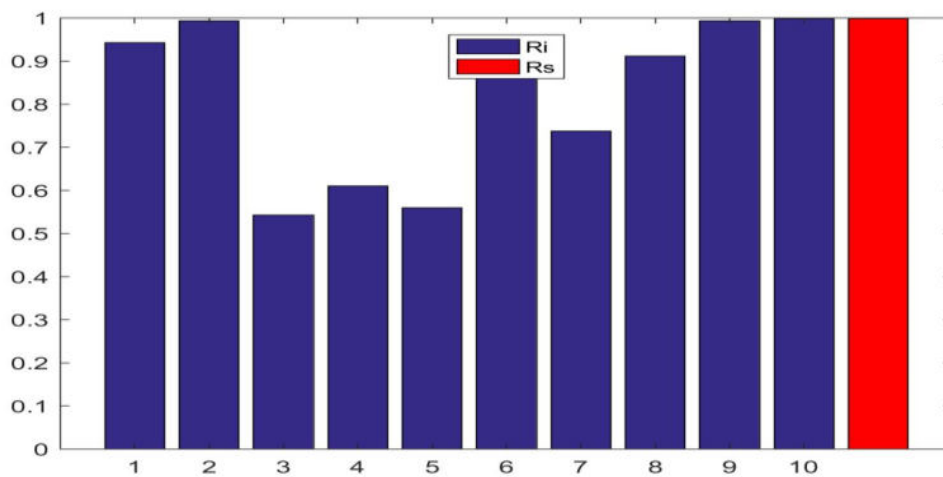


Figure 6: Allocating reliability for complex systems using the logarithmic model

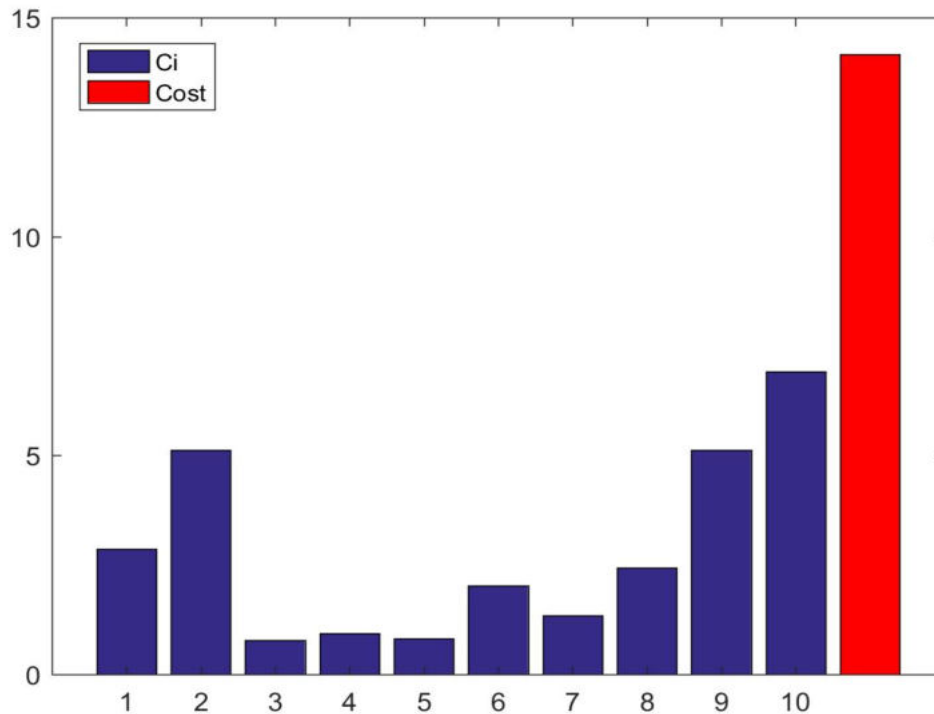


Figure 7: A logarithmic formula is by to calculate a cost function for a complex structure

Table 4 : The Presenting Three Cost Function Models' Solutions to The Reliability Allocation Problem's (ACO)

Components	The first cost function	The second cost function	The third cost function
R ₁	0.88761	0.88761	0.94267
R ₂	0.88761	0.88761	0.994
R ₃	0.81776	0.81776	0.54326
R ₄	0.87665	0.87665	0.61
R ₅	0.81568	0.81568	0.56
R ₆	0.61178	0.61178	0.86697
R ₇	0.84618	0.84618	0.738
R ₈	0.75824	0.75824	0.912
R ₉	0.87665	0.88761	0.994
R ₁₀	0.9133	0.9133	0.999
R _s	0.90166	0.90222	0.99818

5. Review the Outcomes

Table 4 shows the three cost functions we employed. and found that the logarithmic model provided the best results, with R_s=0.99818. Despite

the fact that the cost of each complicated system component was computed, the overall Each cost function's cost was determined using the (ACO), and a function's value was an exponential behavior model with a feasibility factor of (204.31). While a function's cost with an exponential behavior model is (350.82) and the logarithmic model's last cost of a function (14.166).

6. Conclusion

The challenge of enhancing a complicated network was handled in this article by assigning the dependability of system components according to their significance. For three costs with constraints, the topic was also treated as a nonlinear programming challenge (reliability of complex systems). To deal the reliability allocation problem, the ant colony optimization (ACO) method was utilized. A comparison was made between the findings when the data and discussions When the three cost functions were examined, The Logarithmic model proved to be the more effective than them. Component 10 earned the highest support, according to the reliability allocation issue.. The benefit of this paradigm is that it accepts any algorithm., no matter how complex, to be implemented using mathematical techniques.

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PEDAGOGICAL CHARACTERISTICS OF EDUCATION OF ENVIRONMENTAL LITERACY OF SCHOOL STUDENTS

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Abstract

This article is devoted to the psychological and pedagogical problems that arise in the improvement of environmental literacy among schoolchildren, and their solutions.

Keywords: ecology, ecological literacy, ecological culture, ecological education, pedagogy, psychological problem

From the classics of pedagogy Ya.A. Comenius emphasized that the sooner you start introducing a child to nature, the richer his life experience will be. He said that people absorb information more easily and better during childhood. In his work "Great Didactics", he defined the laws of education and upbringing based on the laws of nature, and emphasized that education takes place most often at an early age. It is during this period that it is easier for the child to inculcate useful ideas and correct shortcomings. Ya.A. Comenius concluded the ecological position of the connection between man and nature, their inseparability, and proved that processes in human society proceed like natural processes.

Other great pedagogues also promoted the strengthening and development of humanistic feelings in children through nature. G. Pestalozzi in "Lingard and Gertrude" defined the main goal of education - the comprehensive and harmonious development of "natural forces" in children, and its main principle is to observe the harmony of man with nature. He believed that it is necessary to direct children to the right path and help them develop.



Russian enlighteners of the 19th century. (VG Belinsky, NG Chernyshevsky, AI Hersen) encouraged people to move away from a formal and soulless attitude to the outside world. They say that knowledge about this affects the formation of moral qualities of a person and determines the behavior of children.

In the 60s of the twentieth century, the environmental situation in our country deteriorated sharply. Natural problems have become global. As a result, public attention to environmental problems has increased. Creating a new relationship between man and nature is not only a socio-economic, but also a spiritual task. In the young generation, it is necessary to form an ecological consciousness, an understanding of the inextricable connection between man and nature. Ecological awareness is not only knowledge and belief, but also ecologically competent behavior consisting of individual human actions (actions, skills), goals and motives. This once again proves that the formation of environmental consciousness and behavior should be started from early childhood in the family and preschool educational institutions.

The general goal of education and training, based on the characteristics of the child's mental development, it is possible and necessary to lay the foundations of a conscious attitude to nature at the primary school age, because it is during this period that it is alive, imaginative. emotional impressions are collected, the first ideas of natural history are formed, the foundation is laid for the correct attitude to the surrounding world and the direction of value in it.

Special opportunities of educational institutions allow to develop environmental literacy of young students, including:

- designing a non-standard developing environmentally friendly game environment;
- a comprehensive approach to environmental education involving specialists of various profiles;
- creating conditions for children's practical activities within the framework of environmental education;
- maintaining the child's right to choose the type and form of activity, as well as to organize individual work;
- use of various forms and methods of environmental education.

Early school age is the most favorable period for educating the basics of a conscious attitude to nature, because during this period the characteristics and qualities that determine the future essence of a person are rapidly formed. Young students are already ready to consciously interact with nature. It includes



both emotional aspects (eg, potential acceptance of nature, feelings of admiration for it, positive feelings towards natural objects).

After psychological research, it was concluded that primary school age is of decisive importance in the process of formation of leading and main neoplasms of a person. Neoplasms at this age are very stable and remain in their basic form for many years. Bojovich LI, in his research, identified such neoplasms at primary school age as a stage in the development of a cognitive attitude to the environment, which determines the transition to more complex forms of thinking that allow the child to act consciously with goals, moral requirements; stable forms of the child's behavior, which is the basis for the formation of his character.

Excursions clearly implement the principles of regional economic education of junior high school students and their integration with other principles. Problematic and partial research methods, as well as the active search for new knowledge by students themselves, are of great importance in the formation of ecological literacy. For students, creative tasks with an ecological content component also create great opportunities for the formation of environmental literacy. Their implementation requires students to constantly model their mental actions, so they affect creative thinking, positive emotional attitude to nature, and interest in its problems. Such assignments are valuable as they develop universal material for assessing the motives of young schoolchildren's attitude to nature.

The use of visualization, taking into account the age characteristics of young students, especially if a schematic representation of complex material and a system of images and symbols is used, it helps to increase the efficiency of acquiring environmental knowledge, to increase their level. Solving the set tasks allows us to move on to identifying the factors that make up the pedagogical conditions that affect the formation of environmental literacy as a socially required characteristic of the student's personality. Determining and taking into account the factors that determine the trends in the process of formation of environmental literacy among elementary school students is of great importance for improving the quality of environmental education, the result of which is an ecologically cultured citizen.

Currently, there are various classifications of factors affecting a certain pedagogical process, namely: objective and subjective, real and imaginary, conscious and unconscious, external and internal, etc. The analysis of



psychological-pedagogical literature also showed that the influence of factors influencing the systematization of factors. The process of forming environmental literacy of elementary school students can be summarized into two groups: general and psychological-pedagogical.

Cultivating a conscious attitude to nature is a difficult task, but constant work, use of various forms and means of education, joint activities of school and family will give positive results. Methodological direction of development of ecological literacy includes multi-faceted methodological and technological training, provides a set of skills that allows effective implementation of environmental education and training process (conducting excursions to the natural world, organization of educational ecological paths, summer ecological camps, preparation and holding of ecological holidays, organization of ecological activities and activities, educational activities, etc.). Nature, as a biological organism, is a source of livelihood and a natural habitat for man, and also creates opportunities for proper human development. Therefore, it is very important to show preschool children the aesthetic, moral, cognitive and other values of nature using understandable examples. The development of ideas about the value of nature inevitably leads to children's human attitude to nature, understanding of its intrinsic value. Such an attitude becomes an aspect of the ecological culture of the child's personality, helps to better understand the relationship between man and nature.

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ENVIRONMENTAL BEHAVIOR CHANGE AND STUDENTS' ENVIRONMENTAL ATTITUDE

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ANNOTATION

Environmental education and education for the environment play an important role in sustainability today. Environmental education provided by higher education institutions has an important impact on preparing the next generation for a green society. Over time, various problems occurring in nature (the thinning of the ozone layer, global warming, acid rain, water, air and soil pollution) have made people realize the need to treat nature more responsibly. but human responsibility for environmental protection is both individual and primarily collective. Conservation involves cooperation and support at the local, regional, national and other levels, especially at the international level.

Keywords: environmental education, educational environment, attitude to the environment, behavior, sustainability.

INTRODUCTION

At the current stage of society's development, environmental problems are coming to the fore side by side with the growth of the economy. Since the middle of the 20th century, due to the progress of mankind in the field of technology, environmental problems have only worsened in a negative direction. This, in turn, has become a topical subject of fundamental, natural and applied sciences. In turn, tasks related to the solution of various problems and their convenient and safe elimination are coming to the fore. The current environmental crisis is spreading freely across our planet, affecting the far-reaching biosphere and indirect habitats. Realizing the magnitude of this phenomenon, decision-makers at the global level and, more recently, at the national level, are trying to establish strict and urgent measures for the preservation of nature and the human environment, measures that are also covered by the education system. events are being developed. Even more important, it is the demand of the time and the natural environment to cultivate ecological culture and raise the ecological outlook of each member of the so-called society.



Environmental education in the environment. Educational institutions are adapting their curricula to instill a passion for environmental education in students using skills and laboratory activities, creating a new type of education.

they should develop, develop service and practical training in nature, for example, study the effects of plants and seasons on the environment. It is necessary to study the effects of various external factors on the behavior and behavior of society, cleaning activities in parks, rivers, waste processing on tourist routes, plants as a practical lesson. The use of creative activities in the natural environment has an even stronger effect and serves to raise the ecological worldview together with the above objects.

This is due to the fact that teachers are the initiators of education, the most important element of the educational system as a developer and implementer in the education process from the teacher to the education of learners, so the training of qualified teachers Efforts and care have always had an important place in the agenda of societies [1. 4-b].

Environmental education for the environment. The development of ecological knowledge, outlook, and ecological culture, which is the basis of ecological education, is formed through teaching in the course of the lesson, involvement in practice in harmony with nature, and in-depth analysis of the processes taking place in the environment where people live. Such actions should be oriented towards ecological stability. Ensuring the active participation of broad sections of the population in promoting the ideas of sustainability, the development and support of environmental health is an important aspect of activities related to the formation of ecological culture. The following situations are determined by the selection of this priority. In actual practice, most of the programs related to the formation of ecological culture are carried out by persons who do not have the appropriate professional and methodological basis. The effective solution of the set tasks allows to form citizens' desire to use natural resources in a reasonable, ecologically safe manner and to ensure the reasonable use of nature. People's positive attitude towards ecological structures is the strongest incentive for public support of their activities. Forming a positive attitude of the public to legal environmental requirements and the activities of environmental protection bodies is the most interesting and at the same time the best way to work with the population. Engaging people in direct hands-on activities to support environmental health creates a sense of immersion. Caring for what is characteristic of human nature, his creative activity is directed and he spends his energy on it.

World and local experience shows that the professional activity of specialists in the field of ecological culture formation has its own characteristics, which is not similar to the traditional activity of school teachers, researchers of nature reserves or other employees. Implementation of programs for the formation of ecological culture in the population deals with.

In order to create an effective system for the formation of environmental culture in all strata of the population, it is necessary to raise environmental culture and train qualified specialists in the field of environmental education, as well as provide appropriate methodological support [2. 9-b].

Of course, it should be noted that many aspects of the country's development depend on the normal state of the ecological environment. Behaviors in this regard, in turn, depend not only



on the educational process, but also on the development of the consciousness and culture of the society, and, of course, are closely connected with the educational environment.

In this regard, I thought that it is permissible to mention this point; "I am convinced - and it is becoming stronger - that the only way to strengthen culture is to elevate the masses, to make culture their own," wrote Natalya Egorovna, the wife of Vladimir Ivanovich.

The only way to ensure a safe future is to fully address the issues of environmental protection and economic development. Good health depends on socioeconomic development and a healthy environment, including safe food and water. The driving forces of environmental change are population, consumption and technology, as well as creative forces, ideals, courage and knowledge. The government and public organizations of our country, which are the initiators of the movement for sustainable development, have always directed and continue to direct their activities to the formation of an active citizenship position among society members [2. 37-p]. Without the active participation of the population, environmental problems cannot be solved by governments, organizations or institutions alone. If people do not understand the meaning and essence of environmentally friendly treatment, the importance of personal participation of citizens in environmental protection measures, any regulatory documents and any programs will be ignored. To understand the potential, people need practical experience and the limited possibilities of the environment. For this, it is necessary to actively work with the population.

I think that in the process of education, it will be good to inform students about the science of hadith, along with various literatures and events happening on the world stage. As we all know, Hadith is the second sacred source after the Qur'an according to the teachings of Islam, and contains the life and activities of the Prophet Muhammad (pbuh), as well as his religious and moral instructions. If the Prophet Muhammad (pbuh) said something or did something, or if he saw something that others were doing and did not forbid it, then each of these three cases is Sunnah. Narrations about such actions or instructions are called hadith. We can meet these people in many cases related to the way of life in every field, including those related to the environment and nature. We can cite them as examples: "Whoever prevents a flood or a fire, he will be rewarded as a martyr", "The meat of wild animals is haram", "If your cruelty to dumb animals is forgivable, then it is very many of your sins would have been forgiven", "If a believer sows a crop or plants a fruit tree, and birds, people or animals from them, it will be alms for him" [3].

I think that the application of these hadiths in the educational process will contribute to the growth of students' ecological outlook. Because God said, "And remember. Indeed, the reminder benefits the believers" [4] verse is not in vain.

In the process of ecological thinking, scientific ideas that are characteristic of ecological knowledge are processed, analyzed, compared, regulated, systematized, and conclusions are drawn. These, in turn, are the basis for making certain decisions and setting tasks. These priorities in the formation of a person's ecological worldview are complicated and limited in their application to the social practice of a person - (because there is little opportunity to deliver ecological knowledge to all individuals on a complete theoretical and practical basis) to solve environmental problems correctly by people hinders decision-making. It should be



recognized that "today, it is known that people do not have sufficient ecological knowledge, and some do not have it at all. Many people are aware of the existence of environmental problems, while some insist on the need to make urgent decisions and make a radical change in the way of protecting the environment, while other categories of people consider it a burden" [5. 51-b].

CONCLUSION

In conclusion, the development of the country and the ecological situation of the future are closely related today. This, in turn, is extremely important to strengthen mutual ecological harmony between society and people, to determine sustainable development, and in this regard, it is necessary to pay special attention to growing the ecological outlook of young people. At the same time, it is necessary to carry out calls aimed at improving the ecological environment among the society. In this regard, like our ancestors, they are well-behaved, well-educated, well-educated, made a worthy contribution to the development of world civilization, and each member of the society is able to achieve this level of perfection, universal human values combined with high moral standards. It is one of the most important and urgent tasks for everyone to act as one body and soul to ensure that they grow up in a spirit of deep respect.

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EDUCATIONAL TECHNOLOGIES AS A METHOD

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Abstract:

The article examines the use of modern educational technologies as a method and their effectiveness, the development of the student's mind, their positive and negative consequences in the use of educational technologies, and ways of organizing distance education.

Keywords: psycho-scientific, simulation, remote technologies

Ta'lim texnologiyalari metod sifatida.

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Xorijiy tillarni o'qitish metodikasi kafedrasida o'qituvchisi.

Annotatsiya:

Maqola bugungi kun zamonaviy ta'lim texnologiyalarining metod sifatida qo'llanilishi va ularning samaradorligi, o'quvchi ongining rivojlanishi, ta'lim texnologiyalaridan foydalanishda ularning ijobiy va salbiy o'qibatlarini, masofaviy ta'limni tashkillashtirish yo'llari tadqiq etiladi.

Kalit so'zlar: psixo-ilmiy, simulyatsiya, masofaviy texnologiyalar

Образовательные технологии как метод.

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Аннотация:

В статье рассматривается использование современных образовательных технологий как метода и их эффективность, развитие психики учащегося, их положительные и отрицательные последствия при использовании образовательных технологий, способы организации дистанционного обучения.



Ключевые слова: психонаучный, имитационное моделирование, дистанционные технологии.

Information technology, which makes a great contribution to the civilization of our time, has managed to show itself in all areas of the possibilities that humanity expected and did not expect. Especially in the field of education, its role is the reason for achieving unprecedented achievements. The effect of using new technologies in teaching from higher educational institutions to preschool educational institutions is felt. The use of video textbooks, slides, and visual aids as a new method, abandoning the traditional blackboards, greatly helps the student to understand the subject perfectly and to be able to apply it effectively in practice.

Therefore, analysis, comparison, presentation of the best in practice has become the demand of the time.

The potential impact of the currently used educational technologies as a method on the development of the human brain.

A question to be explored is the potential relationship between computer-assisted learning and the creativity of the human brain. Human respect for creativity and intelligence is increasing in Uzbekistan. An important issue related to the long-term impact of modern education and training methods on human innovation ability should be considered from a psycho-scientific point of view. Today, it is the responsibility of the teacher to choose the appropriate one from the many available teaching aids. It is necessary to monitor and standardize the use of all educational technologies used today. Science technology and pedagogy can be said to be a team striving for victory together, because they are simultaneously being developed every day by both experienced specialists and students who have taken a new step into teaching. At each stage of this development, it is necessary to define pedagogy as the main principle. Computer Assisted Instruction (CAI) has long been a topic of discussion among academics. In order to focus on the main purpose of the discussion, various educational technologies, particularly computer simulations, will be considered here. Simulation is undoubtedly the most advanced computer technology available to date. It is a simulation of the performance of a real-world process or system over time. It has been used in everything from medicine to astrophysics, from driving lessons to robotics. He also took a big place in pedagogy. Simulation compensates for the need to understand nature by providing virtual examples of scientific concepts and



situations that need to be taught. Through this, students will have an opportunity to learn the essence of the concept.

Using artificial intelligence to help overcome the limits of human imagination, programming and developing a computer simulation of an item requires a high level of imagination.

Presented to the reader as a simple and clear idea, is there an opportunity to develop imagination? So where does the imaginative human mind get its inspiration? If learning is driven at the speed of an artificial machine, when and how does the mind learn? Some researchers even argue that the constant stimulation received by the brain can cause destructive and scattered thoughts. The process creates a short attention span. Long-term memory is affected. A question that should be seriously considered is whether there are negative effects of using simulation in pedagogy. Can the use of computer simulation software inhibit the growth of the inquisitive, creative human brain? To what extent does nonstandard simulation software affect students' developing brains?

With every new development in technology, there are many applications that demonstrate it. Applications are customized in various fields. Because human nature is motivated by change, there is often an immediate improvement. Over time, with a set of new discoveries, the previous ones may become obsolete or undergo changes due to the appearance of negative factors. In recent times, the pace of scientific discoveries has accelerated tremendously. To avoid wastage of resources, evaluation should be done. Human education is a much more delicate matter than industrial or factory products. Care must be taken before any injury occurs. Regular, systematic research on relevant topics can point the way to ultramodern pedagogy. Although the scope of research conducted on the evaluation of various educational technologies in Asian countries is large, it is nominal. Pedagogical technology should be monitored with long-term implications in mind. The development of science and technology has opened a new direction and many perspectives in the science of pedagogy. A new direction in pedagogy using computer-aided education helps to increase the student's interest in science. With sophisticated modules and intelligent programming, teaching becomes easier and more effective. However, several conscious decisions need to be made by education policy makers to control the use of various technologies in education. Educators should be aware of the reality of the journey towards the knowledge society, computer-assisted



teaching and their increased responsibility to control the negative effects of the teaching process. Sometimes it takes time to carefully follow various computer instructions.

First of all, serious research should be done to prevent the long-term negative effects of the technologies used.

It is necessary to develop a qualitatively new perspective conceptual model of modern educational technology for the formation of professional competence in the field of integrated security through an interdisciplinary approach. The relevance of research with the need to improve educational technology for the formation of professional competence in the field of safety in vocational education (HRE). As a result, qualitatively new educational technologies have acquired a new quality that combines interdisciplinary knowledge and skills with social and personal qualities that ensure the success of graduates' professional activities in new socio-economic conditions. The development of new pedagogical foundations for the formation of a modern teacher as a creative person with both professional and professional creative competence is becoming one of the main problems of the education system of the Republic of Uzbekistan. The effectiveness of the educational technology was tested by the results, the achievement of a certain educational standard. The promising modern educational technology in integrated safety education applies to the entire system of vocational education. The target component model includes a strategic goal - formation of innovative thinking in a specialist who can effectively perform professional activities in accordance with the requirements of international standards in the field of security; strategic goal - to determine the ways of effective formation of professional competence in the field of comprehensive security and to provide conditions, special goal - to define and implement the content, forms; educational methods and methods at each stage of continuous professional activity.

In the interdisciplinary methodological component of the model, methodological reflection (ability to analyze one's own scientific activity), scientific reasoning ability, critical thinking and creative application of certain concepts, forms and methods from various fields of knowledge management, construction safety in one's professional activity. The purpose of the following work is to determine the system of criteria, indicators and levels of analysis of communicative competence in pedagogical speech. The organizational-



pedagogical component of the educational process in the field of integrated security features consists of the following: content, forms and methods that ensure active educational and practical activity of students and teachers, appropriate formation of professional competence at the secondary school level and development of promising technologies exit distinguishing the forms of organization of specialists at the postgraduate level, mastering the process of material management and diagnosing the educational process. The evaluative and effective component of the model includes the ability to transfer the research approach to different areas of specialization and be used in various non-standard situations. The predictive component of the formation of professional competence based on modern educational technologies and interdisciplinary relations ensures the successful work and development of a person in the professional field, the ability to adapt to a new professional, rapidly changing commercial environment. Modern prospective research of pedagogical educational technology is aimed at finding problems in the field of integrated security, developing creativity - a creative person ready to create fundamentally new ideas. Systematic integration of information technology and interdisciplinary communication in integrated security and the use of the principle of student-centered education allow the student to be active and make decisions about the prevention of emergency situations (ES).

Modern advanced pedagogical research technologies include organizational, meaningful and analytical stages. Procedia – Social and Behavioral Sciences field of integrated safety, theoretical justification of its implementation, formation of hypotheses, determination of criteria and methods of research work.

ICT and distance learning technologies provide students with electronic technologies.

Educational resources for independent work, tasks for independent performance, methods of implementation, individual approach to each student and others.

The use of remote technologies in the conditions of the credit-module system allows the following (B. I.V., 2011):

a) students - choosing a convenient time for learning and mastering subjects, conducting module control remotely and independently, analyzing educational activities.

b) teachers - systematic management and control of students' educational work analyzing their performance in each module of the curriculum.



In short, the above encourages students to master the content of higher education.

Currently, the most common distance technologies of the educational process helping in high school (T.V.M., 2009):

- Case technologies;
- Smart-Television technology;
- Network ICT (information and communication technologies).

Telesputnik and network ICT are most often used in higher medical education. Among the latter, the most common are special information systems, which are sometimes called learning management systems (LMS) or software-pedagogical systems.

Currently, there is a wide range of learning management systems distributed commercially (WebCT, Blackboard, Microsoft Learning Gateway, etc.) and free (Atutor, OLAT, Sakai, MOODLE).

To provide students, doctors (pharmacists) interns and medical students organization and management of electronic educational materials, independent work;

automated test, networked integration model of full-time learning

Information and communication technologies of training based on LMS "MOODLE" is used in BSMU.

MOODLE (modular object-oriented dynamic learning environment) is an educational or virtual learning environment management system. This system implements the philosophy of "social constructivism pedagogy" and focuses primarily on the organization of interaction between teachers and students, supporting the organization of traditional distance learning courses and full-time education. - suitable for support. With over 10 years of development based on social constructivist pedagogy, Moodle provides powerful learner-centered tools and collaborative learning environments that expand teaching and learning opportunities.

MOODLE has been translated into dozens of languages, including Ukrainian. The system is used in 50 thousand institutions in more than 200 countries of the world. The introduction of this system into the educational process of BSMU began in May 2010, when a working group on the development of measures for the introduction of remote technologies into the educational process was established. The working group studied the legal, organizational-methodical,



scientific-technical foundations of the use of distance education technologies, and developed a plan of appropriate measures based on them.

Moodle provides the most convenient and flexible options for blended learning and fully online courses. Customize Moodle by enabling or disabling features in the system, and everything you need for your course is easily integrated using the full range of built-in features, including external collaboration tools such as forums, Teacher-to-Student chats and blogs.

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ECO AESTHETIC EDUCATION OF FUTURE SPECIALISTS OF PRESCHOOL EDUCATION ARTICLE IN THE MAGAZINE FOR STUDENTS

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Annotation

The forming of students' environmental culture in educational field of a university is displayed. The formation models of moral and aesthetic components of the environmental culture are presented, the content of units and modules is disclosed. Fragments of the author's programme of the environmental and educational projects are given.

Keyword: Environmental culture, moral component, aesthetic component, educational field, model.

The formation of an ecological culture of the individual is one of the urgent and priority tasks of the educational work of modern pedagogy and is an area of purposeful pedagogical activity designed to change the attitude of a person and society to the environment.

To preserve the biosphere, traditional measures to improve environmental management are not enough to assimilate and deepen environmental knowledge. It is possible to overcome this situation by enriching the moral and aesthetic potential of a person. In this regard, modern pedagogical science pays special attention to improving the system of environmental education and upbringing, environmental awareness, environmental activities. The ecological component of the content of the educational process will contribute to the manifestation of new relationships in the human-nature system.

Currently, in order to understand the laws of rational use and reproduction of natural resources, to reassess the means of influencing the natural environment, to assimilate relevant knowledge, to develop the spiritual world of a person capable of morally and aesthetically developing relationships in the natural world, a new type of culture is being formed, adequate to the modern ecological situation – ecological culture.

"Ecological culture is the level of development of general culture characterized by awareness of the self-worth of the natural world and man as part of nature,



developed need for responsible, predictable, expedient activities based on moral, aesthetic and value perception of the natural environment, leading to the humane establishment of conformity and harmony between the ecological needs of a morally and aesthetically educated person with the possibilities of the natural world, leading to the convergence of nature and culture, i.e. the ecosphere".

"The ecological culture of a student is a qualitative change in the spiritual world of a person under the influence of basic and special knowledge, skills, norms of behavior, experience of free choice of actions in the natural environment, expressed in the ability to aesthetically perceive, morally, actively act, generalize and analyze diverse natural relationships and phenomena, the ability to transmit, form and develop these qualities in the spiritual world of the younger generation, realizing the coevolutionary path of development of nature and society".

Purposeful educational and educational courses, projects, programs, models contribute to the formation of the ecological culture of university students.

"The model of formation of moral and aesthetic components of the ecological culture of students" is a system of a meaningful pedagogical process that creates a scientific basis of beliefs that serve as guidelines in behavior, activity, relationships in the field of "man-nature". The modeling method provides a clear professional orientation and coordination of pedagogical activities for the formation of moral and aesthetic components of the ecological culture of university students. The model allows you to manage, rebuild, and improve the pedagogical process under study.

The model includes information from the field of natural science, general humanitarian, pedagogical disciplines, laboratory and practical classes, field practices, elective courses, creative studies and research activities.

The formation of moral and aesthetic qualities of the personality of university students is the main goal of the pedagogical experiment, which subordinates the functions and actions

of all the components of the model being developed to form the ecological culture of the individual.

The proposed model defines the following components of the system model blocks: 1. motivational-target;

2. informational and cognitive; 3. creative and activity;

4. control and evaluation.

The first block - motivational-target - involves the development of the motivational sphere of personality, i.e. motivating forces for the formation of the moral and aesthetic component of the ecological culture of the individual, based



on environmental knowledge, skills, skills acquired in the process of studying subjects of the biological cycle. Information from the field of botany, zoology, human anatomy, ecology, etc., not only deepens knowledge, develops ecological interest, but also ensures the formation of a reasonable responsible relationship with the world of nature and reflects the willingness of individuals to act ecologically.

Field practices in natural sciences allow students to acquire sustainable ecological skills, habits and experience in herbarizing, preserving, fixing plant objects and mounting herbariums for scientific collections. To master the skills of observing biological objects, methods of studying and predicting the state of the environment. To study the methods of monitoring reference natural territories and forecasting the natural environment, while studying and consciously observing the norms and rules of behavior in the natural environment. Such a method of communicating with nature opens up more possibilities for forming moral normal relations with nature.

In the process of cognition related to the natural reality, students have an idea of the aesthetic picture of the natural world and its value, in connection with which they are ready to reconsider, overestimate their attitude to the growing animal kingdom of nature.

B.T.Likhachev identifies the following features that encourage a person to express moral and aesthetic relations to nature - nature is an object of cognition and aesthetic perception. The study is capable of forming a scientific worldview. This is due to the necessity of obtaining environmental knowledge and the implementation of universal, mandatory ecological education, laying the foundations of ecological culture[3].

Thus, the motivational-target block has potential opportunities for the development of motivating forces for the formation of moral and aesthetic components through the assimilation of environmental knowledge and the development of environmental interest in the process of studying the subjects of the natural science cycle.

The second block-informational and cognitive-includes information from general humanitarian disciplines, primarily philosophy, psychology, pedagogy, cultural studies, which will form not only the ideological space, views, beliefs, stable motivation, in a moral and aesthetic orientation, but also influence the development of personality, creating a holistic image of the world, revealing the concept of "nature", "man", "culture".



This ensures the interaction, interconnection, synthesis of the only components of the system model.

At lectures and seminars on philosophy, students get acquainted with scientific, philosophical and religious pictures of the world, comprehensively analyze the definition of "man-society-culture" and separately focus on the relationship between the system "society-nature". They reveal the meaning of human existence, freedom, responsibility, and morality. There are moral and aesthetic values and roles in a person's life.

In the course of general psychology, the human problem is presented as a subject of systematic research. The main psychological theories of personality, orientation and its psychological manifestations, needs, motivations are studied. The features of perception, imagination, emotions, feelings and will are characterized.

The cycle of pedagogical sciences reveals the methodological foundations of morality, provides information about the need to use environmental knowledge in order to preserve nature and prevent irreversible disruption of ecological balance. Indicates the methods and technologies of organizing the development of moral qualities of a person. Focuses attention on

the definition of goals, objectives, content of aesthetic education of students, using the activation of aesthetic self-development and self-improvement of personality.

The course of cultural studies is aimed at mastering the basic concepts: culture, civilization, cultural anthropology, cultural values and norms, cultural traditions. Ethnic and national cultures are considered. The topics of culture and nature, culture and society, ecological culture and global problems of modernity are especially presented.

The content of the disciplines of the humanities cycle has a sufficient base of possibilities for a deep understanding of knowledge about the laws of the evolution of nature and man, orienting the formation of ecological culture.

The third block - creative and activity - includes the development of the author's special material - the textbook "Moral and aesthetic education in the process of formation of ecological culture" [1]. The content of which was implemented in the framework of the courses "Formation of Ecological Culture" and "Floristic Art". Using the content of the course "Formation of ecological culture", it was supposed to deepen knowledge about the moral and aesthetic component regulating human behavior when communicating with nature, to identify the principles of ecological humanism and the concept of preserving the biodiversity of nature, to reveal the



emergence of environmental tensions and to outline ways to stabilize the relationship in the "man-nature" system.

The logic of the content is the following:

- analysis of the problem of formation of ecological culture;
- identification of the moral and aesthetic system-forming component of ecological culture;
- presentation of myths, legends, fairy tales as a source of moral norms, rules of human interaction and nature;
- the meaning of the mythologization and the meaning of the personification of nature;
- the disclosure of the concept of "cosmism" as a phenomenon that reveals a person as an improving natural being capable of building a harmonious relationship with the world of nature;
- analysis of the dynamics of moral and aesthetic relations between man and nature from ancient historicepochmodernity;
- consideration of human ecology and development of ecological problems; -post-industrial period, noosphere.

The course "Floral Art" - the art of making flower compositions from natural and decorative materials - is focused on the organization of the creative process with the aim of forming moral and aesthetic components of ecological culture.

Creativity is the creation of an original product, a product in the process of working on which self-applied knowledge, skills, skills, including their transfer, combination of known methods of activity, or a new approach to solving the problem was created. Teaching and creative activity is considered as an activity that contributes to the development of a whole complex of qualities of a creative personality: mental activity; the desire to acquire knowledge and skills; independence in the choice of solving tasks .

This course solves the following tasks:

1. Formation and development of emotional perception of the natural world as a source of beauty.
2. Education of the aesthetic need to communicate with nature through creative activity.
3. Development of aesthetic knowledge, skills, and taste.

Mastering ecological knowledge, preschoolers learn about their own constitutional features - the corporality of living beings, about the enduring value of life. This improves the morality, spirituality of the individual, the



aesthetic perception of nature, the ethics of human interaction with the outside world is formed. There is an increasing opportunity to improve cognitive skills, observation, cognitive interest, the ability to understand the consequences of actions, to realize the importance of observing the rules and norms of behavior in nature. The aesthetic culture of the educator is a complex structure that exists in the space of the external and internal world and covers its professional, general cultural and personal aspects.

In the personal development of an educator, it is extremely important to have a qualitative combination of moral, ethical and artistic and aesthetic development on the principle of full and free realization of the essential forces and abilities of a person. It is in activity that the system of an individually differentiated artistic and aesthetic attitude to reality finds expression. According to Kipling, an educator is interesting who is able to think without making thought his goal, combining true education with the will and the ability to realize oneself in creative activity. In modern pedagogy, aesthetic culture is the subjective position of the teacher, which determines the promotion of cultural values, their spiritual, aesthetic and artistic significance to the generations of students being taught and brought up.

Aesthetic culture is the most important component of the spiritual image of a person, on the presence of which and the degree of its development depends on the intelligence of a person, the creative orientation of aspirations and activities, attitude towards the world and other people, which is very important in modern society.

The aesthetic culture of the educator is the leading factor in the spiritual, general cultural and aesthetic development of both students and their parents. The educator forms aesthetic feelings, needs, the foundations of a healthy taste for children, develops their emotional responsiveness, and so on. These are the very characteristics of the emotional-sensory sphere of a person, which will later determine the content of his social actions, the route of his personal and general cultural development, and form his creativity for all future activities.

The necessary conditions for the formation of the aesthetic culture of the educator are:

- adherence to the principles and norms of morality;
- development of skills of independent moral orientation;
- the formation of socially valuable moral and aesthetic beliefs and behavior;



- development of theoretical problems of pedagogical tact and pedagogical technique;

- development of skills and abilities of pedagogical communication.

The educator is an active subject, realizing in his professional activity his culture, understanding of life, aesthetic taste, ideals, cultural values and meanings. The educator, as a subject of aesthetic culture, is able to form cultural meanings, affirm aesthetic values, teach solving vitally important tasks in non-standard creative ways.

The preservation and transmission of the aesthetic norms and values developed by long experience of generations is one of the priority strategic lines of the educator's activity. Initiation to the universal human aesthetic experience of children is carried out in two interrelated ways: by revealing the creative forces inherent in the child and introducing him into the world of culture, where conditions are created for the growth and strengthening of his feelings, imagination, artistic perception, a variety of artistic activities in which the inherent inclinations can be fully realized. development. One of the central places in the aesthetic activity of the educator is the appeal to the multifunctionality of art - its ability to be a way of knowing the world around us, evaluating it, communicating, developing personality, correcting problems in development, a way of playing and entertaining, appealing to the ability of art to reflect values and meanings, to form artistic taste, creative thinking, understanding of beauty that affects the inner world of a person. An important role in the modern conditions of life of a preschooler should be assigned to the ability of art to be an active link in health-saving technologies. Art is able to balance mental congestion, "take away" from aggressive ways of behavior.

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OBSTACLES TO THE APPLICATION OF TOTAL QUALITY MANAGEMENT FOR TEACHERS OF SOME FACULTIES OF PHYSICAL EDUCATION AND SPORTS SCIENCES

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Abstract

This research aimed to reveal the obstacles to the application of total quality management in some colleges of physical education and sports sciences in Iraq from the point of view of the research sample and to reveal ways to overcome these obstacles by answering the question What are the most important obstacles in the application of total quality management in some colleges Physical education and sports sciences in Iraq from the point of view of the research sample. To answer this question, the researchers built a scale consisting of (34) phrases that include obstacles related to the administrative body, obstacles related to the teaching staff, obstacles related to the university facility, obstacles related to scientific research, obstacles related to community service .

And the research questions need to be answered, so the researchers used the descriptive approach in an analytical method because it suits the topic of the research. The research community may consist of deans of colleges and institutes, directors of centers, heads of scientific departments, officials of people and quality assurance units in some faculties of physical education and sports sciences in Iraq.

The researchers relied on selecting a sample of his research on the simple random method, where the number of sample members (190) were chosen from three colleges of physical education and sports sciences from the Iraqi





universities of Iraq: (Tikrit, Mosul, Kirkuk), the scale was applied to this sample and the treatment. The data was used using a set of statistical methods. The responses of the research sample were analyzed and the results were obtained that there are some obstacles that prevent the application of total quality management in some faculties of physical education and sports sciences in Iraq, which have been diagnosed and can be overcome through the proposed methods and in light of these Results. The researchers recommended a number of recommendations and suggestions.

Keywords: administration, obstacles, total quality, teachers.

1-1 Introduction:

“Total quality has become the focus of attention for most countries of the world as it is a basic pillar of the new management model that allows it to keep pace with global developments by keeping pace with international and local changes in order to adapt to them” (Khouli, 2005 , 34) , a faculty member in Iraqi universities is an important pillar of the educational process, and is very important. In order for higher education institutions to reach the level required for academic accreditation and the application of total quality management, the education process takes a broad interest in his daily thinking and the ideas he presents that serve the educational process and the development of his educational institution. Education and the provision of community services, and (Mahrous bin Muhammad Ghabban, 2003) points out, “There are a set of challenges facing education in general as justifications for its development by following the method of strategic planning. Development in the educational process, educational resources and the services it provides to society (Ghaban, , 2011 , 56), and here comes the importance of the current research in the field. He went to identify the strengths and weaknesses in the faculties of physical education and sports sciences in some Iraqi universities, and try to identify and improve the strengths and weaknesses, and address them.

1-2 Problem Research

The faculties of physical education and sports sciences in Iraq and the Arab world are seeking to obtain academic accreditation, and very few have obtained that accreditation, but many of those faculties are striving to obtain academic accreditation, and the obstacles in the application of total quality management



and the lack of solutions to them is what It is forbidden to obtain academic accreditation, so researchers in this research shed light on these obstacles and find solutions to them. On these obstacles for improvement and development in the application of total quality management, where the researchers' sense of the current research problem in the light of the results of studies, educational conferences and scientific symposiums that were held in some colleges of physical education and sports sciences in Iraq, and based on the above, the current research problem is focused on the question the following:

What are the most important obstacles that stand in the way of the application of total quality management in some faculties of physical education and sports sciences in Iraqi universities from the point of view of the teachers?

- What are the ways and solutions that guarantee overcoming these obstacles in the application of total quality management in some faculties of physical education and sports sciences in Iraq?

1-2 Research Objectives:

Building a scale to identify the obstacles to the application of total quality management in some faculties of physical education and sports sciences in Iraqi universities.

- Identifying the differences in the obstacles in the application of total quality management in some faculties of physical education and sports sciences in Iraqi universities and finding solutions to overcome them.

1-3 Research Areas:

The human field: teaching some faculties of physical education and sports sciences in Iraqi universities.

Spatial domain: the faculties of physical education and sports sciences in (Tikrit, Mosul, Kirkuk).

Time range: the period from 1/15/2022 to 3/20/2022.

2-1 Research Methodology:

The researchers used the descriptive approach in both survey methods and interrelationships for its suitability and the nature of the research.

2-2 Research community:

The research community consisted of teachers holding master's and doctorate degrees in some faculties of physical education and sports sciences in Iraq for the academic year 2021-2022, as their number reached (190) teachers distributed over (3) colleges. The number of the sample was (190) teachers who



were tested from three colleges of physical education and sports sciences in Iraq: (Tikrit, Mosul, Kirkuk). Table (1) shows that:

Table (1)
Research community by colleges

	University	Number of Teaching		Staff Total	Percentage
		Masters	PhD		
1	Tikrit	12	28	40	05.21%
2	Mosul	21	107	128	36.67%
3	Kirkuk	11	11	22	57.11%
Total		44	146	19	100%

2-3 Search tools :

In order to measure the current research variable and to achieve the goals set, the researchers reviewed some studies and standards related to the research variable. Sports in Iraq, and the scale consisted of (44) phrases in its initial form, and in front of each phrase there are five alternatives: (I agree completely, I agree, I agree somewhat, I do not agree, I do not agree at all) and the grades are given as follows (1, 2, 3, 4, 5).

2-3-1 Phrases Validity :

For the purpose of identifying the validity of the statements, the scale was presented in its initial form to a group of experts and specialists in education, psychology and sports management.

To determine the validity of its phrases, and in light of the experts' opinions, the phrases that obtained an agreement percentage of (80%) or more were retained. Accordingly, it was agreed on (5) phrases that did not obtain the agreement of the experts, and thus the assessment is made up of (39) phrases. For the purpose of presenting it to the construction sample to complete the statistical analysis, the scale of obstacles to the application of total quality management in its initial form was applied to (133) teachers who were randomly tested from the research community as follows:

2-3-1-1 The two extreme groups:

A percentage of (27%) of the forms with the highest scores in the scale and the proportion of the lower scores were selected. The number of forms in each group was (36) t-test forms. The T-value was considered an indicator to



distinguish each phrase by comparing it with the tabular value of (2,00). The expressions that did not get a significance level less than (0.05) were (4) statements.

2-3-1-2- Internal consistency:

The researchers used the Pearson correlation coefficient to extract the correlation between the degree of the statement with the statements of the scale as a whole, and all the correlation coefficients were consistent with the scale except for (1) statements whose significance level was announced from (0.05), and thus the scale is composed in its final form of (34)) phrase.

2-3-1-2 The Constancy :

The reliability of the scale, the obstacles to the application of total quality management, was calculated using the split-half method, and it was treated with the Spearman-Brown equation, as the reliability coefficient was (0.826).

2-3-1-3 Scale correction:

After building the scale, it consists of (34) statements, and the answer to the statements is to choose one of five alternatives (agree completely, agree, agree somewhat, disagree, never agree), and scores are given (5, 4, 3, 2, 1).), and the degree of the scale ranges from (34-170) degrees.

2-3-1-4 The main experience:

After the researchers completed the research tool, verified its validity and reliability, and performed the appropriate statistical analyzes, they applied it to the sample of the application, which numbered (57) teachers, who were randomly tested from the faculties of physical education and sports sciences for the research sample.

2-4 Statistical means:

The researchers used the following statistical methods using the statistical program (spss)

- T-test for two independent samples.
- Pearson's correlation coefficient.
- Spearman-Brown equation.
- T-test for one sample.
- Percentage equation .
- Weighted mean Equation .
- Weight percentile equation.



3- Show the results:

The first objective: Building a scale to identify the obstacles to the application of total quality management in some faculties of physical education and sports sciences in Iraq:

Table (2)

Between the arithmetic and hypothetical mean and the standard deviation of the scale of obstacles to the application of total quality management by colleges

College	mean Arithmetic	Standard deviation	Hypothesis mean
Tikrit	62.729	5.653	102
Mosul	59.393	5.927	
Kirkuk	66.811	7.800	
Total	62.978	6.46	

It can be seen from Table (2) and by comparing the results of the arithmetic mean of a sample of obstacles to the application of TQM for the research sample with its hypothetical mean, it turns out that the value of its hypothetical mean is greater than its arithmetic mean, and this indicates that the research sample has a low level of obstacles to the application of TQM.

The researchers attribute this to the teaching staff's enjoyment of good teaching and academic competencies, as well as the presence of sufficient training courses for comprehensive quality programs and the availability of the necessary statistics to implement its system, in addition to the academic leaders' conviction to apply them and to allocate the appropriate and sufficient support that motivated them to work on providing an appropriate environment that supports the foundations of the success of its application in colleges of education This is done through holding workshops, conferences and continuous awareness by specialists on these concepts and for all employees, and this in turn leads to keeping pace with the development and catching up with the advanced countries in this field, especially that the means of communication and the method of its use have become easy to circulate and use thanks to modern technology and that the development and development of Chiefs and subordinates is one of the most important requirements for the success of modern management. Training employees on their work technically and humanly and everything related to achieving the goals of the ministry is a necessity for that, and training them on communication skills, facing and solving problems, leadership and training in human relations also has a great role in

developing all administrative levels and thus developing the institution. It is mentioned (Saleh Nasser Ali The factors affecting the quality of faculty members include teaching competencies (skills, knowledge, and scientific level), as well as the level of training and academic qualification and the positive academic environment contribute effectively to overcoming the application of the total quality management system (Olimat, 2021, 185).

Table (3)

The differences in the obstacles to the application of total quality management by colleges according to the analysis of variance

Contrast source	sum of squares	degree of freedom	Calculated (F) value	mean squares	Sig.	Indication
Between groups	474,181	2	237.095	7.22 *	0.000	Significant
Within groups	9528,952	54	32.858			
Total	10003.133	56				

- Significant differences ≤ 0.05

It is evident from Table (3) that there were differences between the faculties of physical education and sports sciences between the universities of (Tikrit, Mosul and Kirkuk) and for the purpose of identifying the differences, the researchers relied on the Duncan test to find out the differences.

Table (4)

Duncan test for arithmetic averages

Sample	arithmetic mean	Differences
Mosul	62.729	B
Tikrit	59.393	AB
Kirkuk	66.811	A*

Table (4) shows that the differences showed that the teachers of the Faculty of Physical Education and Sports Sciences at the University of Kirkuk have obstacles to the application of the total quality management system to a large extent, followed by the University of Tikrit according to the arithmetic mean score and a lower level of obstacles to its application. The college at the University of Kirkuk lacks some logistical or human supplies and qualifying



courses compared to the two universities. These obstacles can be reduced by providing the requirements needed by the teaching staff in this university, as well as attracting experienced teaching competencies, paying attention to graduate studies, holding conferences and courses, and issuing a scientific journal for the college and making it Sober, as well as the collective tendencies or general culture of the community within the university and college campuses of the teaching staff have their own characteristics that distinguish each of those colleges, and the heads of universities and colleges should take into account these characteristics for them, as Salah El-Din Mahmoud Allam believes that "the characteristics of the reference group that derive from These include criteria, and how similar they are to the characteristics of the individuals who will make decisions about them in the light of these criteria, which are not absolute or stable, but rather are relative criteria that depend mainly on certain reference groups, and these criteria are greatly affected by changing the characteristics of these groups, with which the individual is compared in a particular trait, or group of traits, that the scale measures ". (Allam, 2012 ,261) .

Also, functional work is a group work that depends on the capabilities of the individual within the group. The establishment of a new educated generation cannot be established by one individual. The diversity of sciences and knowledge necessitates the community to provide the appropriate and diverse specializations within the colleges. Therefore, when building the foundations of management and total quality management, it must focus on that the obstacles that It has affected job diversity. It is the work of all employees and each individual has his own knowledge, science, concepts and abilities that he can work with. Therefore, institutions must take into account the teachers and provide them with the special requirements that the work requires, as working in the sports institution is the work of an integrated beehive and confirms this (Al-Shafi'i) "Working in sports institutions to achieve total quality management standards should focus work on all employees in different sports institutions, not some or any individual, regardless of their experience and qualifications" (Al-Shafi'i, 2006 , 84).

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Supplement (1)

Scale of obstacles to the application of total quality management

	Phrase	Totally agree	Agreed	I kind agree	I do not agree	I never agree
	The lack of a clear picture for the college administration about the concepts of total quality management					
	Lack of qualified teaching staff in the field of total quality improvement					
	Difficulty accepting the required changes in college culture					
	Weak delegation of senior management to lower management					
	Absence of a system of incentives and rewards associated with total quality results					
	The many regulations and laws in force in the college that prevent the application of total quality management					
	There are some behavioral practices in the college administration that hinder the application of total quality management					
	Lack of conviction and belief in the feasibility of total quality management among college leaders					
	Familiarity of the departments in the college and their accustomed to administrative patterns that are difficult to change					
	Lack of sufficient training courses for total quality programs.					
	The financial capabilities currently available are insufficient to implement total quality management in the college					
	Statistical data needed to implement total quality management are not available					
	Lack of sufficient support from the college administration to implement total quality management					
	The lack of equality in the assignment between faculty members					
	Working on the application of total quality before providing the appropriate environment for its success leads to failure in its application					
	Some academic leaders are not convinced of the application of total quality management					
	Lack of suitable working conditions					



	Lack of participation of faculty members in administrative aspects					
	Weak communication channels between university departments and departments					
	Weak moral and material incentives in distinguishing creators.					
	Lack of modern educational means suitable for academic work					
	Weak trust in faculty members on the part of academic leaders					
	The lack of social services provided to the faculty member					
	The complexity of the procedures for promoting a faculty member					
	Limited professional development programs for faculty members					
	Centralization of administrative services provided to faculty members					
	Lack of objective criteria to measure performance					
	Poor awareness of the concept of lifelong learning (continuing education)					
	Increasing the burden of teaching at the expense of scientific research					
	The limitations of the teaching research aids for the faculty member					
	Weak financial support for scientific research					
	Lack of participation of faculty members in the company with the global and local research center					
	The difficulty of identifying research needs that include priorities for excellence					
	Poor communication with employment institutions to know their needs					



THE LEVEL OF EMOTIONAL INTELLIGENCE AMONG THE DORMITORY STUDENTS

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Abstract

The research aims to study the level of emotional intelligence and emotional knowledge as well as social communication in the students dormitory, at the Technical Institute of Kirkuk. The research tool (the emotional intelligence scale) developed by researcher (Alwan, 2011) was applied to a sample of students dormitory, of the Technical Institute of Kirkuk (190) individuals out of (225) from the first and second stages in the academic year 2017/2018.

The first objective was to identify the level of emotional intelligence among the students in the dormitory in the Technical Institute of Kirkuk, reaching an average of 3.43. This indicates that the level of emotional intelligence of the sample is medium

The second objective is to identify the emotional knowledge among the students, reaching an average of 3.20 which indicates that the level of emotional knowledge of the sample members is medium.

The third objective is to identify the ability of the students in the social communication, reaching an average of 2.20 and this indicates that the ability of the sample to social communication is low

The research recommends raising the level of university students in social intelligence and emotional intelligence by delivering continuous lectures in this area in the curriculum exercises and practices sufficient on how to identify and distinguish emotions. It is also how intensify this in particular in the curricula of students and attention to emotional intelligence. It shows the skills of coping with pressure and giving them to students at all levels of education.

Keywords: Emotional, Intelligence, Self-awareness, Social media, Emotional knowledge.

Introduction:

Emotional intelligence is a modern concept that appeared in the field of psychology at the beginning of the nineties, due to the development that is



taking place in the era in which we live. It requires an unconventional vision of the concept of intelligence and what the individual requires of mental abilities and emotional skills to solve the problems faced in dealings with other people.

The efforts of contemporary psychologists paved the way for studying this intertwined and complex relationship between conscious logical thinking and the energy of emotions. The cognitive psychologists began to refer to reconciling thinking and emotion in a way that enables them to succeed in various aspects of their lives. This is especially related to social relationships. This ability is called emotional intelligence, and it is also called emotional intelligence.

The individual's adaptation and facing life successfully depend on the integrated employment of his emotional and mental abilities. Also, the individual's success in personal relationships depends on the individual's ability to think about his emotional experiences and emotional information.

Emotional intelligence is the key to success in professional life, compared to academic intelligence, which is the key to academic success.

It is one of the skills that affect the individual's ability to succeed in compatibility with the demands and tasks of life and its pressures. It helps to have the ability to positively influence them, and they are generally happy with those relationships.

Finally, the weakness in the skills of emotional intelligence hinders the performance of the mind, such as the inability to understand emotions such as fear, anxiety, and anger, and the ability to control them. Yet, it has control, understanding and controlling emotions, positive communication, the ability to solve problems, and optimism despite obstacles are all matters. It facilitates mental performance and enables to work to the fullest creative potential.

Part one

First: the research problem

The emergence of new concepts such as emotional intelligence and modern theoretical models in the field of psychology is an urgent need to verify the premises of those theoretical models and the assumptions on which they are based. It is to know the extent of the contribution of emotional intelligence to achieving the psychological compatibility of students, which still needs in-depth research to understand all the dimensions that it includes.



In daily life, a person faces many situations, including pleasant and unpleasant ones, and his reaction varies from time to time, or from one situation to another, or the reaction today to a situation may not be the same at another time in the same situation. This is to using emotional intelligence in time and situation. The appropriate one leads to flexibility in himself, and creates in the individual flexibility in managing his emotions, and the ability to adapt in different life situations.

The development and upbringing of emotional intelligence begins at home, as children learn the skills of dealing with life's problems through interaction with parents. They help to identify his emotions, respect and appreciate feelings, and start social communication, and this is the basic knowledge of the individual. Parents may make a mistake in raising emotions and ignore children's feelings.

Emotions differ according to the personality of the individual and according to the situations he is exposed to. There is a way in which the individual deals, in order to program the feelings in a way and manage them in smart situations linked to thinking and his skills.

Emotional intelligence is primarily responsible for managing and regulating emotions, directing them, and controlling the emotions of the individual, which enhances the individual's mental and emotional growth. Thus, the emotionally and socially intelligent individual sees that s/he is a better individual than others in recognizing his/her own emotions and the emotions of others in a successful and proper manner.

Based on the foregoing, it can be said that emotional intelligence is a key factor for overcoming many conflicts, frustrations, and many difficult situations. Many studies and previous research have shown a positive correlation between emotional intelligence and academic achievement, innovative and critical thinking, and this is what students need in colleges. and study institutes. Accordingly, the research came as a necessary need to know the level of emotional intelligence among the dormitory students. This will be examined to show their abilities in dealing with each other, through which it is possible to identify the ability of a sample of students to control their emotions. Emotional intelligence differs from one student to another and the good use of this ability by the student Learning emotional intelligence skills is a necessary requirement for development and urbanization in societies.



Second: the importance of study:

The importance of the current research can be determined as follows:

- 1- Knowing the emotional intelligence of the sample, with the need to provide the supervisors of the dormitory with information that would clarify the nature of emotional intelligence to achieve mental health.
- 2- Enriching our library with this research, which is in fact completely lacking for this type of study, especially emotional intelligence.
- 3- Low emotional intelligence affects the individual's compatibility with society.
- 4- The supervisors of the dormitory, as well as the students, get acquainted with the aspects of social communication and emotional knowledge.
- 5- Differentiating between mental intelligence and emotional intelligence, and advancing the strengthening of emotional intelligence for dormitory students.
- 6- Emotional intelligence is effective in achieving academic success and high achievement.

The researcher believes that attention should be paid to the emotional or emotional aspects of students, as it is the individual's way of adapting in the light of modern challenges.

Knowledge of emotional intelligence leads to the reduction of problems in the dormitory as a result of students' contact with each other and with the supervisors of the dormitory.

Third: Research Objectives:

The current research aims to:

- 1- To identify the level of emotional intelligence among the students of the dormitory at the Technical Institute of Kirkuk.
- 2- To identify the emotional knowledge of the students of the dormitory at the Technical Institute of Kirkuk.
- 3- To identify the ability of the students of the dormitory at the Technical Institute of Kirkuk in social communication.

Fourth: Definitions of the terms:

Emotional intelligence is one of the new psychological terms in the field of psychology, and the following is a description of it through the following definitions:



Baron states it (Bar-on, 2005) as “it is an organized set of non-cognitive skills and competencies in the personal, emotional and social aspects that affect the individual’s ability to deal with environmental demands and pressures, which is an important factor in determining the individual’s ability to succeed in life”(Saeed, 2015)

According to Abu-Hatab (1986), it is "emotional intelligence is represented in a person's ability to read the desires and intentions of others, even if they are not clear, and this intelligence appears in the behavior of clerics, political leaders, teachers, therapists, and parents".

Salovey and Meyer (1990) define it as “it is the ability of a person to know his own feelings and emotions exactly as he spoke, his knowledge of the feelings of others, his ability to control his feelings and his empathy with others, to feel them, and to motivate himself to make smart decisions”(Al-Samadouni, 2007). Abdel Aal Ajwa (2002) studied emotional and emotional intelligence is “an organization of mental, emotional and social abilities, skills and competencies that enable the individual to pay attention and have a good awareness of emotions and understand, process and use emotional information that gives him hope and optimism and that he is able to deal successfully with environmental requirements and pressures”(Hussein & Hussein, 2006).

Procedural Definition: It is the total score obtained by the respondent by answering the paragraphs of the scale used in the current research.

Part Two

The theoretical framework of the research

Components of emotional intelligence:

The use of the term emotional intelligence was in America in (1985) when a student named Bayan B.Bayan in the College of Liberal Education mentioned this term in the title of his doctoral dissertation as it was mentioned in a series of scientific research by Meyer and Salovey. In 1990, he published the first definition of them after their attempt to develop methods for measuring the differences between individuals in emotional ability(Al-Samadouni, 2007).

The psychologist "Howard Garden", from Harvard University in the United States of America, is considered one of the first to propose the idea of multiple intelligence. Absent from the cognitive perspective, he called these abilities emotional or emotional intelligence. He defined it with his colleagues, especially “John Mayer” as “the ability to perceive, appreciate and express emotions accurately and concordantly, it is the ability to understand feelings



or produce feelings that facilitate cognitive activities. It also includes the ability to regulate these emotions in the individual and others.

The psychologist "C.R. Synder" conducted a study on the effect of positive thinking on a sample of students with the same intelligence, and it was found that students who are confident in their abilities set high goals and know how to work stubbornly to achieve them. They are distinguished by their confidence in the future and have the same common personality traits, and they have a belief in their ability. They are able to achieve their goals and have the flexibility to discover alternative solutions to reach their goals. They are not disturbed and less prone to confusion and daily worries.

MacDowell and Ball (1997) identified the components of emotional intelligence as:

1- Self-awareness 2- Emotion management 3- Self-motivation 4- Empathy 5- Dealing with relationships 6- Managing the emotions of others (Al-Khafaf, 2013).

Socialization and childhood experiences play an important role in the development of emotions. Mutual contacts between a mother and her child play a role in the development of empathy. Psychiatrist Daniel Stern of Cornell University, USA, conducted research and studies on frequent contacts between a mother and her child. He found that aspects of emotional life lie in the intimate moments between the mother and her child. The process of harmony that occurs between the mother and her child and constitutes the emotional expectations that the children evoke later at puberty in their personal relationships.

Ethics also has a role and is linked to emotional intelligence. Studies conducted in Germany and America have shown that the people who feel the most emotional intelligence with others are the ones who prefer the moral principles on which they were brought up.

Daniel Goleman explained his postulates about emotional intelligence, which says, "our emotions determine the limits of our capacity" to use our talents and mental abilities, and he shows the elements of emotional intelligence as follows:

1-: Personal Efficiency

It consists of three sub-dimensions:

A- Self-awareness: It means emotional or emotional awareness, which is how the individual knows his emotions and feelings and realizes their effects.



B - Self-regulation: It includes controlling the individual's internal states of self-control and the ability to adapt.

C- Motivation: It expresses the emotional tendencies that drive the individual or facilitate reaching the goal as an achievement motive.

2- Social competence: It consists of two sub-dimensions:

A - Empathy: It means perceiving, feeling and understanding the feelings, needs and interests of others.

B - Social skills: It is the ability and ingenuity in winning over others and urging them to behave in a desirable manner(Bazazo, 2010). Salovy shows in his definition of emotional intelligence and focuses on managing emotions, recognizing the emotions of others, and directing human relations. He considers the art of human relations and mostly a skill in adapting the emotions of others, which are the abilities that underlie leadership and effectiveness in establishing relationships with others(Goleman, 2000).

As for the components of emotional intelligence, according to Robert Baron and Gerald Greenberg, it is evident in the ability to regulate feelings, know the feelings of others, self-motivation to work, resist any frustration, and the ability to form relationships with others(Abu-Al-Nasr, 2008).

Knowing the emotional state of the individual affects their behavior through knowing the individual's emotions, the strengths and weaknesses of the individual, and the sense of self-worth and capabilities. Emotional awareness is linked to self-awareness.

Humans in general do not live in isolation from others, but his existence is linked to others, and the emotional aspect is important and influential in the human personality in general, as the individual's ability to face problems and the ability to solve them. This is affected by his high emotional control, which is reflected in his ability to make the decision related to a solution to the problems(Zughair, 2013).

What the individual possesses of emotional intelligence skills forms the basis for achieving the psychological compatibility of the individual and is also a key factor in the success of the individual, especially in light of the challenges posed by the mechanisms of scientific progress and the technology of the modern era to keep pace with modern civilization.



Third: Previous Studies:

Abdul-Azim Al-Masdar (2007) examined "emotional intelligence and its relationship to some emotional variables among university students". The aim of this study is to investigate the relationship between emotional intelligence and a group of emotional variables that include the point of control, self-esteem and shyness. The sample size was 219 male and female students from the third stage students at the Faculty of Education at Al-Azhar University The most important results of this study:

- 1- "There are statistically significant differences between males and females in emotional intelligence in favor of males".
- 2- "There are statistically significant differences between high emotional intelligence and low emotional intelligence in terms of control and shyness".
- 3- "There are no statistically significant differences between high and low emotional intelligence in estimating self in favor of people with high emotional intelligence".

Mohamed Farrag (2005) studied "emotional intelligence and its relationship to feelings of anger and aggression among university students"

It aimed to investigate the relationship of emotional intelligence and its relationship to feelings of aggression and anger among students of the College of Education.

Basic Education Division at Alexandria University. The size of the study sample consisted of (142) male and female students from the first year of the Basic Education Division, with (65) male and (77) female students.

The search results are as follows:

- 1- "There are statistically significant differences in feelings of anger in favor of those with low emotional intelligence".
- 2- "There are similar differences in aggressive behavior in favor of those with low emotional intelligence, feelings of anger in favor of males, feelings of aggression in favor of males, and emotional intelligence in favor of males"(Bazazo, 2010)

Al-Imam (2002) studied aimed to reveal the relationship between emotional intelligence and each of the different learning styles, some personality dimensions, and different academic specializations. The study yielded the following results:

There is a statistically significant correlation between learning styles and the total degree of emotional intelligence, as it indicated that extraversion is



associated with a weak and non-statistically significant positive relationship with most of the paragraphs of the dimensions of emotional intelligence, which are (emotion management, empathy, emotion regulation, and self-awareness). Yet, it is associated with a statistically significant positive relationship with social communication and the total degree of emotional intelligence. It turns out that neuroticism is also associated with a statistically significant negative relationship with all dimensions of emotional intelligence and its total degree except for the dimensions of self-awareness and empathy, as the relationship is positive, but it is also statistically significant (Al-Imam, 2002).

Part Three

Procedures:

First: Limits and Research Sample:

The research tool was applied to a sample of (190) students from the dormitories of the Technical Institute / Kirkuk, out of (225) residents of the dormitories and from the first and second stages in the second half of the academic year 2017/2018.

Second: the study tool:

In this research, the emotional intelligence scale prepared by Alwan (2011). was used in his research entitled "emotional intelligence and its relationship to social skills and attachment styles among university students in light of the variables of specialization and gender." The emotional intelligence scale developed by the researcher in its final form consists of (41) items (Appendix 1). Ahmed Al-Alwan confirmed the stability of the scale and the validity of the content and the validity of the internal structure by using the method of factor analysis of the scale.

1. Emotional knowledge: It refers to the ability to understand and pay good attention to one's own emotions and feelings, distinguish between them and express them, and be aware of the relationship between feelings, ideas, and events. This dimension represents (9) items.(23 ,22 , 21 ,20 ,19 ,16 ,8 ,3 ,2) :).
2. Emotion regulation: It is the ability to achieve emotional balance or the ability to calm oneself and control emotion negatively or positively in an appropriate manner. This dimension represents (10) items 1,4,5,6,7,17,18,2) (25,35,.



3. Empathy, which means the ability to perceive the emotions of others, unite with them emotionally, the ability to understand the feelings of others and care for them, and sensitivity to their emotions even if they do not disclose them themselves. This dimension represents (13) items ,32 ,31 ,30 ,29 ,15 ,14 ,9) (40 ,39 ,37 ,36 ,34 ,33).

4. Social Communication: It is represented by the individual's ability to positively influence others by realizing and understanding his emotions and feelings, knowing when to lead others and when to follow them, and to behave with them in an appropriate manner so that he does not show the effects of negative emotion such as anger and distress. This dimension represents (9) items, which are 41 ,38 ,28 ,27 ,26 ,13 ,12 ,11 ,10) :).

This research relied on the scale as a whole with its four dimensions to identify the emotional intelligence of the sample, in addition to the statistical analysis of the items of the two dimensions of emotional knowledge and social communication in order to reach the achievement of the research objectives (Alwan, 2011).

Third: Description and procedures for correcting the scale:

The scale consists of (41) items and measures the level of emotional intelligence. Each item of the scale has an answer scale consisting of five choices: always (5) marks, usually (4) marks, sometimes (3) marks, rarely (2) degrees, and never one degree is given, and thus the highest theoretical score that the respondent can obtain is (205) and the lowest is (41). And as follows:

From (3.50 to 5) high

From (2.50 to 3.49) medium

From (1 to 2,49) low (Alwan, 2011).

In the current research, the questionnaires were distributed with (225) questionnaires for each community

The research was retrieved (202) and some of the 12 forms were excluded because the answers were not complete, so that the real sample was (190) students from the dormitory at the Technical Institute/Kirkuk.



Part Four

First: Research results and discussion:

After analyzing the results of the questionnaire submitted to the students and using the arithmetic mean and standard deviation, the results were reached according to Table No. (1) as follows:

Table No. (1) shows the arithmetic means and standard deviations, according to the questionnaire axes

No	Parameter	arithmetic means	standard deviations	level
1	Emotional intelligence (the scale as a whole)	3,43	0,81	medium
2	emotional knowledge	3,20	0,78	medium
3	social media	2,20	0,71	low

The first objective is to identify the level of emotional intelligence among the students of the internal departments at the Technical Institute of Kirkuk. Table No. (1) shows that the arithmetic mean is 3.43, and this indicates that the level of emotional intelligence of the sample is medium.

Despite the efforts made by the administration of the Northern Technical University, through its various programs and directives for students and supervisors. They aim to improve the human and emotional side of students, in addition to improving the educational and scientific aspects, and setting up various training programs of courses for supervisors of the internal departments and lectures for the students of the internal departments by the educational guidance. However, students need to develop emotional intelligence to higher levels than the current level by giving lectures to students that include developing emotional intelligence and developing it in the right way.

Our preparatory and vocational schools from which students graduated and our cultures still focus on academic abilities while ignoring emotional intelligence, which has an important and prominent role in social relations in the internal departments, and this is confirmed by studies that feelings of anger and aggressive behavior are closely linked to low emotional intelligence.

The second objective is to identify the emotional knowledge of the students of the internal departments at the Technical Institute of Kirkuk. It is clear from



Table No. (1) that the arithmetic mean is 3.20, and this indicates that the level of emotional knowledge of the sample members is medium.

We aspire to higher levels of emotional knowledge, as calming oneself, getting rid of negative feelings, and changing moods according to situations requires a high ability of self-awareness, controlling emotions, understanding the feelings of others, and committing to positive thinking. This requires developing emotional knowledge among students to a level higher than the current average level. By giving lectures that include positive thinking and the art of dealing with others. Emotional insight and withdrawal from some situations, such as arguing and ignoring negative emotions, is the basis for emotional intelligence.

The third objective is to identify the ability of the students of the internal departments at the Technical Institute of Kirkuk in social communication, it is clear from Table No. (1) that the arithmetic mean is 2.20, and this indicates that the ability of the respondents to social communication is low.

The American researcher, Daniel Goleman, explained in the subject of the competence of social skills that winning over others and urging them to act in a desirable way, the art of persuasion and listening, the ability to resolve differences, participate and work to achieve common goals and create a team spirit, are things that must be taken into account, and that social communication is associated with many disorders including fear, shyness, withdrawal, introversion, and extroversion are actual. It is necessary to focus on such disorders, and this is consistent with what was stated in the study of Essam and Zaidan, that the extroverted personality is associated with a positive relationship with the dimension of social communication, and since the students have come from different social environments, it is necessary to train the students to accept differences of opinion. Objective dialogue and avoiding the interviewer's embarrassment and hurtful criticism, which makes them feel disturbed and refuses dialogue.

Communication with others reflects the individual's ability to deal with them, the extent of adaptation with them, taking into account their moods and motivation, and social communication. These lead the individual to benefit from all the social parties surrounding him. It is imperative to train students in the internal departments to strengthen communication, cooperation, and the possibility of working in a team.



Second: recommendations and proposals

This study recommends:

- 1- Working to raise the level of university students in emotional intelligence by giving continuous lectures in this field.
- 2- Including sufficient training and practices in the school curricula on how to recognize emotions and distinguish between them, and intensify this, in particular, in students' curricula.
- 3- Paying attention to emotional intelligence and stress coping skills and providing them to students at all educational levels, not only at the university level.
- 4- Conducting a study on emotional intelligence and its relationship to personality traits among male and female students in the internal departments.

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Appendix No. (1)

Emotional intelligence questionnaire for students of the dormitory:

Our dear students, please answer the paragraphs of the questionnaire by putting a tick mark and one of the five choices on the items, without mentioning the name and the academic stage and department only. We thank you for your cooperation with us.

Stage.....department.....



No	Items	always	occasionally	sometimes	rarely	never
1	I enjoy when I accomplish a task.					
2	It is easy for me to express my feelings to others.					
3	I can perceive my sincere feelings.					
4	I can do my work with vigor and high concentration.					
5	I am patient if I do not achieve quick results.					
6	I can succeed under pressure.					
7	I consider myself responsible for my feelings.					
8	I am sensitive to what other people need.					
9	I have the ability to detect the feelings of my friends.					
10	I am a helpful person.					
11	It is difficult for me to talk to strangers.					
12	I have the ability to influence others.					
13	Building friendships is important to me.					
14	I understand the feelings of the people around me well.					
15	I can perceive other people's feelings without them telling me.					
16	I can easily discuss my feelings.					
17	I control my own feelings for my work to be as I want it.					
18	I get angry easily.					
19	I realize that I have tender feelings.					



20	I have the ability to know my positive qualities.					
21	I have a good understanding of emotions.					
22	I have a real understanding of how I feel.					
23	I realize my feelings in dealing with others accurately as they really are.					
24	I can keep my emotions well when I get my work done.					
25	When I decide to complete my work, I start with the obstacles that stand between me and them.					
26	I consider myself trusted by others.					
27	I have the ability to influence others.					
28	I feel good with others.					
29	I compliment others when they deserve it.					
30	I have the ability to tell my friends' emotions from their behaviour.					
31	I am affected by the reactions of others.					
32	I am calm in my dealings with others.					
33	I can feel the pulse of the group and the unspoken feelings.					
34	I have the ability to pay attention to subtle indicators of the other person's feelings.					
35	I can contain feelings of stress that get in the way of my work.					
36	I have the ability to tell if one of my friends is unhappy.					
37	I try to understand my friends by understanding how they see things.					
38	Get angry at embarrassing questions from others.					
39	I have the ability to understand social cues from others.					
40	Enjoy the company of other people.					
41	I can share with others in their conversations.					



THE EFFECT OF STRENGTH EXERCISES CHARACTERIZED BY SPEED IN DEVELOPING THE VALUES OF SOME BIOMECHANICAL VARIABLES TO PERFORM THE OFFENSIVE BLOCKING SKILL FROM POSITION (2) WITH THE VOLLEYBALL PLAYER FOR THE SPECIALIST POSITION

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Abstract

The importance of the research lies in the development of the values of some biomechanical variables by using the speed-distinguishing strength exercises of the offensive repelling skill from Center 2; Because this skill is one of the important skills that need this characteristic to carry out the motor duty; As these exercises increase the efficiency of the muscles to exert greater force to reach maximum strength and maximum speed, the player ensures that the parts of the skill are linked with the least possible decrease in speed and linear momentum as a result of the increase in internal strength. As for the research problem, it was manifested through the researcher's observation of the apparent weakness in the performance of the offensive blocking skill of the specialized player from position 2. The study aimed to identify the differences between the pre and post tests of the experimental research group in the values of some biomechanical variables for the performance of the offensive repelling skill. The research sample consisted of the players of the Specialized School in the district of Souq Al-Shuyoukh in Dhi Qar Governorate, who numbered six players. As for the conclusions, the most important of them is the emergence of a clear development in the level of technical performance of the skill of the offensive blocking wall from center 2 as a result of the development of the values of the biomechanical variables.

Keywords: The power characteristic of speed, Biomechanical variables, Offensive blocking, The specialized player and Exercises.

تأثير تدريبات القوة المميزة بالسرعة في تطوير قيم بعض المتغيرات البيوميكانيكية لأداء مهارة حائط الصّد
(position) الهجومي من مركز (2) بالكرة الطائرة للاعب التخصصي

م. نصر الله راضي مشجل



مستخلص البحث

تكمن أهمية البحث في تطوير قيم بعض المتغيرات البيوميكانيكية باستخدام تدريبات القوة المميزة بالسرعة لمهارة حائط الصدّ الهجومي من مركز 2؛ لأن هذه المهارة من المهارات المهمة التي تحتاج الى هذه الصفة لتنفيذ الواجب الحركي؛ إذ تعمل هذه التدريبات على زيادة كفاءة العضلات لبذل قوة اكبر للوصول لاقصى قوة و اقصى سرعة، فيضمن اللاعب ربط أجزاء المهارة بأقل تناقص ممكن بالسرعة والزخم الخطي نتيجة لزيادة القوة الداخلية. أما مشكلة البحث فقد تجلت من خلال ملاحظة الباحث للضعف الواضح في أداء مهارة حائط الصدّ الهجومي للاعب التخصّصي من مركز 2. وهدفت الدراسة للتعرف على الفروق بين الاختبارين القبلي والبعدي لمجموعة البحث التجريبية في قيم بعض المتغيرات البيوميكانيكية لأداء مهارة حائط الصدّ الهجومي. وتكونت عينة البحث من لاعبي المدرسة التخصّصية في قضاء سوق الشيوخ في محافظة ذي قار، والبالغ عددهم ستة لاعبين. أما الأستنتاجات فأهمها ظهور تطور واضح في مستوى الأداء الفني لمهارة حائط الصدّ الهجومي من مركز 2 نتيجة لتطور قيم المتغيرات البيوميكانيكية. الكلمات المفتاحية :- لقوة المميزة بالسرعة، المتغيرات البيوميكانيكية، الصد الهجومي، اللاعب التخصّصي والتدريبات

1-1 المقدمة واهمية البحث.

تلعب مهارة حائط الصدّ الهجومي في الكرة الطائرة دوراً كبيراً وفعالاً في نتيجة الشوط والمباراة. حيث تتطلب هذه المهارة الاهتمام في جزئيات كل قسم من اقسامها التحضيرية والرئيسية والختامية، وهذا يستوجب الارتقاء بالمتغيرات البيوميكانيكية التي تُشكّل الركن الرئيسي لهذه المهارة، والتي تتطلب بناء برامج تدريبية صحيحة تعتمد على التدريبات الحديثة والأسلوب العلمي التي من شأنها تطوير الصفات البدنية ذات الدور الكبير في قيم متغيرات البيوميكانيكية وبالأخص القوة المميزة بالسرعة للرجلين والذراعين والقدرة الانفجارية التي يحتاجها لاعب الصدّ خلال مرحلة الدفع.

ولهذا تُعدّ تدريبات القوة المميزة بالسرعة من الأساليب التدريبية الحديثة التي لها مردود إيجابي للاعب الكرة الطائرة؛ إذ يجب ان يمتلك اللاعب القدرة على الاستجابة والتكيف لمثل هذا النوع من التدريبات التي تكسب اللاعبين القدرة على أداء مهارة حائط الهجومي بالشكل المطلوب لا سيما إذا ما تم اعتماد هذا الاسلوب بشكل ميكانيكي صحيح.

وبناءً ما تقدّم تكمن أهمية البحث في إخضاع عينة البحث لتدريبات القوة المميزة بالسرعة من أجل التحقق من مدى ملائمتها وقدرتها على اكساب اللاعبين قدرات بدنية تساهم في تطوير قيم المتغيرات البيوميكانيكية مما يؤدي الى الارتقاء بالمستوى المهاري مما يعود عليهم بالفائدة.

1-2 مشكلة البحث:

يُشكّل التدريب الرياضي أحد الاسس العلمية التي تزيد من تطور الاداء المهاري، إذا تم وضعه على شكل تدريبات تُحاكي التطور الحاصل بمجال التدريب الرياضي الحديث خصوصاً إذا ما بُني وفق المتغيرات البيوميكانيكية التي تُشكّل العمود الفقري للمهارة الرياضية في شتى الالعاب.

ومن إطلاع الباحث على الوحدات التدريبية والمباريات الخاصة بلاعب المدرسة التخصّصية للكرة الطائرة، وجدّ ضعفاً في أداء حائط الصدّ الهجومي من مركز 2 مقارنةً بالمركز 4 للاعب التخصّصي؛ ولعل ذلك يعود الى ضعف القوة المميزة بالسرعة للرجل اليسار باعتبار ان الرجل اليمين هي الرجل القائدة؛ لذلك ارتأت الباحثة دراسة هذه المشكلة وفق الشروط البيوميكانيكية للارتقاء بأداء مهارة حائط الصدّ الهجومي بالمركز 2 للاعبين.



2-1 اهداف البحث.

1- معرفة الفروق في قيم بعض المتغيرات البيوميكانيكية على مجموعة البحث التجريبية بين الاختبارين القبلي والبعدى لدى اللاعبين في مهارة حائط الصدد الهجومي من مركز (2) بالكرة الطائرة.

4-1 فروض البحث:

1- وجود فروق ذات دلالة معنوية لقيم بعض المتغيرات البيوميكانيكية لمجموعة البحث التجريبية بين الاختبارين القبلي والبعدى ولصالح الاختبار البعدى لدى اللاعبين في مهارة حائط الصدد الهجومي من مركز 2 بالكرة الطائرة.

5-1 مجالات البحث:

1-5-1 المجال البشري: لاعبو المدرسة التخصصية للكرة الطائرة في سوق الشيوخ - محافظة ذي قار .

2-5-1 المجال الزماني: 2022/6/20 – 2022/10/5.

3-5-1 المجال المكاني: القاعة الرياضية المغلقة في قضاء سوق الشيوخ.

1-2 منهج البحث:

استخدم الباحث المنهج التجريبي بأسلوب المجموعة الواحدة ذات الاختبارين القبلي والبعدى.

2-2 مجتمع البحث وعينته:

اشتمل مجتمع البحث على لاعبي المدرسة التخصصية للكرة الطائرة في قضاء سوق الشيوخ محافظة ذي قار، اللاعب التخصصي في المركز 3 والبالغ عددهم ستة لاعبين. وتم اختيار عينة البحث بطريقة الحصر والبالغ عددهم ستة لاعبين.

3-2 تجانس العينة وتكافؤها :

1-3-2 تجانس العينة:

قام الباحث ببعض الإجراءات لضبط المتغيرات بهدف التحقق من تجانس العينة -على الرغم من ان العينة المختارة هي من مرحلة عمرية متقاربة- وتم استخدام الوسائل الاحصائية عن طريق الوسط الحسابي والانحراف المعياري ومعامل الاختلاف للقياسات المورفولوجية لمعرفة واقع الاختلاف من عدمه والجدول (1) يوضح ذلك. وثبت ان قيمة معامل الالتواء اقل من $1 \pm$:

جدول (1)

يبين القياسات والاختبارات وقيم الأوساط الحسابية والانحرافات المعيارية والخطأ المعياري ومعامل الالتواء

لعينة البحث

ت	المتغيرات	وحدة القياس	الوسط الحسابي	الانحراف المعياري	الخطأ المعياري	معامل الالتواء
1	الطول	سم	180,43	5,63	0,637	0,87
2	طول الجذع	سم	45,76	1,48	0,637	0,876
3	طول الذراع	سم	81,61	1,32	0,637	0,176
4	طول الرجل	سم	108,54	1,76	0,637	0,33
5	الكتلة	كغم	68	4,64	0,637	0,49
6	العمر الزمني	سنة	16,31	0,89	0,637	0,36
7	العمر التدريبي	سنة	3,89	0,39	0,637	0,21



2-4 الوسائل والادوات المُستخدمة :

وسائل جَمع المَعلومات : ✓

○ المَصادرُ العَربيةُ والاجنبيةُ .

○ المُقابلاتُ الشَخصيةُ^{1*}.

○ المَلاحظةُ والتَحليلُ.

○ التَجرِبُ.

○ البرمجياتُ والتطبيقاتُ المُستخدمةُ في الكُمبيوترِ للتَحليلِ الحَركي.

○ الاختِبَارُ والقياسُ .

✓ الادواتُ والاجهزةُ المُستخدمةُ:

○ (يابانية الصُنع ذات بَسرعة تَردد 300 صورة / ثانية. Sony آلةُ تَصورٍ فيديوية من نَوع)

○ (يابانية الصُنع ذات بَسرعة تَردد 25 صورة / ثانية. Sony آلةُ تَصورٍ فيديوية من نَوع)

○ (Force Platform. مَنصةُ لقياسِ القُوة سويدية الصُنع)

○ (7) ايرلندي الصُنع. Dell Ci. جَهازُ حاسوبِ لاب توب نوع)

○ Casio. سَاعةُ تَوقيتِ الكَترونية نَوع)

2-5 التجربة الاستطلاعية:

أجريت التجربة الاستطلاعية يوم 2022/ 7/15 على ثلاثة لاعبين من غير عينة البحث، وتم تصويرهم للتعرف على مكان منصة قياس القوة ومكان وأبعاد الكاميرات وارتفاعها ووضوح الصورة، والزمن اللازم لكل تصوير والوقت المناسب لإجراء التصوير، أضف الى ذلك التعرف على:

✓ ارتفاع الكاميرات .

✓ تحديّد الصُعوباتِ والمُعوقاتِ التي سَتظهرُ في اثناءِ تَنفيذِ الاختباراتِ وسيرَها.

✓ معرفةُ الوقتِ المُناسبِ لاجراءِ الاختباراتِ، وكَم يَستغرقُ هذا الاجراءِ.

✓ إمكانيةُ التَصورِ وتحليلُ النَتائِجِ الخاصةِ بالمُتغيراتِ المِيكانيكيةِ.

✓ قابليةُ أفرادِ العَينةِ على تَنفيذِ الإختباراتِ ومدى مُلائمتِها لَهم.

✓ معرفةُ الاجهزةُ والادواتِ اللَازمةِ لَتَفيذِ التَجرِبَةِ والاختباراتِ.

✓ إمكانيةُ قياسِ القُوةِ بالجهازِ المُستخدمِ.

✓ معرفةُ الزمنِ الكُلّي الذي تَطلبُهُ التَجرِبَةُ.

✓ تُع ريفُ فريقِ العَملِ بطَبيعةِ التَجرِبَةِ ومُتطلباتها.

2-5 الاختِبَارُ والقياسُ القَبلي:



أجريت الاختبارات والقياس القبلي لمجموعة البحث في صباح يومي (20-21/7/2022) في القاعة المغلقة للألعاب الرياضية في قضاء سوق الشيوخ محافظة ذي قار، وقد أُخذ في اليوم الأول أخذ قياسات الأطوال والكتلة والعمر التدريبي، وأجري اختبار حائط الصدّ الهجومي في اليوم الثاني. وتم تصوير التجربة بكامرتين جانبيه، ووضعت منصة القوة في مكانها المخصص خلف مركز (2) - وهي إحدى مناطق حائط الصد - وقد ثبتت الباحث الظروف المتعلقة بالاختبار من حيث الزمان والمكان والأدوات المستخدمة وطريقة التنفيذ وفريق العمل المساعد من أجل العمل على توفيرها في الاختبار البعدي.

2-6 تدريبات القوة المميزة بالسرعة التي طبقتها مجموعة البحث:

تمرينات مختلفة لتطوير القوة اللحظية المسببة للتعبيل والقوة الداخلية للعضلات في أقصى امتطاط استُخدمت لها، ويعد اتجاهها تدريبياً جديداً لأنه يركز على استخدام الانقباض العضلي الاكسوتوني (المختلط) أيزوتوني - أيزومتري - أيزوتوني على وفق الحدود المسموح بها تشريحياً وفضياً؛ وبالتالي زيادة سرعة الانقباضات العضلية من خلال تثبيت الشد على العضلة مع التغيير واختلاف زوايا العمل العضلي أثناء أداء التمارين العضلية باستخدام الاجهزة والأدوات المساعدة. وقد أعطيت الراحة بين التكرار وفقاً لزمان الجهد الى الراحة. واستخدم الباحث طريقة التدريب المتكرر. وكانت مدة التدريبات ضمن مدة الإعداد الخاص وبثمانية أسابيع، وبواقع ثلاثة وحدات تدريبية في الاسبوع، زمن الوحدة الواحدة يتراوح بين (35 - 45 دقيقة). وادناه خلاصة لكيفية استخدام الشدة للتدريبات المختلفة :

2-7 الاختبار والقياس البعدي:

أجري الاختبار والقياس البعدي لعينة البحث في صباح يوم (20/9/2022) في القاعة المغلقة للألعاب الرياضية في القاعة الرياضية المغلقة في قضاء سوق الشيوخ. وحرص الباحث على أن تكون الظروف مشابهة للاختبار القبلي وإجراءاته بعد الانتهاء من مدة تطبيق تدريبات القوة المميزة بالسرعة.

2-8 الوسائل الإحصائية:

(الإحصائي لمعالجة النتائج SPSS استخدم الباحث برنامج)

ع

2-

رض النتائج ومناقشتها وتحليلها :

3-1 عرض ومناقشة نتائج الفروق في قيم بعض المتغيرات البيوميكانيكية لمهارة حائط الصد الهجومي للاختبار القبلي والبعدي لمجموعة البحث :

جدول (3)

(المحسوبة لقيم بعض المتغيرات البيوميكانيكية T تبين قيم الأوساط الحسابية والانحرافات المعيارية وقيمة)
لمهارة حائط الصد الهجومى للاختبار القبلي والبعدى لمجموعة البحث

ت	المعالجات المتغيرات	وحدة القياس	الاختبار القبلي		الاختبار البعدى		قيمة T المحسوبة	مستوى الدلالة 0.05	النتيجة
			±ع	س	±ع	س			
1	أقصى قوة	نت	1098.43	134.87	1375.73	102.78	12.734	0.000	معنوي
	التماس	زمن الوصول	0.024	0.001	0.012	0.001	12.765	0.010	معنوي
2	أقصى قوة	نت	799.43	44.54	1089.41	54.42	9.234	0.000	معنوي
	الامتصاص	زمن الوصول	0.041	0.001	0.016	0.001	8.432	0.000	معنوي
3	أقصى قوة	نت	1998.54	67.42	2376.23	66.83	14.753	0.000	معنوي
	الدفع	زمن الوصول	0.043	0.015	0.019	0.001	7.342	0.001	معنوي

$0.05 \leq *$ عند مستوى دلالة

(المحسوبة دالة تحت مستوى خط حقيقي قدرة (05.0)، وهذا يعني الفروق معنوية ولصالح T يُلاحظ إن قيمة)
الاختبار البعدى. ويعزو الباحث هذا التطور نتيجة لتأثير تدريبات القوة المميزة بالسرعة التي طبقتها مجموعة
البحث وفق الاسس العلمية المرتبطة بالبيوميكانيك، والتي ساهمت في تطور القوة الداخلية التي أثرت في زيادة
السرعة الزاوية لأجزاء الجسم؛ وبالتالي تحقيق قيم عالية من القوة خلال لحظات الاداء سواء في الاقتراب ام في
الدفع. أضف الى ذلك تحقيق التدريبات المستخدمة الهدف منها، الا وهي تطوير القوى الداخلية وما يرتبط بها من
بدل قوة، والاقبال من زمن هذا البدل، أضف الى ذلك إحداث حالة من التكيف بالقوى العاملة لأجزاء الجسم
المساهمة بالأداء للاعبى حائط الصد الهجومى من مركز (2) لمجموعة البحث.

واتضح ذلك من خلال التطور في قيم أقصى قوة التماس وقوة الامتصاص، ودورهما الايجابي في قيم أقصى
قوة للدفع النهائي؛ لان القسم التحضيرى يخدم القسم الرئيسى وهو يعمل على تهيئة القوة اللازمة للأداء الحركى،
أذ يؤكد ذلك طلحة حسين حسام الدين بقوله : أن القسم التحضيرى يرتبط ارتباطاً مباشراً بهدف المهارة (3:400).
أما الزمن المتحقق فهو يدل على مدى تأثير التدريبات على تطوير عزم القوة وزيادتها خلال المرحلة التحضيرية
واندفاع اللاعب باتجاه الكرة.

أما متغير زمن القوة فيرى الباحث إنه من المتغيرات الميكانيكية التي تلعب دوراً كبيراً في متغيرات القوة
والسرعة، ويجب التركيز على تحقيق متطلباته وفقاً للأداء الفنى الأمثل. وبهذا فإنه يمكن أن يكون هناك أهمية لهذا
المتغير في تحقيق السرعة الخطية. ومن جهة اخرى يجب ان يراعى تدريب عزم القوة لنفس العضلة وزمن تقلصها
مركزياً كناتج نهائي للقدرة للقيام بالحركة من خلال التقلص المركزى وإمكانية قياس القدرة العضلية المؤدية الى
تحقيق النتيجة النهائية لهدف الاداء (قدرة خارجية)، وهذه القدرة تُشكّل القياس الاخر لقياس مقدار الكفاءة العضلية.
وهذا التناسق والترابط الجيد بين القدرة الداخلية والخارجية ينعكس على امتلاك الجسم الزخم الخطى أو الزاوي.

2-3 عرضٌ ومناقشةٌ نتائج الفروق في قيم بعض المتغيرات البيوكيميائية للضرب الساجق للاختبار القبلي والبعدي لمجموعة البحث :

الجدول (2)

(المحسوبة لقيم بعض المتغيرات البيوكيميائية T يُبين قيم الأوساط الحسابية والانحرافات المعيارية وقيمة) للاختبارات القبلي والبعدي لمجموعة البحث

ت	المعالجات المتغيرات	وحدة القياس	الاختبار القبلي		الاختبار البعدي		قيمة T المحسوبة	مستوى الدلالة 0.05	النتيجة
			س	ع	س	ع			
1	سرعة الاقتراب	م/ثا	3.99	0.01	4.564	0.02	5.764	0.001	معنوي
2	زاوية النهوض	د	79	1.58	89	0.065	9.654	0.000	معنوي
3	سرعة الطيران	م/ثا	2.42	0.03	2.98	0.42	5.564	0.000	معنوي
4	أقصى ارتفاع م.ك.ج	م	1.29	0.03	1.40	0.02	10.453	0.000	معنوي

$0.05 \leq *$ عند مستوى دلالة

المحسوبة دالة تحت مستوى خط حقيقي قدرة (0.05). وهذا يعني ان الفروق معنوية (T) يلاحظ ان قيمة ولصالح الاختبار البعدي. ويعزو الباحث هذا التطور الى طبيعة التدريبات التي طبقتها مجموعة البحث ودورها في تنمية القوة العضلية المسببة للتعبيل (القوة المميزة بالسرعة). فقد ساهمت في زيادة العبء على العضوم العضلية، وبالتالي رفعت من قيم القوة اللحظية خلال مراحل الاداء وبأقل تماس للقدمين مع الارض وفقاً للأداء المهاري. مما سهل تطبيقها وتكرارها بصورة صحيحة خلال مرحلة الاقتراب بالشكل الامثل، الذي جعل هذه الخطوات إيقاعية مترابطة فيما بينها، وصولاً الى تحقيق أفضل سرعة للاقتراب التي تُعبر عن السرعة النهائية التي يصل اليها اللاعب قبل لحظة النهوض. وكلما زادت سرعة الاقتراب زادت سرعة الانطلاق. والتي يعزو الباحث تطورها الى استخدام تدريبات القوة المميزة بالسرعة التي ساعدت على استخدام القدرة العضلية الكامنة. وذلك من خلال إستنارة الياف عضلية كثيرة في أن واحد. وهذا يشير الى نجاح الهدف الرئيسي من تدريبات القوة في زيادة قوة هذه العضوم للحصول على أعلى سرعة انطلاق ممكنة وزيادة زخم الجسم. وكلما كانت قيمة التغير في الزخم موجبة، فان ذلك يعني ان عزم دفع القوة كبير، وبالتالي زيادة قيم السرعة العمودية للجسم لحظة انطلاقه بزوايا دفع مثالية عما كانت عليه هذه الزاوية في الاختبار القبلي. كما يعزو الباحث نسبة تطورها الى استخدام تدريبات القوة المميزة بالسرعة المساهمة في تطوير القوة الداخلية من خلال تركيز اللاعب فيها على المنطقة الامامية لقدم الرجل الدافعة والتأكيد عليها خلال التدريبات، مما ساهم ذلك التوافق والانسيابية في جعل تطبيق هذا الارتكاز بشكل آلي عند عينة البحث ، الامر الذي ساعد اللاعبين على اتخاذ زوايا دفع مناسبة تعطي أقل قيم لعزم قصور الجسم الذاتي لوضع الجسم ككل وابتعاد مركز كتلة الجسم عن خط الجذب الارضي لحظتي النهيؤ والدفع، فزيادة زاوية الدفع للاعب الضارب هي التي تحدد المسار الصحيح لمركز ثقل الجسم بعد مرحلة النهوض والتي تعتبر أحد أهم المتغيرات في تحديد ارتفاع مركز كتلة الجسم لحظة ضرب الكرة ما لم تتداخل أي قوى خارجية

3- الاستنتاجات والتوصيات :

1-4 الأستنتاجات :

1. ظهور تطور واضح في مستوى الأداء الفني لمهارة حائط الصدّ الهجومي نتيجة لتطور القوة الداخلية باستخدام تدريبات القوة المميزة بالسرعة.



2. إن تطوّر الاوضاع الميكانيكية ماهو إلا محصلة لتطور القوة الداخلية المتمثلة بقوة انتاج العزم وقوة الاربطة والمفاصل. وهذا يعود لتدريبات القوة المميزة بالسرعة .
3. ان لتدريبات القوة المميزة بالسرعة أثر مهم وإيجابي في تعديل وتوجيه زاوية الدفع، نتيجة لتطوير عزوم القوة للعضلات المثبة وفقاً لزوايا الاداء المطلقة خصوصاً عند لحظة الأرتقاء.
4. مساهمة التدريبات المستخدمة في جعل أفراد عينة البحث يحققون مستوى عالياً من القوة وبزمن قصير جداً في الاختبار البعدي.

2-4 التوصيات :

1. التأكيد على إجراء تدريبات القوة المميزة بالسرعة خصوصاً للعضلات العاملة على مفاصل الوركين والركبتين والكاحلين لأهميتها في تحقيق سرعة اقتراب الانطلاق ووضع مركز كتلة الجسم في أعلى ارتفاع ممكن خلال الاداء.
2. إن إجراء تدريبات القوة المميزة بالسرعة على وفق الاداء المهاري واستخدام التغذية الراجعة يمكن أن يساهم في تحقيق التكامل بالاداء وزيادة كفاءة العضلات وتكيفها مع الهدف من الحركة المطلوبة.

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CONSTRUCTING AND STANDARDIZING A MEASURE OF THINKING STYLES ACCORDING TO THE NEETHLING MODEL FOR VOLLEYBALL COACHES REGISTERED IN THE IRAQI CENTRAL FEDERATION

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Abstract

importance of the research lies in identifying the level of thinking with its different methods among volleyball coaches. To achieve the best achievement and high efficiency. It is important for the trainers to recognize the patterns of thinking necessary for them according to the neurons controlling them and guiding their behaviour. To be able to deal with the players in a way that achieves better learning for them. And since the trainers deal with heterogeneous human spectra with individual differences and different psychological tendencies and tendencies; There was a need to prepare a generation of coaches with creative and positive thinking and influencing the hearts of the players. Hence, the research problem arises, that is, the difficulties and problems that volleyball coaches face in order to achieve the goals set for the players, which will reflect positively on their creativity in performing the training units in a way that rises to the level of creativity and achievement. The research aims to identify the methods of thinking and build a scale for it according to the Neethling model for volleyball coaches registered in the Iraqi Central Federation. The descriptive survey method was the method that the researcher followed in his study. Due to its suitability to the nature of the study.

Keywords:- Thinking, Methods, The model, Union and Behavior

بناءً وتقنين مقياس لإساليب التفكير وفقاً لنموذج نيثلنج لمدربي الكرة الطائرة المسجلين في الإتحاد المركزي
العراقي
م . علي شمخي جبار
ملخص البحث



تكمُن أهمية البحث في التعرف على مُستوى التفكير بأساليبِهِ المُختلفة لدى مُدربي الكُرة الطائِرة؛ لتحقيق أفضل إنجاز وبكفاءة عالية. فمن المهم ان يتعرف المدربين على أنماط التفكير الضرورية لهم وفقاً لخلايا المخ العصبية المسيطرة عليهم والموجهة لسلوكهم؛ ليتمكنوا من التعامل مع اللاعبين بشكل يحقق لهم تعلم أفضل. ولما كان المدربون يتعاملون مع اطياف بشرية غير متجانسة وذات فروق فردية واتجاهات وميول نفسية متباينة؛ دعت الحاجة الى إعداد جيل من المُدربين ذوي تفكيرٍ إبداعي وإيجابي ومؤثر في نفوس اللاعبين. ومن هنا تبرز مشكلة البحث أيّ فيما يعترض طريق مُدربي الكُرة الطائِرة من صعوبات ومشكلات لتحقيق الاهداف المرسومة للاعبين، والتي ستنعكس بشكل إيجابي على ابداعهم في أداء الوحدات التدريبية بطريقة ترتقي الى مستوى الابداع وتحقيق الإنجاز. ويهدف البحث الى التعرف على أساليب التفكير وبناء مقياس لها في الإتحاد المركزي العراقي . وكان المنهج الوصفي المسجلين وفقاً لنموذج نيثلنج لمُدربي الكُرة الطائِرة بالأسلوب المسحي هو المنهج الذي أتبعه الباحث في دراسته؛ نظراً لملائمته لطبيعة الدراسة. الكلمات المفتاحية :- التفكير ، الأساليب، النموذج، الاتحاد والسلوك

1-التعريف بالبحث

1-1 المقدمة واهمية البحث

يتميز البحث العلمي في المجال الرياضي بالإضافة العلمية الجديدة التي تكشف لنا عن نقاط القوة والضعف، وتعالج لنا الكثير من المشكلات الرياضية والنفسية؛ وذلك لمواكبة التقدم العلمي الذي يسير بخطوات واسعة الى الامام في شتى المجالات العلمية للوصول لأعلى المستويات الرياضية. ولما كان التفكير بمختلف أساليبه، يرتبط ارتباطاً معنوياً وثيقاً بالقيم أو بالخبرات ظاهراً كان أم غامضاً؛ تطلب الوصول اليه تأملاً وإمعاناً للنظر في مكونات الحدث أو الموقف الذي يمرّ به المُدرب، فهو قائمٌ على الاستكشاف والتجربة. وعادةً ما يتم التفكير عندما يكون هناك غموض في جانب ما يتطلب تحديد ما يجب عمله، لأن النشاطات التي يقوم بها الدماغ عند التفكير هي نشاطات غير مرئية وغير ملموسة . كما تجدر الإشارة هنا الى إن مُدربي الكُرة الطائِرة خصوصاً، عليهم التحلي بدرجة عالية من الفهم والإدراك للمواقف؛ لزيادة خبرتهم في استثمار نواحي التفكير، واتخاذ القرار المناسب، لأن تعاملهم لا يقتصر على جوانب المعرفة فقط، وانما يتعدى ذلك الى السلوك أو الأداء الحركي أثناء عملية التفكير. وتحتل أساليب التفكير المبنية على نتائج الدراسات الخاصة بوظائف نصفي الدماغ، حيزاً كبيراً في حقل الدراسات التربوية والنفسية، وقد لفتت أنظار العديد من الباحثين والدارسين لدراستها وإعداد المقاييس المناسبة لها. ولما كان العقل البشري هو العضو المميز الذي كرم الله سبحانه وتعالى به الإنسان، والذي يقوم بعدة عمليات معقدة من إدراك وفهم وتحليل وتفكير وتدبر وربط وتخيل وغيرها من القدرات التي يجب على الإنسان اكتشافها وتوظيفها، وبناءً عليه نبعت أهمية البحث عبر



التعرف على مستوى التفكير بأساليبه المختلفة لدى مُدربي الكُرة الطائِرة، والمبنيّة على الخلايا العصبية المسيطرة عليهم والموجّهة لسلوكهم، حتى يتعاملوا مع اللاعبين بشكل يحقق لهم أفضل تعلم .

1-2 مشكلة البحث

تعد أساليب التفكير الخاصة بمُدربي الكرة الطائرة أهم وسيلة لتوظيف القدرات واكتساب المعارف، فضلاً عن ترتيب وتنظيم الأفكار التي تلائم المواقف التدريبية المتعددة التي يلاحظونها خلال تنفيذ مفردات وتفاصيل المنهج. ولما كان لكل مدرب مستوى تفكير خاص به، وقيمة مهنية تميزه عن زملائه وتعكس سماته الشخصية والاجتماعية والدينية والجمالية، إضافة الى خبرة الباحث واطلاعه واتصاله المستمر بمُدربي الكرة الطائرة؛ وجد أن جزء من أولئك المدربين -وعن عدم إدراك منهم- يغفلون عن توظيف أساليب تفكير تصب في تكوين الإبداع، الامر الذي قد يتسبب في تقليل عمليات الاتصال والاندماج والتأثير والتأثر بأقرانه من المدربين. وبناءً عليه برزت مشكلة البحث فقد اصبح إعداد جيل من المُدربين ذوي تفكير ابداعي وإيجابي ومؤثر في نفوس اللاعبين ضرورة ملحة؛ يجعل من ضبطها والسيطرة عليها امراً لا يخلو من الصعوبة؛ اذ ان هناك الكثير من الصعوبات والمشكلات التي تعترض طريق مُدربي الكُرة الطائِرة لتحقيق الاهداف المرسومة للاعبين الامر الذي سينعكس إيجاباً على أبداعهم وحرصهم في أداء الوحدات التدريبية بطريقة ترتقي إلى مستوى الابداع وتحقيق الإنجاز.

1-3 اهداف البحث

1. بناءً مقياس أساليب التفكير وفقاً لنموذج نيثلنج لمُدربي الكُرة الطائِرة المُسجّلين في الأتحاد المركزي العراقي.
2. معرفة أساليب التفكير وفقاً لنموذج نيثلنج لمُدربي الكُرة الطائِرة المُسجّلين في الإتحاد المركزي العراقي.
3. معرفة المستويات المعيارية لأساليب التفكير وفقاً لنموذج نيثلنج لمُدربي الكُرة الطائِرة المُسجّلين في الإتحاد المركزي العراقي.

1-4 مجالات البحث

- 1- المجال البشري : مُدربي الكُرة الطائِرة المُسجّلين في الإتحاد المركزي العراقي.
- 2- المجال الزماني : 2022 \ 9 \ 17 - 2022 \ 2 \ 3
- 3- المجال المكاني : مقرات الأندية والقاعات الرياضية التي تُقام عليها مُنافسات الدوري العراقي الممتاز بالكرة الطائرة للموسم الرياضي 2021-2022.

3- مَنهَجُ البَحْثِ وإِجْرَاءُئُهُ المِيدَانِيَّةِ:

1-3 مَنهَجُ البَحْثِ:

اعتمد البَاحِثُ المَنهَجَ الوَصْفِيَّ بالإسْلُوبِ المَسْجِي نَظراً لِملائمَتِهِ لِطَبِيعَةِ الدِرَاسَةِ.

3- 2 مُجْتَمَعُ البَحْثِ وَعَيِّنَتُهُ:

بلغ مجتمَعُ البَحْثِ (196) مُدْرِياً من المُدْرِين المُسْجَلين رَسْمِيّاً في كَشُوفَاتِ الإِتِّحَادِ المَرْكَزِيِّ لِلكَرَةِ الطَّائِرَةِ، وقد تمَّ اخْتِيَارُ العَيِّنَةِ بِطَرِيقَةِ الحَصْرِ الشَّامِلِ وَكَانَتْ نَسَبَتُهُم المِئْوِيَّةُ (100%) وقد وِزَعَتْ العَيِّنَةُ من أَجْلِ بِنَاءِ مَقْيَاسٍ وَتَصْمِيمِ (أَسَالِيْبِ التَّفْكِيرِ وَفَقاً لِتَمُودِجِ نِيثَلِنِج) كَمَا يَأْتِي:

1 - عَيِّنَةُ التَّطْبِيقِ الأُولَى (التَّجْرِبَةُ الاسْتِطْلَاعِيَّةُ): وَتَكُونُ من (16) مُدْرِياً. وَبَلَّغَتْ نَسَبَتُهُم المِئْوِيَّةُ (8,16)% .

2 - عَيِّنَةُ البِنَاءِ: وَتَكُونُ من (110) مُدْرِياً. وَبَلَّغَتْ نَسَبَتُهُم المِئْوِيَّةُ (56,12)% .

3 - عَيِّنَةُ التَّطْبِيقِ: وَتَكُونُ من (70) مُدْرِياً. وَبَلَّغَتْ نَسَبَتُهُم المِئْوِيَّةُ (35,71)% .

3 - 3 أَدَوَاتُ البَحْثِ:

3-3-1 وَسَائِلُ جَمْعِ المَعْلُومَاتِ:

1- المَصَادِرُ العَرَبِيَّةُ وَالأَجْنِبِيَّةُ -

2- شَبَكَةُ المَعْلُومَاتِ العَنَكَبُوتِيَّةِ -

3- الدِرَاسَاتُ وَالبُحُوثُ السَّابِقَةُ.

4- اسْتِمَارَةُ الاسْتِيبَانِ.

3-3-2 وَسَائِلُ جَمْعِ البَيِّنَاتِ:

1- المُقَابَلَاتُ الشَّخْصِيَّةُ .

2- المَقْيَاسُ .

3- اسْتِمَارَةُ التَّسْجِيلِ .

3-3-3 وَسَائِلُ تَحْلِيلِ البَيِّنَاتِ :

1- الوَسَائِلُ الإِحْصَائِيَّةُ .

2- بَرْمَجِيَّاتُ الحَاسِبَةِ الإِلِكْتُرُونِيَّةِ وَاليَدَوِيَّةِ.

3-3-4 أَدَوَاتُ البَحْثِ المُسَاعِدَةِ :

● جِهَازُ حَاسُوبِ (Hp).

● وَرَقٌ أَبْيَضٌ.

- أقلامٍ رصاصٍ.
- حاسبةٌ يدويّة نوع Casio.

3-4 إجراءاتُ بناءٍ وتَصميمٍ مقياسِ أساليبِ التّفكيرِ وفقاً لنموذجِ نيثلنج

3-4-1 تحديد صلاحية المقياس:

التّفكيرِ التي تميّزُ بها. وكشَفَ المقياسُ عن (5) أساليبٍ مُختلفةٍ من

وقد عَرَضَ البَاحِثُ المقياسَ على مَجموعَةٍ من الخُبراءِ المُختصّين بمجالِ عِلْمِ النّفسِ الرّياضي وعِلْمِ النّفسِ الاجتماعي والادارة الرياضية والبالغ عددهم (13) خبيراً؛ للكشفِ عن مدى صلاحية المقياسِ المُستخدمِ في قياسِ التّفكيرِ وفقاً لنموذجِ نيثلنج لمُدربي الكُرّة الطائِرة. وبعد إطلاعهم عليه أبدوا رأيهم بصلاحيته ومطابقتها أساليبِ لأفرادِ العيّنة ومُستوياتهم. وحَصَلَ البَاحِثُ على نسبةٍ اتفاقٍ جيدةٍ لأرائهم. والجدولُ رقم (1) يوضح ذلك:

جدول رقم (1)

يُبينُ درجةً كآي المحسوبة لإجابات الخُبراءِ على مقياسِ أساليبِ التّفكيرِ وفقاً لنموذجِ نيثلنج

ت	عددُ الخُبراءِ	المُوافقون	غيرُ المُوافقين	كا2	Sig	الدلالة
1	13	13	0	13	0,000	معنوي

3-4-1-1 إعدادُ الصيغةِ الأولى لفقراتِ مقياسِ (أساليبِ التّفكيرِ وفقاً لنموذجِ نيثلنج) لمُدربي الكُرّة الطائِرة: تعد عملية إعداد فقرات المقياس من أهم الخطوات، فهي تتطلب توافر شروط معينة لدى مصمم المقياس والاختبار.

بعدها يتم تحديد عدد الفقرات بصيغتها الأولى لمقياس أساليب التفكير وفقاً لنموذج نيثلنج: *

وقامَ البَاحِثُ بصياغة (65) فقرةً موزعةً على (5) أساليبٍ وهي كالتالي:

1. الاسلوبُ التّخيّلي (13) فقرةً.
2. الاسلوبُ الاستراتيجي (13) فقرةً.
3. الاسلوبُ العاطفي (13) فقرةً.
4. الاسلوبُ الاجتماعي (13) فقرةً.

5. الاسلوب التحليلي (13) فقرة.

3-4-1-2 عرض فقرات المقياس بصيغته الأولية على المحكمين:

عرض الباحث فقرات المقياس بصيغته الأولية على الخبراء والمختصين من أجل تحديد الأصلح بينهم، وقد بلغ عددها (65) فقرة موزعة على (5) مجالات. وتم رفع بعض فقرات المقياس ليصبح (62) فقرة .
3-5 القدرة التمييزية :

يتم الكشف عن القوة التمييزية من خلال معرفة الدرجة الكلية لإجابة أفراد العينة قيد الدراسة، ثم ترتيب الاستمارات تنازلياً، ويلحقها اختيار مجموعتين طرفيتين بنسبة 27% من العينة الكلية التي أخضعت للقياس، هما: مجموعة (1) عليا ممثلة للأفراد الحاصلين على أعلى الدرجات، وأخرى دنيا ممثلة للأفراد الحاصلين على أوطأ الدرجات " مُدرباً. واستخدم قانون (ت) لحساب (27 كلٍ منهما) وحصل الباحث منهما على مجموعتين: عليا ودنيا صممت قوة تمييز الفقرة، بعد تطبيق العمليات الإحصائية لاستخراج القدرة التمييزية للفقرات، وظهرت النتائج الآتية:
(1,200) و 14,700- كان ناتج الوسط الحسابي لمقياس أساليب التفكير وفقاً لنموذج نيثلنج يتراوح ما بين)

2- استبعدت بعض الفقرات لعدم ظهور معامل تمييز عالٍ لها لبقى عدد الفقرات (56) فقرة.

3-6 معامل الاتساق الداخلي :

3-6-1 معامل الاتساق الداخلي للمقياس ككل :

استخدم الباحث معامل الارتباط (بيرسون) لبيان مستوى الدلالة بين درجات أفراد العينة على كل فقرة، ودرجاتهم . وظهرت النتائج تُشير إلى اتساق بعض الفقرات عند spss على المقياس الكلي، بواسطة الحقيبة الإحصائية (0,01) مستوى دلالة

3-6-2 طريقة الاتساق الداخلي (الفكرونباخ) :

واستخدم الباحث طريقة الفاكرونباخ لقياس أساليب التفكير وفقاً لنموذج نيثلنج لحساب معامل الثبات لكل أفراد . وظهرت قيمة معامل الثبات spss عينة البناء البالغ عددهم (110) مدرباً، باعتماد الحقيبة الإحصائية (0,989) عالية بمقدار

3-7 المستويات المعيارية للمقياس:

() عبد الله الصمادي وماهر الدرابيع : القياس والتقويم النفسي والتربوي بين النظرية والتطبيق، عمان، دار وائل، 2003، ص 155¹



يَتَوَقَّفُ الحُصُولُ عَلَى مُنْحَنِي التَّوْزِيعِ الأَعْتَدَالِي لِلبياناتِ عَلَى طَبِيعَةِ العَيِّنَةِ وعددها ومدى مُناسِبَةِ الاختباراتِ لِهذِهِ العَيِّنَةِ، فَكَلِمَا زَادَ حَجْمُ العَيِّنَةِ وَكَانَتِ الاختباراتِ مُناسِبَةً، اقْتَرَبْنَا عِنْدَ تَوْزِيعِ البياناتِ مِنْ شَكْلِ المنحني وَقَدْ اسْتخدَمَ البَاحِثُ مَنحَنِي التَّوْزِيعِ الطَّبِيعِي (كَاوس)، وَاخْتَارَ خَمْسَةَ مُستوياتٍ لِقِيَاسِ أسَالِيِبِ (2) الأَعْتَدَالِي التَّفَكِيرِ وَفَقاً لِنَمُودَجِ نِيْتَلِنَجِ . وَفُتِمَتِ الدَّرَجَاتُ المِيعَارِيَّةُ عَلَى (5) مُستوياتٍ، فِيمَا تَكُونَتِ الدَّرَجَاتُ المِيعَارِيَّةُ المَعْدَلَةُ مِنْ (12) دَرَجَةٍ، وَكَمَا مُبَيَّنَ فِي جَدولِ رَقْمِ (2) :

جدول (2)

أسَالِيِبِ التَّفَكِيرِ وَفَقاً لِنَمُودَجِ نِيْتَلِنَجِ يُبَيِّنُ الدَّرَجَاتُ المِيعَارِيَّةُ وَالمَعْدَلَةُ وَالدَّرَجَاتُ الخَامُ وَالمُستوياتُ لِمِقياسِ

المستويات	الدرجة المعيارية	الدرجة المعيارية المعدلة	الدرجة الخام	العدد	النسبة المئوية
جيد جدا	+3_+1,8	80-68	280-237	16	14,54%
جيد	+1,8_+0,6	68-56	236-191	20	18,18%
متوسط	+0,6_-0,6	56-44	190-146	49	44,54%
مقبول	-0,6_-1,8	44-32	145-101	22	20%
ضَعِيف	-1,8_-3	32-20	100-56	3	2,72%

3-8 التَّطْبِيقُ النِّهَائِي لِمِقياسِ:

بَعْدَ اسْتِكْمَالِ كُلِّ مُتَطَلِبَاتِ تَصْمِيمِ المِقياسِ وإِجْرَاءَاتِهِ أَصْبَحَ المِقياسُ جَاهِزاً لِلتَّطْبِيقِ، فَقد تَكُونُ مِنْ (56) فِقْرَةً مُوزَعَةً عَلَى خَمْسِ مَجَالَاتٍ. وَطَبَّقَ البَاحِثُ المِقياسُ بِصُورَتِهِ النِّهَائِيَّةِ عَلَى العَيِّنَةِ البَالِغِ عِددها (70) مَدْرِباً. وَبَعْدَ تَحْلِيلِ اسْتِجَابَاتِ عَيِّنَةِ البَحْثِ جُمِعَتِ البِياتُ فِي اسْتِمَارَةٍ خَاصَّةٍ، وَأَصْبَحَ لِكُلِّ لَاعِبٍ دَرَجَةٌ خَاصَّةٌ بِهِ.

3-9 الوَسَائِلُ الإِحْصَائِيَّةُ:

(،) وَبِرِنامِجِ الإِكْسَلِ لِلحُصُولِ عَلَى المَعْلُومَاتِ الإِحْصَائِيَّةِ spss اسْتخدَمَ البَاحِثُ الحَقِيبَةَ الإِحْصَائِيَّةُ)

4-1 عَرَضُ نَتائِجِ مِقياسِ أسَالِيِبِ التَّفَكِيرِ وَفَقاً لِنَمُودَجِ نِيْتَلِنَجِ وَتَحْلِيلِهَا وَمُنَاقَشَتِهَا:

جدول (3)

يُبيّن المؤشرات الإحصائية لعينة التطبيق في أساليب التفكير وفقاً لنموذج نيثلنج

المستوى	معامل الالتواء	الخطأ المعياري	الانحراف المعياري	الوسط الفرضي	الوسط الحسابي	عينة التطبيق	المقياس
عالٍ	0,112	0,287	29,545	168	203,85	70	

من النتائج المعروضة في جدول رقم (3)، نلاحظ إن عينة التطبيق حققت في المقياس وسط حسابي قدره (أما معامل 168). وهو أعلى من الوسط الفرضي البالغ قدره (545,29) وانحراف معياري قدره (85,203) وهو يدل على اعتدال توزيع العينة على منحنى التوزيع الطبيعي الذي وقع بين ± 3 0,112 الالتواء فقد بلغ (وبناءً على ذلك " تعد العينة موزعة توزيعاً طبيعياً. إذ كلما انحصرت قيمة معامل الالتواء بين ± 3 كانت العينة (وهي قيمة قليلة تدل على الثبات الداخلي لنتائج العينة. 0,287. أما الخطأ المعياري فقد بلغ (1)متجانسة". 3.

جدول (4)

يُبيّن الدرجات المعيارية والخام والمستويات والتكرار والنسبة المئوية لعينة التطبيق لمقياس أساليب التفكير وفقاً

لنموذج نيثلنج

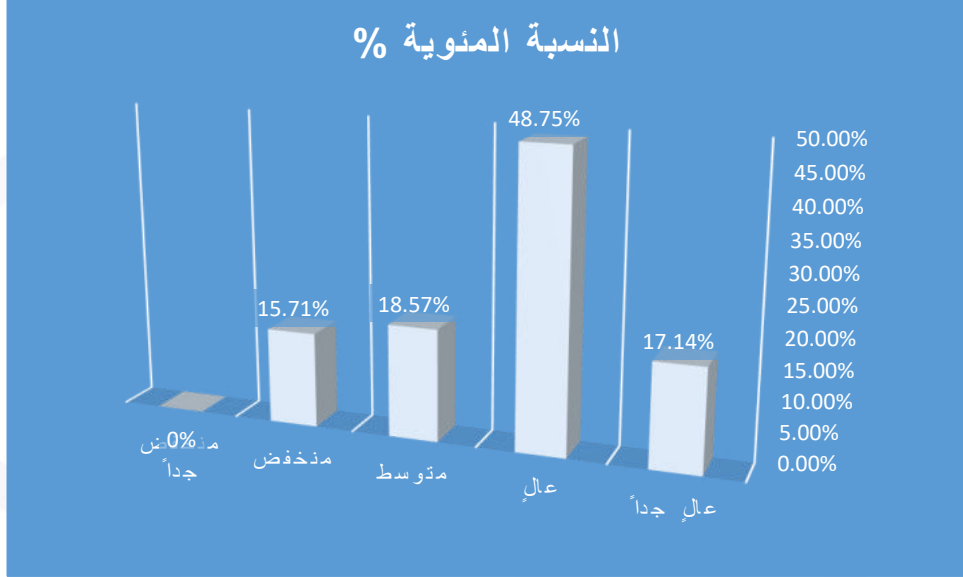
المستويات	الدرجة المعيارية	الدرجة الخام	التكرار	النسبة المئوية %
عالٍ جداً	80-68	280-237	12	17.14%
عالٍ	68-56	236-191	34	48.75%
متوسط	56-44	190-146	13	18.57%
منخفض	44-32	145-101	11	15.71%
منخفض جداً	32-20	100-56	0	0%

يتبين من خلال الجدول (4) إن العينة توزعت على عدة مستويات في مقياس أساليب التفكير وفقاً لنموذج نيثلنج، فأفراد عينة التطبيق البالغ عددهم (12) كان مستواهم عالٍ جداً وكانت نسبتهم (17,14%) . أما الذين بلغوا مستوى عالٍ فكان عددهم (34) وكانت نسبتهم (48,75%) . والذين بلغوا مستوى متوسط كان عددهم (13) وكانت نسبتهم (18,57%) . أما الذين بلغوا مستوى منخفض فكان عددهم (11) وكانت نسبتهم (15,71%) . والذين بلغوا مستوى منخفض جداً فكان عددهم (0) وكانت نسبتهم (0%).

178الموصل ، ، 1999 ، ص ، وديع ياسين البكريتي و محمد حسن العبيدي : التطبيقات الإحصائية واستخدامات الحاسوب في التربية الرياضية (1)



وعند العودة للجدول رقم (3) ومقارنته ما حققته عينة التطبيق بالمستويات المعيارية . نجد معظم أفراد العينة يقع و(مُتوسِّط) و(مُنخَفِض) (ضمن المستوى (عَالٍ)، بينما تَوَزَع بقية أفراد عينة البحث على المُستويات (عَالٍ جداً و(مُنخَفِض جداً)، والشكل رقم (1) يوضِّح مُستويات مقياس أساليب التَّفكير وفقاً لنموذج نيثلنج لمُدربي الكُرة الطَّائرة :



شكل (1)

يُوضِّح مُستويات مقياس أساليب التَّفكير وفقاً لنموذج نيثلنج لمُدربي الكُرة الطَّائرة. مؤشراً تُعدُّ نتيجة مُستوى القياس (عَالٍ جداً) و (عَالٍ) الذي وَقَع فيه أساليب التَّفكير وفقاً لنموذج نيثلنج ، على امتلاك المُدربين طُرق وأساليب مُفضَّلة تُتيح لهم توظيف قُدراتهم، وتنظيم افكارهم والتعبير عنها بما يتلائم مع المشاكل التي تُعترض تحقيق أهدافِ الوحداتِ التَّدريبية. وهذا يعني ان اغلب المدربين قد يستخدمون عدة اساليب في التفكير يُتَوَقَّع ان تتطور مع مرور الزمن؛ نتيجة لتراكم الخبرة في التعامل مع المشكلات. فكلما بقوله ان "هناك مَجْموعَة مِن (4)تقدم الانسان بالعمر كان اكثر توليداً للأفكار والحلول. وهذا ما يؤكد (مجيد) الاساليب التي تُتيح للفرد التعامل مع المواقف دون الاشارة إلى ان هناك أسلوب جيد أو سيء، ولكن يمكن أن يكون أكثر أو أقل ملائمة للمواقف أو للمهمة، وما يكون ملائماً في مهمة ما قد لا يكون ملائماً في مهمة أخرى".

(1) . 145 دار العربي، عمان، 2014 ، ص ، مجيد ماهر : اساليب التفكير في مجتمعات لا تفكر⁴



وأكد العامري ذلك بقوله : " إنَّ لِكُلِّ فردٍ اسلوبه الخاص في التفضيل والتفكير ومُستوى التَّعامل مع المُشكلات المهنية، وإنَّ حالة الاستقلال المطلق بين أساليب التفكير غير موجودة ، إذ إنَّها تميل الى الارتباط مع بعضها . وأشار (الحلاق) إلى إنَّ "التفكير يتطلب⁽⁵⁾ البعض ولا تميل الى الثبات والجمود، بل هي متحركة وقابلة للتغيير " من الفرد أن يُمارس عمليات التخطيط والمراقبة والتقييم لتفكيره بصورة مستمرة، ويُعدُّ هذا المُستوى من التفكير من أعلى مُستويات التفكير، وأفضل شكلاً من أشكال التفكير الذاتي المُتطور والذي يتعلق بمراقبة الفرد لذاته⁽⁶⁾ وكيفية استخدامه لتفكيره "

أما بالنسبة لمُستوى (متوسط)، فيعود الى اختلاف أساليب التفكير بين مدرب وآخر، كما ان تفوق بعض المدربين على بعضهم الآخر في مستوى التفكير يرجع الى جملة اسباب منها: ان الكفاءة الذاتية والحيوية للمدربين اكثر اتساعاً مما يعزز من خبرتهم وسعة تفكيرهم، وكذلك الاطلاع ، والانفتاح ، والمتابعة ، والثقافة ، والممارسة الرياضية ، والتكوين البدني ، والاوزاع الاجتماعية والنفسية ، مما تساعد على اغناء خبراتهم الادراكية وتؤثر وبشكل فعّال على تفكيرهم فيدفعهم بشكل كبير جداً للعمل والارادة العالية في تحقيق الاهداف، ويأتي هذا التفسير متسقاً مع ما تطرق اليه (الكبيسي) ، " ان بعض الاشخاص يتصفون بتمايز اقل وضبط الذات بشكل اوطأ وكذلك اكد حسام صالح الهنداوي (2006م) الى ان الاختلافات بين الافراد تُكتسب⁽⁷⁾ مقارنة بأشخاص اخرين⁽⁸⁾ من خلال التنشئة الاجتماعية " .

ويعزو الباحثُ نتيجة المستوى (مقبول وضعيف) ، لعدم تناسب الأسلوب الذي يستخدمه المُدربون مع أساليب كثيرة ومتنوعة مُتعارف عليها؛ بسبب عدم اتاحة الفرصة لهم لممارسة الانشطة الرياضية والمشاركة في الدورات التدريبية والتطويرية ، وكذلك بسبب التنشئة الاجتماعية التي تجعلهم يعتمدون على الآخرين ، فبعض المُدربين ليس لديهم القدر الاكبر من المسؤولية وتحمل الابعاء في مواجهة المشاكل التي تُعترض حياتهم؛ فكلما كان الفرد بتماس اكثر مع المشكلة كان ذلك أفضل في الحل.

184. دار الشروق، عمان ، 2012، ص ، محمد العامري : التفكير دراسة نفسية تفسيرية⁽²⁾

(3) هشام سعيد الحلاق: اساليب التفكير الابداعي مهارات تستحق التعلم، 2010، ص 126.

(4) كامل ثامر الكبيسي: استراتيجيات تنمية مهارات التفكير العليا ، ط1، دار الثقافة للنشر والتوزيع، الاردن ، 1995، ص 97.

(5) حسام صالح الهنداوي : برنامج لزيادة فاعلية النمط المتكامل للتفكير واثره على المشكلات لدى طلاب المرحلة الاعدادية رسالة ماجستير كلية التربية⁸

قسم علم النفس جامعة المنصورة 2006



ويأتي هذا التفسير متسقاً مع ما تطرق إليه (العبودي) من " إنَّ الافرادَ لهم أدوارٍ كثيرةٍ في المُجتمعِ وفُرصٍ أكثرَ للمرورِ بتجاربٍ مُختلفةٍ، وهذا يَرجعُ إلى التَّنَشِئَةِ الاجتماعيةِ والامكانياتِ العقليةِ ، حيث يُشجَعُ بعضُ الافرادِ على الاستقلاليةِ والتفكيرِ بطرائقٍ تحليليةٍ أكثرَ من الآخرين مما يؤدي إلى تنمية تلك المعارفِ عموماً لدى بعضِ الافرادِ" (9).

- الاستنتاجات والتوصيات 5

5-1 الاستنتاجات:

في ضوء النتائج التي توصل إليها الباحث كانت الاستنتاجات الآتية:

- 1- تتمتع العينة بمستويات مختلفة من التفكير وفقاً لنموذج نيثلنج.
- 2- تساهم أساليب التفكير المختلفة في تنمية الابداع لدى مدربي الكرة الطائرة.
- 3- كانت أغلب إجابات العينة في المستوى الجيد، وهذا يعني إن أغلب المدربين يتمتعون بمستوى جديد من التفكير.

5-2 التوصيات: يُوصي الباحث بالآتي:

- 1 - الاستفادة من مقياس أساليب التفكير وفقاً لنموذج نيثلنج لمدربي الكرة الطائرة المسجلين في الإتحاد المركزي العراقي الذي قام الباحث بإعداده .
- 2 - تعميم نتائج الدراسة الحالية على مدربي الكرة الطائرة.
- 3 - التأكيد على أهمية أساليب التفكير في مجال العمل، من خلال اختيار الأسلوب المناسب؛ لغرض الدخول الى الهدف بأسرع وقت ممكن.

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111. ط2 ، 2012، ص ، عبد العزيز سلمان العبودي : اساليب التفكير التصميمي (1) 9



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ت	الاسلوب التخيلي	دائماً	غالباً	احياناً	نادراً	أبدأ
1	اسعى كمدرّب الى تحقيق ما اطمح إليه					
2	اتصور الأشياء ذاتياً					
3	اتخيل ردود الأفعال في المواقف المختلفة					
4	اعتقد ان الروتين يعيق تحقيق اهدافي					
5	اعتقد ان النظام يعيق تحقيق اهدافي					
6	لديّ القدرة على التخطيط					
7	أحسن ترتيب وتوظيف أدواتي التدريبية					
8	أحسن استخدام التشبيهات عند إعداد خطط التدريب					
9	أنجز الأعمال المطلوبة من وجهة نظري الذاتية					
10	أعد لكل خطوة سأقوم بأدائها في الوحدة التدريبية					
11	اتوقع النتائج دون الحاجة الى الاستعانة بالحقائق البراهين					
12	اتعامل بنجاح مع المواقف التي تكون مثيرة للقلق					
13	عندما تواجهني مشكلة ما فإنني أفضل ان احلها بطريقة تقليدية او مألوفة					



ت	الاسلوب الاستراتيجي	دائماً	غالباً	احياناً	نادراً	أبدأ
1	لدي رؤية تجاه المستقبل					
2	اتوقع ما سيحدث مستقبلاً					
3	اميل الى المخاطرة					
4	ادرس المواقف بصورة كلية					
5	اتحدى الصعاب لتحقيق اهدافي					
6	استعين بأراء الاخرين في عملي					
7	اعتمد في تفكيري على خبرات الاخرين الايجابية					
8	تساعدني خبراتي الناجحة السابقة على تحقيق الهدف المطلوب مني					
9	تساعدني خبراتي على تقييم المواقف التي اتعرض لها بالمستقبل					
10	اسعى الى تحسين ارائي لمواجهة المشكلات					
11	اسعى الى وضع رؤية معينة للمستقبل البعيد للاعبين					
13	اعمل على التوازن بين التفكير والتخطيط والتنفيذ					
ت	الاسلوب العاطفي	دائماً	غالباً	احياناً	نادراً	أبدأ
1	أساند زملائي حتى لو اختلفوا معي في الرأي					
2	اهتم بتشجيع الاخرين					
3	اميل الى مساعدة الاخرين					
4	اعطف على من أعرفه ومن لا أعرفه					
5	أساعد الاخرين على إنجاز المهام دون مقابل					
6	اعتمد على عواطفني بشأن اتخاذ القرارات نحو الاخرين					
7	اميل الى العمل الجماعي					
8	اعتمد على توقعاتي في اتخاذ القرارات نحو الاخرين					
9	اشارك بعمل الخير مع زملائي المدربين					
10	لدي الرغبة أن اكافح من أجل الاخرين					
11	لدي القدرة على فهم مشاعر الاخرين					
12	لا استطيع التوقف عن التفكير في بعض المواقف المؤلمة					
13	تعتمد علاقتي مع اللاعبين على العقل وليس على العاطفة					



ت	الاسلوب الاجتماعي	دائماً	غالباً	احياناً	نادراً	أبدأ
1	تميز بروح الجماعة					
2	أشارك الآخرين بالأفكار قبل اتخاذ قرار نحو المشكلات التي واجهها					
3	اتحاور مع الآخرين قبل اتخاذ اي قرار					
4	اتواصل مع الآخرين بسهولة					
5	اتصف بالاجتماعية					
6	اجيد استخدام لغة الجسد في التواصل الاجتماعي					
7	لديّ القدرة على تكوين علاقات اجتماعية بسهولة					
8	يسعدني التفاعل الايجابي مع الآخرين					
9	ارغب في مشاركة الآخرين لتحقيق اهدافي					
10	اجيد الاحتفاظ بجانب الود لكل لاعب					
11	امكث اكثر فترة مع اللاعبين					
12	لديّ القدرة على الحديث بطلاقة وجذب انتباه اللاعبين					
13	ابذل قصارى جهدي لتحقيق اهدافي					

ت	الاسلوب التحليلي					
1	لديّ القدرة للحكم على الأداء					
2	استطيع تقييم النتائج المستهدفة من خلال الأداء الفعلي					
3	أحلل الأداء تحليلاً دقيقاً					
4	اتعامل مع الآخرين في ضوء ترتيب اولويات حياتي					
5	ارجع المشكلة الى اسبابها الاولية قبل حلها					
6	استفيد من المناقشة والحوار مع الآخرين في حل مشكلاتي					
7	استفسر عن ما اجهله					
8	ابحث عن المعلومات التي تساعدني في التواصل مع الآخرين					
9	استخدم القياس عند حل المشكلات					
10	لديّ القدرة على اقناع اللاعبين بأفكاري					
11	استبعد الاستراتيجيات التقليدية لحل المشكلات من خلال استقصاء استراتيجيات جديدة افضل منها					
12	اميل الى اكتشاف طرق تدريب افضل واحديث					
13	لديّ القدرة على ادارة المواقف					

A STUDY OF SOME OF THE SOCIAL AND PSYCHOLOGICAL FACTORS RESPONSIBLE FOR VIOLENCE AMONG MIDDLE SCHOOL STUDENTS (12-14) YEARS OLD

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Abstract

Research aims to identify:

- 1- Social factors responsible for violence among middle school students with reconstruction (12-14) years.
- 2- Psychological factors responsible for violence among middle school students with reconstruction (12-14) years.

The current research sample (200) included a student through a random choice from the research community from the (Al -Asma'i) school middle school in Basra Governorate:

The first group: The students who practiced violence: The students were chosen by the members of this group in a intentional way from the students who practiced the behavior of violence while joining the classrooms in the intermediate study, and their number reached (50) pupils that were identified by these students through two basic sources: records and documents There is inside the school.

As for the second group: the students who did not exercise violence: the normal students who were not involved in the practice of violence were chosen during their studies inside the orbit in a intention, provided that the number of its members is equal to the members of the group that practiced the violence, and provided that it is similar or similar to its members with The group that practiced and the number of these students reached (50) pupils, after processing the data with the computer according to the 21Sps Ver statistical program. A group of **conclusions** were reached, the most important of which are:

- 1- The method of physical punishment and domination is a negative impact on raising students.
- 2- Working in the style of reward has a positive effect on raising children from students.



**Recommendations:**

- 1- The need for the family to monitor the student when he tries to watch TV, introduce him to good programs, alert him and awaken him from watching programs that do not fit his time and mental age.
- 2- The necessity of avoiding the method of physical punishment and domination in raising children, whether at home or school

Keywords: social and psychological factors; middle school students

1 -1 Introduction and Importance of Research:

Violence is a social problem that a person has known since the beginning of creation, as it is practiced with images and forms that differ from one society to another according to the customs, traditions, customs, times, and social and human conditions. Violence is no longer a phenomenon limited to a specific environment or a specific time period, but to include all societies, And all categories, and all times, and at all times. Violence studies have increased increasingly and took a large area of the interests of researchers in the humanities in general, and sociology studies in particular, as is well known, the social interaction process between the child and his family members is a continuous and developed process, as it begins to clarify the position of this individual and the expected roles of it. Hence the process of converting the object from a biological object that loved to an interactive social being. This transformative and interactive stage- which may not be familiar with daring- is one of the most accurate and difficult stages, which requires caution and great care.

Family violence is a global problem, but it did not recognize its wide spread until the twenty or thirty years of its outbreak within the family, and its dangers are not only on individuals, but also on the entire society. Studies have shown that domestic violence is not limited to a social or ethnic or religious group, although there are indications that it is linked to the economic conditions of the family and psychological pressures on family members (Al -Shehri. 2006.).

In recent years, research centers and educational counseling societies have taken care of addressing violence against children and students, as violence represents the maximum levels of aggressive behavior against others, violence is issued by aggression, and there is no violence without a prior sense of aggression,



and this aggression may be a successful psychological or economic dysfunction Social falls in one way or another on the victims (Al -Mustafa, 2015.).

Here it must be noted that school violence is a dangerous phenomenon that sweeps our schools, as the pattern of behavior that includes aggression and violence continuously, and severely is a real problem, as it leads to counter - aggression, lack of acceptance, and rejection from society, and its danger lies in the possibility of its association with violence during The stage of adulthood and masculinity later (Suleiman, 2008: 45 (.

As for the importance of the research, my girl by highlighting the role of social and cultural factors that cause violence among school students during their involvement in the process of providing scientific interpretations of effective factors in order to plan for a safer future education, and its theoretical importance stems in that it constitutes one of the most important topics of research in social problems and science The educational meeting in the school field specifically.

The **importance** of this study lies in the following set of points:

- 1 -The current study deals with the phenomenon of domestic violence, which has become a phenomenon that is widespread in our Arab societies, and the results of the current study can contribute to the results and proposals that can be employed to build suitable programs for the individual service specialist to deal with.
- 2- The results of the current study may contribute to educating the family and educators about the danger of the practice of violence against children, and the consequent negative effects and behavioral disorders that harm the family and the entire society.
- 3- This study may have its importance in terms of being concerned with the study of the violence to which an important segment represents a large percentage in Iraqi society is middle school students.

1-2 Research Problem:

The phenomenon of violence among school students is one of the most negative and most negative school problems, which may hinder the expected educational and educational work from the school, and makes it an inappropriate environment to achieve the educational goals entrusted to it, the phenomenon of school violence is one of the most common phenomena on its workers to deal with them Schools, and it is a burden on administration K and the violence of students in the school takes daily forms with these different behaviors in the



relationship between both the teachers and the student, and between the student themselves(Alyan, 2003). Harmful verbs, including the clashes of students between them, beating and wounding, and the severe and strong stampede between the students while leaving the lesson and while they left the house, theft and the sabotage of tools, and gestures carried out by some students that harmonize their content.) The social conditions represented in the methods of family upbringing characterized by oppression, domination and violence, as well as the conditions of social deprivation in the family are important factors that make the student exercise violence in the school. The cultural aspects are an essential factor in the spread of violence among students. The media plays the largest in spreading the culture of violence, especially the visible world through TV programs and films, which broadcast daily and more than that the large number of satellite channels that contribute to the formation of the background of violence among the individual and the student in particular.

1 -3 Research Objective:

The research aims to identify:

- 3- Social factors responsible for violence among middle school students with reconstruction (12-14) years.
- 4- Psychological factors responsible for violence among middle school students with reconstruction (12-14) years.

1-4 Research questions:

- 1- What are the social factors that cause violence that causes school violence among middle school students?
- 2- What are the psychological factors that cause school violence among middle school student?

1-5 Research areas:

- Time Field: The research was conducted in the academic year 2020-2021
- Spatial field: The research was conducted in a middle school (Al -Asma'i) in the Al -Asma'i area in Basra Governorate
- Human field: The research was conducted on middle school students in a middle school (Al-Asma'i). For the agents of reconstruction 12-14 years.

2- Research Methodology:

2-1 Research Methodology:

The descriptive approach, which includes an accurate description, was used as it is interested in describing what is for the current phenomenon, its composition, its processes and the prevailing conditions, and the descriptive approach includes collecting data, information, his alleviation, analysis, measurement and interpretation of it, it is an accurate and organized method and an analytical method of the phenomenon or the problem to be discussed through a systematic methodology and an objective method To achieve goals (Jubouri :179-178: 2012,)

2-2 Research Sample:

The current research sample (200) included a student through a random choice from the research community from the (Al -Asma'i) school middle school in Basra Governorate: The first group: The students who practiced violence: The students were chosen by the members of this group in a intentional way from the students who practiced the behavior of violence while joining the classrooms in the intermediate study, and their number reached (50) pupils that were identified by these students through two basic sources: records and documents There is inside the school. As for the second group: the students who did not exercise violence: the normal students who were not involved in the practice of violence were chosen during their studies inside the orbit in a intention, provided that the number of its members is equal to the members of the group that practiced the violence, and provided that it is similar or similar to its members with The group that practiced and the number of these students reached (50) pupils

2-3 Information collection means:

The quantitative scientific material was collected using the questionnaire form, and the scientific material was collected by using the interview guide, which gives us more detailed information and data on the subject of the study. For the purpose of achieving the objectives of the research and after reviewing the previous literature and studies on school violence for students, the researcher approved a questionnaire tool used by the researcher (Samia Mustafa Al -Khashab :2015). The questionnaire form in its final form included a set of questions to identify school violence, and the scale addresses the necessary social aspects The psychological person responsible for school violence is appropriate for the Arab

environment, where the scale deals with some important factors, and while the most important social and psychological factors of school violence comes:

First: The questionnaire form: The questionnaire in its final form included a set of questions, and it was divided into five main sections, which are as follows:

First: Family upbringing methods: Many researchers are concerned with the family because of its influential and effective role in deviation and violent behavior, because of its vital importance in the process of socialization of the individual. According to social learning theory, children are affected by parents as an example in how to influence the behavior of others. Parents who prefer to oppress and cruelty in treatment tend their children to use violent methods similar to controlling the behavior of their friends. And monitoring the violent behavior that others do leads to violent behavior. (Zayed & others, 2004)

Second- Social deprivation in the family is seen from several dimensions, the most important of which are:: Social deprivation in the family:

Failure to equate children: It is represented in the preference of parents for some children and the distinction between one of the children and the other, and perhaps in the treatment between the father and the children, where one of them allows things and prevents the other; Which generates hatred and hatred between the children, the conflict abounds between them and the character of hatred and hatred is transmitted to the society around it, (Al -Muslimani, 2000 AD).

-Excluding and marginalizing the child: The ignorance of the children raises the feeling of isolation and the tendency to perceive others as tension (Belkuri, 2002).

This leads them to resort to violence to confirm their existence, to draw attention, or emptying

Emotional deprivation: This form of violence is the scarcity of looking at the child and avoiding talking to him, imprisoning him, or neglecting his cleanliness. Emotional deprivation and the ignorance of parents of the necessity of satisfying the social and psychological needs of children is one of the most important reasons that lead to violence (helpless, 2009.)

Third- The student's relationship with his teacher: Although the relationship between the teacher and the student is indispensable to achieve goals and that is the educational relationship, but in its negative state its lack of cooperation, respect and trust (behavior can secrete confined to the students among them, but that exceeds that to violence What he performs is violent (Al -Zaqawi, 2004).



Media: The media material saturated with the manifestations of violence nourishes the recipient and ships it psychologically, and makes him ready to deal with his problems in a violent manner, and the family in today's world faces problems imposed by the media with what its multiple channels carry from the media contents carrying or inciting violence seeds These challenges are more problems at the level of family and school life, and society in general (Blogith, 2000).

Second - The interview: As for the second tool that was used in the study, it is the evidence of the interview, given that the corresponding guide is one of the most important research means to collect data related to the subject of the study directly from students. The interview is defined as: the verbal exchange that takes place to face between the interviewers, and between another person or other people (Hassan, 2011.) The interview guide was applied to (10) jams of male students who practiced violence behavior only, and the interview guide included a sentence Among the open questions, and the observations that were placed on the questionnaire form have been used after testing them on the exploratory sample, and these observations were taken into the interview guide in its final form.

Third- Records and documents: The records and documents inside the school have been referred to in order to obtain: records and documents:

2-4 Exploratory Study:

After the researcher has finished preparing the instructions for the questionnaire for the purpose of ensuring the clarity of the paragraphs and revealing the unclear paragraphs in the questionnaire and the time it takes to answer its paragraphs, the questionnaire form was applied to a sample consisting of (10) experts from Basra University. And the notes on any of the scale paragraphs for the purpose of making the appropriate amendments to them, and the researcher showed that the measurement instructions, its paragraphs and the alternatives to the answer were clear and understandable, and it took time to answer the scale between (20-30) minutes.

2 - 5 scientific foundations

2-5-1 apparent honesty:

The scale is honest when it measures what is prepared to measure it, and honesty is one of the basic ingredients that should be available in the research tool as it is



the primary determinant of the entire measuring process (Al -Zobaie and Al - Ghannam, 1981: 39).

As it appeared to the experts that his paragraphs seem to measure the characteristic that was prepared to measure it on a group of professors, to this, the vertebrae of the scale in its initial form was presented to a number of specialists in psychology who number (6) to know their ideas on the extent of the validity of the paragraphs or their invalidity, and the safety of their formulation, The percentage (80 %) was approved and more of the agreement between the arbitrators to keep the paragraphs, delete or modify them, and the questions whose answer was illogical and unclear were modified, as well as the questions that included incomprehensible and mysterious terms.

2-5-2 scale Stability:

Stability is defined as the degree of consistency in the measurement of the feature of the measurement of the measurement from again. Its application after more than a week has passed, and Pearson's correlation coefficient has been used to extract the value of the correlation coefficient between the grades of students in the two applications, and this extracted value was the value of the stability coefficient, which reached this value (82 %) and is a high and good stability coefficient.

2-6 Statistical Means: The researcher extracts statistical means using the 21Sps Ver statistical bag:

- Math of mathematical averages.
- Standard deviations.
- Pearson's connection coefficient:
- KAY Square.

3 - View Results and Discuss:

Table (1) Punishment methods that parents use with children

Methods	first group		second group		Total first group		Total second group		Freedom degrees	possibility significance
	M	%	M	%	M	%	M	%		
Hit	28	%56	4	%8	50	%100	50	% 100	2	0.000
Insults	20	%40	18	%36						
Orientation and blame	2	%4	28	%56						

Kay square value at 0.05 level

Through table (1) of the punishment methods that parents use with children: And identifying the methods of punishment that parents use with children: Table No. (1) reveals that the possibility of significance for Ka^2 equals (0,000), which is smaller than the level of significance 0.05, and then there are fundamental differences between the two groups regarding the methods of punishment, and by asking the students about the methods of punishment that he uses it Parents are with them, (56%) of the punishment methods that parents use from among the students in the first group who practiced violence with them is the beating, and (40%) stated that insults are from the methods of punishment that parents use with them, as insults are among the methods The punishment that parents use with them, while (4%) confirmed that the method of guidance and blame is the follower By the parents with them, as for the second group who did not practice violence, the rate of (4%) answered that the methods of punishment that parents use with them are beating, and (18%) stated that parents use the method of insults with them, while the rate of (56%confirmed The method of guidance and blame is the method followed by parents with them.It became clear from the study a relationship between the methods of punishment that parents use with students and their acquisition of violence behavior. More than half of the students in the first group who practiced the behavior of violence, the punishment method that parents use with them is based on beating and insults, while the punishment method that parents use with children in the second group who did not practice violence about guidance and blame is based on; This may indicate that the use of beating and insults with children may increase the possibilities of the problem of violence among students in the school. All cases of the interview indicated that the conflict is the basis for the forms of negative relations, the cruelty of the upbringing and the strict punishment that the parents or one of them signs to the children, which leads to a violent reaction from the children against the parents or expresses his anger at leaving the house and emptying his aggressive capacity as an example in school.

Table (2) Does the family education style focus mainly about?

Methods	first group		second group		Total first group		Total second group		Freedom degrees	possibility significance
	M	%	M	%	M	%	M	%		
Reward	15	%30	20	%40	50	%100	50	%100	2	0.000
Punishment	20	%40	5	% 10						
Both	15	%30	25	% 50						



Table No. (2) shows whether the method of education in the family is mainly concentrated on the reward, the percentage of (30%) of the first group students who practiced violence behavior answered that the education method is focused on the reward, while the amount of (40%) stated that the method of education is focused on punishment, While (30%) confirmed that the method of education is focused on

Reward and punishment. As for the students in the second group who did not practice violence, it was mentioned (40%) that the education of education is focused on reward, and the percentage of (10%) indicated that the method of education is focused on punishment, while it was approved (50%). The method of education is focused on reward and punishment together.

The study revealed that more than half of the students in the first group who practiced violence behavior is based on their raising method, while the method of raising most of the students in the second group who did not practice violence, which may indicate that the use of punishment may lead to an increase in the chances of the emergence of behavior About reward, reward and punishment together violence among students. This result is consistent with the findings of Ahmed Zayed's study that the methods of bad upbringing are among the most important reasons that lead students to practice violence (Zayed, 2004.).

Table (3) What are the needs that are missing inside the house?

Methods	first group		second group		Total first group		Total second group		Freedom degrees	possibility significance
	M	%	M	%	M	%	M	%		
Material needs	25	%50	12	%24	50	%100	50	%100	2	0.000
Needs to love and acceptance	14	% 28	15	% 30						
The need for appreciation	5	% 10	14	% 28						
The need for free time	4	% 8	5	% 10						
Nothing excludes me	2	% 4	4	% 8						

We notice from Table No. (3) about what the needs are lacking inside the house: (50%) of the total of students in the first group who practiced violence behavior as material needs, and mentioned (28%) stated that it is the need for love and

acceptance, and confirmed the percentage of (10%) It is the need for appreciation, and (8%) went to the need for free time. While (4%) of the students mentioned that they do not lack anything, but for the students in the second group, the percentage of (24%) stated that he needed material needs, and (30%) indicated their need for love and acceptance, and approved the percentage of (28 %) To their need for appreciation, and (10%) confirmed their need for leisure time, and (4%) stated that they do not lack anything.

The study revealed that there is a relationship between the needs that lack students inside the house and the emergence of their behavior, as the student is for the deprivation he feels, so his aggression and violence will be as a basis for aggression of the arising tension about the continuation of unacceptable reflection needs. (Shehan: 2009). In this regard, the interview cases indicated with the students who practiced the behavior of violence to the needs that they lack within the family, as most of these cases emphasized that the material need and the need for appreciation and love the most important needs that they lack inside the house.

Table (4) What kind of relationship between you and teachers?

Methods	first group		second group		Total first group		Total second group		Freedom degrees	possibility significance
	M	%	M	%	M	%	M	%		
Good relationship	12	%24	36	%72	50	%100	50	100%	2	0.000
Normal relationship	18	% 36	10	% 20						
Bad relationship	20	% 40	4	% 8						

Table (4) Shows about what is the type of relationship between you and the teachers. (24%) of the first group students who practiced violence have answered that the relationship is good with the teachers, while (36%) stated that the relationship is normal, while (40%) confirmed that it confirmed The relationship is bad. As for the second group who do not exercise violence, it was mentioned (72%) that their relationships are good with the teachers, while he answered (20%) that their wick is normal, so it was mentioned (8%) that their relationship is bad with the teachers. . It was found from the study that the relationship of students to teachers in the second group who did not practice violence is better than the students 'relationship with teachers in the first group who practiced violence behavior. This is evidenced by the fact that the good relations between

students and teachers lead to the lack of possibilities of the emergence of violence among students. It became clear from the study that more than half of the students who practiced violence stated that the relationship between them and the teachers is a normal relationship, while we find that the majority of students who did not exercise violence stated that the relationship between them and the teachers is a good relationship. The good relationship between the student and teachers leads to the lack of the possibility of the emergence of violence between students. Although the relationship between the teacher and the learner is indispensable to achieve educational goals, it is in its negative state that its lack of cooperation, respect and trust can secrete violent behavior. (Vial: 202).The case of the interview indicated that the relationship between the teacher and the student is a relationship that lacks cooperation between the two parties, which leads to violence among students.

Table (5) Do you see that the media has a role in the students' acquisition of violence behavior?

Methods	first group		second group		Total first group		Total second group		Freedom degrees	possibility significance
	M	%	M	%	M	%	M	%		
YES	35	%70	14	%28	100	%100	100	100%	2	0.000
NO	15	%30	36	%72						

Table (5) Shows that you see that the media has a role in the students' acquisition of violence behavior (70%) of the first group students who practiced violence (yes), while (30%) mentioned the word (no),As for the second group who do not practice violence, he mentioned (28%) with the word (yes), while he answered (72%) with the word (no).It was found from the study that the majority of students in the first group who practiced violence, and the second group who did not exercise violence confirm the existence of a role for some media in the students' acquisition of violence behavior. In this regard, the interviews indicated the role that the media plays in the students' acquisition of violence, as this confirmed Cases that watching violent practices on television will negatively affect children, These scenes we learn, and we practice them in the courtyards of school with our colleagues, through which he crossed the violence underneath me. This result is consistent with the findings of the study: Adly Al -Samri, where the study revealed that one of the most important reasons that lead children to the use of these violence from bad models of violence that has the negative impact of the media in what it may sometimes provide (Al -Samri, 2000.)

Table (6) In the case of yes: arrange the following media in terms of its importance in acquiring the behavior of violence

Methods	first group		second group		Total first group		Total second group		Freedom degrees	possibility significance
	M	%	M	%	M	%	M	%		
Television	31	%62	17	%34	100	%100	100	%100	2	0.000
Cinema	11	% 22	22	% 44						
Newspapers	6	%12	7	%14						
radio	2	%4	4	%8						

Table (6) shows the arrangement of the following media in terms of its importance in acquiring the behavior of violence, a source of (62%) of the first group students who practiced violence behavior that television has the largest role, while (22%) mentioned the impact of the cinema, while confirmed (12%) for the influence of newspapers, while (4%) answered the influence of the radio. As for the second group who do not practice violence, it is mentioned (34%) that the TV has the effect of acquiring violence behavior. While (44%) were those who emphasized that the largest role of cinema, and mentioned (14%) of the influence of newspapers, while (4%) of the influence of Al -Radia. It was found from the study that the majority of students in the first group who practiced violence, and the second group who did not exercise violence confirm a role for some media in the students' acquisition of violence behavior. In this regard, cases of the interview indicated the role that the media plays in the students' acquisition of violence, as these cases confirmed that watching violent practices on television screens negatively affect the children, especially the display of tools used in the scene of violence such as knives, swords and sharp tools, these scenes we learn, And we practice it in the courtyards of school with our colleagues, through which it expresses the violence underneath me. This result is consistent with the findings of the study: Adly Al -Samri, where the study revealed that one of the most important reasons that drive children to use violence from bad models of violence is the negative impact of the media in what it may sometimes provide) Al -Samri, 2000). The television is ranked first among the means. The interviews have indicated that TV is the first most follow -up and most influential media medium on the children within the family; TV is located within every home. TV, according to cases of interviews, is the first in terms of its impact on students' acquisition of violence behavior. Studies indicate that the display of violence on television leads to an increase in the possibilities of the emergence of personal aggression, the audio, audio and print media, is largely responsible for the spread



of aggression in modern societies, as it is presented to viewers in violence films and crime stories. The aggressive behavior models, which are followed, and their affiliation. With information that facilitates the commission of crimes (Saleh, 1997).

4- Conclusions and Recommendations:

4-1 CONCLUSIONS:

After presenting the search results, the researcher reaches some conclusions:

- 1- The method of physical punishment and domination is a negative impact on raising students.
- 2- Working in the style of reward has a positive effect on raising children from students.
- 3- There is a relationship between social deprivation in the family and the emergence of violence behavior among students.
- 4- The weakness of the relationship between the teacher and the student affects the appearance of the behavior of violence among students.
- 5- Television is ranked first in terms of its impact on students 'education for violence behavior, and television is followed in terms of the importance of cinema, newspapers and radio.

4-2 Recommendations:

- 1- The need for the family to monitor the student when he tries to watch TV, introduce him to good programs, alert him and awaken him from watching the programs that do not fit with his time and mental age.
- 2- The necessity of avoiding the method of physical punishment and domination in raising children, whether at home or school. .
- 3-. Enhancing and strengthening the experience of social and educational counseling in schools and opening the field of initiative for guides in order to care for students and protect them and help them solve their problems and overcome the difficulties they face.
- 4- The necessity of strengthening the relationship between the family and the school in the field of monitoring and following students.



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A STUDY OF THE SOCIAL AND PERSONAL ADJUSTMENT OF MALE AND FEMALE PHYSICAL EDUCATION TEACHERS IN THE PREPARATORY STAGE IN BASRA GOVERNORATE

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Abstract

Study the social and personal compatibility of the teachers and teachers of physical education in the preparatory stage of Basra Governorate

Summary of the Research

The goal of research to:

- 1- Learn about identifying personal, social, health and emotional compatibility of physical education teachers in preparatory schools in Basra Governorate.
- 2 - Compassionate between physical education teachers and teachers in personal, social, health and emotional compatibility.

It is a simple random sample. The sample included (40) teachers who were divided into two equal groups in the number, as the number of each group reached (20) teachers, and the number of (20) schools.

Keywords: social and personal adjustment; physical education teachers.

1 -1 Introduction and Importance of Research:

The human crews have an important role in the construction of the civilization of society, as the summary is strengthened by the construction of people who are able to achieve success and the progress of their society in general, and for themselves in particular, which requires the provision of the integrated pastor of the individual in all aspects And emotionally, socially and linguistically, and this is what is not doubtful about it, it is reflected in the ponds positively, what can be possible from the proper interaction, and the achievement of the success is academic and professional, and the fulfillment of psychological and social adaptation and the teacher of physical education in preparatory schools is an example for the students. His actions and the teacher bears a great responsibility on which the entity of many members of society depends, and the concept of personal and social compatibility has great importance in psychology because of



its effective role in the natural course of the life of individuals and groups in any humanitarian society. Understanding human behavior requires attention to the individual and the environment together, and that the agreement we are looking for is that the human being modified its behavior so that it is compatible with external conditions and the compatibility includes several aspects of them in personal, psychological and social aspects. The compatibility, whether at the personal or social level, has its importance in order for a person to achieve his personal and physiological balance, for consensus begins with the existence of a specific desire or need that a person seeks to satisfy, and by achieving this gratification, the person will achieve the consensus that he seeks, and for the person to achieve personal consensus, there is a set of strategies Which he can use and resort to when needed, and these strategies may be negative or positive, but they remain a strategy that a person takes to achieve compatibility. A person grows through the interaction of genetic forces and environmental forces as well as the formations of the psychological system, and the arrival cannot be understood unless we understand the variables related to the human and the environment. , 2002) Until the emotional and social reporting is a distance, which is reflected in an important way in the knowledge performance, the processes of thought and positive behavior in the development of the ability to adapt and success. And success is a continuous dynamic process that a person aims to change his behavior, to cause a more compatible relationship between him and the environment and this relationship is determined since the early years of the child's life and the environment surrounding him is an important factor in shaping his trends, inclinations and his view of life because the emergence of people who are not compatible in a specific group A stone may be found in front of reaching the goals he seeks and that the personality capable of disposing of various situations of life in ways of value and effectiveness for the society in which we live is considered a high degree of personal and social compatibility

The importance of the study can be clarified in general, as follows:

- 1- The importance of this research by highlighting some aspects of personal and social compatibility of physical education teachers and teachers.
- 2- This research provides a degree of information that enhances the understanding of the causes of the personal and social compatibility of physical education teachers.
- 3- Lack of studies in this topic, which deals with personal and social success for physical education teachers and teachers.

4- To the continuous increase in preparing teachers and teachers in middle schools.

1-2 Research Problem:

As the physical education teacher has the primary role in the educational and educational process and that it is very close to the students and its impact on them and their behaviors, it is most of the teachers to be compatible in his personal and social behavior, and many psychological and social studies have emphasized the need for physical education teacher to enjoy some characteristics even The desired achievement is done, including good health, emotional stability, good appearance, the ability to drive and the ability to properly behave in the face of some problems and equity in the spirit of fun and positive participation in understanding students 'problems and working to find appropriate solutions to them. From here it is clear the importance of studying the problem of personal and social compatibility of physical education teachers in the preparatory stage of its importance in forming their educational personality, which depends on their family upbringing and their personal, health, emotional and economic conditions and methods of preparing them.

1 -3 Research Objective:

-Learn about identifying personal, social, health and emotional compatibility of physical education teachers in preparatory schools in Basra Governorate.
Comparing the teachers and teachers of physical education in personal, social, health and emotional compatibility.

1 - 4 Research imposition:

1 -There are statistically significant differences between the teachers and teachers of physical education in personal, social, health and emotional compatible.

1-5 Research areas:

1-5-1 Human Borders: This research was limited to the teachers and teachers of physical education in middle schools

1-5-2 Time limits: for the academic year 2020/2021 AD, and its results are generalized on the standards used in the research.

1-5-3 Spatial Borders: Preparatory Schools in Basra Governorate.

**1-6 important terms :****Compatibility:**

The balance of the individual with himself or his harmony with himself in the sense of his ability to confront and resolve the conflicts that arise inside him and his frustrations, and the extent of his liberation from the tension and anxiety caused by it, and his success in reconciling his motives and his various tendencies, then harmony with the individual with the circumstances of his material and social environment in general, including in it Of other people, relationships, elements, fields, topics and events "(Al -Qaryati, 2003, 50).

Psychological compatibility:

It is represented in the individual's acceptance and realistic understanding of his own understanding and his ability to achieve the satisfaction of his biological, psychological, social and reducing tensions and anxiety in a way that is satisfied with society and pushes him to more work and productivity through the existence of a positive relationship between the individual and the surrounding environment so that he has the ability to control emotions and change behavior With the aim of the individual's satisfaction with himself, his confidence in it, his feeling of personal and social security and his sense of his value.

Social consensus:

It means the individual's satisfaction, his understanding of himself and his capabilities, and the establishment of successful social relationships with others inside and outside the family, by adhering to the standards, values and ethics of society, and is also represented in social participation through courtesy of friends and a sense of happiness when visiting them and the love of participation in trips, clubs, etc. (Sudanese: 2014).

Family consensus:

It is defined as a feeling of stability and family cohesion with the ability of the teenager to establish a positive relationship with love, respect, understanding and confidence between him and his family members and to feel happy through his presence within the family.

**Health compatibility:**

It is linked to the standards of personal and social compatibility, the matters of society's demands and the contribution of its service and the individuals who obtain high degrees in this measurement as a sign of their poor health, while low grades indicate good health compatibility.

Emotional compatibility:

It is related to the standards of realistic awareness, a sense of happiness, emotional balance and satisfaction, and individuals who get high degrees tend to be unbalanced in their emotional lives, while individuals who get low degrees tend to be emotional balanced. (Salman: 2011).

2- Research methodology:**2-1 Research Methodology:**

The researcher used the descriptive approach, because it is the most suitable approach to descriptive studies

As an organized scientific effort to obtain information and data to describe the phenomenon the subject of the research.

2 - 2 Research sample:

It is a simple random sample known to Raja Abu Allam: "With the possibility of choosing any member of society as an element of the sample" (Abu Allam, 2004, 159. The sample included (40) teachers who were divided into two equal groups in the number, where the number of each group reached (20) teachers, and (20) schools.

2-3 Exploratory Studies:

Sincerity of the arbitrators: Where the researcher relied on the sincerity of the arbitrators knew as: raising the excitement of the examiners to the maximum acceptance of the scale and to ensure the cooperation of the examiners in the test position. " Put it for him. The researcher calculated the scientific transactions of the test, knowing that this test was used in many foreign and Arab studies and studies have confirmed the sincerity and stability of the test with a high degree of accuracy to measure compatibility, and in the current study, the researcher extracted and calculated the scientific transactions of the test using the midterm test to calculate the sincerity of the test And its stability, as shown in Table (1)



Variable	Honesty	Stability
Social consensus	0.91	0.87
Health compatibility	0.93	0.91
Family consensus	0.89	0.86
Emotional compatibility	0.88	0.90

It is clear from the table to high honesty and stability, as honest transactions ranged between (0.88 - 0.93). As for stability transactions, they ranged between (0.86-0.91) for all fields in the questionnaire, which are good and high transactions that confirm the sincerity and stability of the tool used in the research.

2-4 main Experience: The researcher performed the main experiment on the research sample on 03/01/2021

2-5 main Experience: The researcher uses the SPSS VER.21 statistical bag to extract the following data:

- Arithmetic mean
- Standard deviation
- T (Test)

3- Show and discuss the results:

3-1 Research results (social compatibility, health compatibility, family compatibility, emotional compatibility)

1- Study the differences between teachers and teachers in social compatibility.

Table (2) Average arithmetic, standard deviation, and calculated value (T) and its statistical significance of the teachers and teachers of physical education in social compatibility

Measurement	Teachers' meal		Teachers female		Collected T	level of significance
	M	S	M	S		
Social consensus	17.44	2.31	15.74	2.23	3.21	MORAL

It is clear from the table (2) that there are statistically significant differences between teachers and teachers at the level of 0.05 in social compatibility and for the benefit of teachers.



2- Study the differences between teachers and teachers in health compatibility.

Table (3) Average arithmetic, the standard deviation, the calculated value (T) and its statistical significance of the teachers and teachers of physical education in health compatibility.

Measurement	Teachers' meal		Teachers female		Collected T	level of significance
	M	S	M	S		
Health compatibility	16.63	2.31	18.28	2.32	4.33	MORAL

It is clear from the table (3) that there are statistically significant differences between teachers and teachers at the level of 0.05 in health compatibility and for the benefit of teachers.

3- Study the differences between teachers and teachers in family compatibility.

Table (4) Average arithmetic, standard deviation, and the value of (T) calculated and its statistical significance of the teachers and teachers of physical education in family compatibility.

Measurement	Teachers' meal		Teachers female		Collected T	level of significance
	M	S	M	S		
Family consensus	17.44	2.31	17.74	2.23	0.65	MORAL

It is clear from the table (4) that there are no statistically significant differences between teachers and teachers at the level of 0.05 in family compatibility.

4- Study the differences between teachers and teachers in emotional compatibility.

Table (5) Average arithmetic, standard deviation, and the value of (T) calculated and its statistical significance of the teachers and teachers of physical education in emotional compatibility.

Measurement	Teachers' meal		Teachers female		Collected T	level of significance
	M	S	M	S		
Emotional compatibility	14.02	2.31	17.12	2.23	5.23	MORAL

It is clear from the table (5) that there are statistically significant differences between teachers and teachers at the level of 0.05 in the emotional compatibility for the benefit of teachers.



3-2 Discussion of the results:

The results showed that there is a difference between teachers and teachers in the degree of social and personal compatibility, and that there are multiple factors that contribute to the decrease in social compatibility in teachers. These factors are in the family, school, curricula and other factors, and the impact of these factors has differed from school to school. In general, the results came in line with previous studies that showed the presence of statistically significant differences in social compatibility. Where the results showed that the social consensus of the teachers was higher than the teachers. This is in line with the results of a study (.).

This trend is mainly based on compatibility, as it is a social process based on the individual's keeping up with the standards of society and its cultural specifications, through his ability to lead with various responses that suit different positions and saturate his desires and needs, and this means that compatibility from the point of view of the owners of this trend reflects the individual's style in the face of life conditions and solution His problems.

As for the differences in healthy consensus, they were moral significance for the benefit of teachers. The results showed that the compatibility of the teachers was higher than the teachers, and these results are consistent with (Rashid, 2001 study), which showed the presence of statistically significant differences between males and females and for the benefit of males in health compatibility.

The results have shown that the family consensus does not have statistically significant differences between teachers and teachers, and this means the compatibility between the psychological entry and the social entrance, which includes family happiness that is represented in stability and family cohesion and the ability to achieve the demands of the family and the integrity of relations between both parents and between children, love, confidence and mutual respect between everyone Psychological compatibility extends to the safety of family relations with relatives and solve their problems. That is, the integrated approach that confirms the synergy of social structural demands with personal structural demands, and this is what is included in the continuous interaction between the person and his family. Relations with parents and the nature of the method of education adopted in the family, as well as the extent of acceptance and communication in the family, are essential indicators of psychological compatibility, adding to that healthy consensus and the individual's free diseases may make him accept to participate in life activities with all energy and seriousness to achieve his personal or social goals. So social consensus is the



process of adapting to himself with the social environment and integrating it in it and meeting its requirements or subjecting it to its circumstances, and it is generally that process in which a state of harmony and commitment in the individual's relations with his friends, family members, local environment and great society through which he can satisfy his needs with what society imposes It has the demands and obligations and the criteria and values that he will accept for him, and to achieve social compatibility, some conditions must be met. That is, in the sense that the individual accepts others as he accepts himself and puts himself in the place of others, meaning that he is able to think, feel and act in the same way that others understand.

B- That the individual tolerate tolerance with others disrupts their weaknesses and disadvantages and extends a helping hand to those who need help.

If we look at these trends in its interpretation of psychological compatibility, we will find that the psychological trend confirms that psychological consensus is achieved by satisfying the individual's biological, psychological and emotional needs, and this leads to hiding tension and pressure and feeling comfortable, satisfied and the ability to adapt his behavior and responses to circumstances, obstacles and reaching his motives By modifying his motives so that he can reach the satisfaction and psychological comfort.

As for the social interpretation, it sees that psychological consensus is only the result of amending the individual of his behaviors and responses, as well as his motives with the requirements of the social environment, so he fulfills itself and its impulsion within the social framework.

4- Conclusions and Recommendations:

4-1 CONCLUSIONS:

- 1- The presence of statistically indicative teams in the degree of social compatibility according to the type (teachers- teachers) at the level of 0.05 in favor of the teachers.
- 2- The presence of statistically indicative teams in the degree of health compatibility according to the type (teachers- teachers) at the level of 0.05 in favor of the teachers.
- 3- There is no statistically indicative difference in the degree of prisoners 'compatibility according to the type (teachers- teachers) at the level of significance of 0.05.



4- The presence of statistically indicative teams in the degree of emotional compatibility according to the type (teachers- teachers) at the level of 0.05 in favor of the teachers.

4-2 Recommendations:

- 1- The necessity of raising interest in psychological compatibility in the school environment for its importance and educational and educational reversions.
- 2- The necessity of establishing guidance training programs for teachers and teachers in general.
- 3- Attention to preparing indicative programs that may help enhance the interaction and psychological integration of middle school teachers.
- 4- Activating the role of scientific and sports clubs to improve the performance of teachers physically and mentally, because it has a positive impact on the attitudes and values of the individual as well as balance and general social psychological compatibility.

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THE EFFECT OF ACTIVE LEARNING ACCORDING TO THELIN'S MODEL SUPPORTED BY HABER MEDIA IN IMPROVING THE COGNITIVE ACHIEVEMENT OF FOOTBALL FOR PREPARATORY SCHOOL STUDENTS

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Abstract

The thesis aimed to prepare and apply educational units according to the strategy of active learning, according to Thelin model supported by hypermedia. The researcher used the experimental approach to suit the nature of the problem and the objectives of the research. The experimental approach is considered one of the best scientific research methods for solving problems in a practical way, which is defined as the objective observation of a specific phenomenon that occurs in a situation characterized by the exact accuracy of one or more variables. While the other variables (factors) are fixed. Where the researcher intentionally identified the research community from the students of the middle school of Ash-Shaheed Talib Al-Suhail for the distinguished students in the Directorate of Education of Baghdad Al-Karkh, the third for the academic year 2022-2023, whose number is 106 students. As for the research sample, it was chosen randomly and systematically (lottery), as it consisted of fifth grade preparatory students, with four divisions, Division A 35 students, Division B 35 students, Division C 34 students, and Division D 38 students. The systematic random method was used to determine the two research groups, as Division (A) was chosen to be an experimental group and Division (D) was a control group, and the lists of each group for research consisted of 16 students, and thus the research sample consisted of (32) students who constitute 40% of the research community. As this percentage is representative and real for the research community. The researcher conducted a pre-test for the skills under study, and educational units were implemented, at the rate of two units per week, the time of the unit was 45 minutes. After that, the post-test was conducted under the same conditions as the pre-test. The researcher used the spss statistical bag to obtain the results, which led the researcher to the conclusions that active learning according to Thelin's model supported by hypermedia is considered as a





collective investigation model that helps learners understand science positions and their interaction in the process of learning knowledge. Active learning according to Thelin's model has a proportional and consistent effect and is based on a scientific and effective method, which led to the student gaining experience as a result of the model's sequential and interrelated steps, increasing this experience and mastering knowledge. The recommendations are the most important interest in the strategy of active learning as an educational strategy in the lessons of physical education. Emphasis on benefiting from the positives of Thelin's model in organizing the content of the instructional unit as a new output for the physical education lesson.

Keywords : active learning, Thelin model, hypermedia , cognitive achievement.

Chapter One

1- Introducing the research

1-1 Introduction and the importance of research:

One of the important elements of modern education is the existence of a development in teaching methods through dealing with the material in an educational manner and presenting it in a scientific manner that enables students to understand, express and acquire the required skills by forming an appropriate learning environment that makes the student able to learn positively and self-creatively contributing to the educational process. As the acquisition of some skills requires the adoption of special strategies, mechanisms, methods and methods that give the learner an opportunity to be independent in his thinking and to make his decisions regarding the time and duration of learning and what he can benefit from for the purpose of learning the skill, which makes him an active and positive element in the lesson. Therefore, educators have called for the need for teachers to use models, methods and teaching strategies that allow the student to play an active role in the teaching and learning process so that he is not only a recipient, but also develops his thinking skills as a result of the cumulative experiences that the learner has and thus enables him to build a base of information that helps the learner understand the relationships between New and previous concepts and ideas. (1)

¹ Ismail Abd Zaid and Imad Toa'ma: Fundamentals of Teaching Physical Education. Dar Dijla for Printing and Publishing, Amman, Jordan, 2016, p. 34.



As a result, "many modern teaching models have emerged that emphasize the active role of the student in education, who performs many activities and practical experiences within the knowledge classroom. So that meaningful learning based on understanding takes place. Students' learning is a continuous creativity process in which they play the role of inventors and discoverers. It is also It emphasizes that the learner makes a mental effort to discover knowledge by himself. (2)

The Thelin model is one of these models in which the learner is active and effective, practicing investigation, discovery and searching for information through active participation individually or collectively within his small group to benefit from it in finding solutions to the research problem.

. "Instead of giving the learner the information as a ready-made grab-and-go piece, we prepare for him the appropriate and comfortable environment to discover and investigate the facts in order to reach new relationships and methods of solution that were not known to him before. This increases his tendency to learn the material and his desire to continue it, which develops in him different ways of thinking and gains him learning." Transferable to take advantage of in new situations. (3)

There is no doubt that the tremendous progress in the concept of educational technology, especially hypermedia, has had an impact on progress in the education process. As well as the use of methods and methods that depend on direct indoctrination. There is an interaction between the student and the educational material in raising the student's self-confidence through practical application. Which creates a clear mental image that can be understood, interpreted, and new insights and conclusions come out. As well as the essential role of cognitive achievement, which works to employ information in the student's mentality. Which helps to understand the information and the technical and educational steps of the skills, which in turn works to understand the process of learning skills in football. The importance of the research using the active learning strategy according to Thelin's model, supported by hypermedia, lies in the improvement of cognitive achievement. As this study contributes to the great

² Afrah Yassin Mohammad and Suzan Dhahir. The effectiveness of the multimedia program in the achievement and development of computer skills among tenth grade students in computer subject. Al-Fath Journal, University of Diyala, 2017, Volume 13, Issue 72, p. 34.

³ Wafaa Sweidan Ali: The effectiveness of the group investigation model in the achievement of the second intermediate grade students in biology and their skills in scientific thinking. A published master's thesis, College of Education / Ibn Al-Haytham, University of Baghdad, 2018, p. 57.

and effective auxiliary role in acquiring effective and constructive knowledge that includes interaction of the individual's cognitive, motivational and emotional resources. And the second aspect is teaching football vocabulary with an educational strategy and a model that uses educational technology to improve cognitive achievement in an appropriate manner for the research sample.

1-2 Research problem

Football is one of the team games that are taught within the cognitive curriculum of the subject of physical education within the physical education teacher's guide prepared by the Directorate General of Curricula of the Iraqi Ministry of Education. Through the specialization of the researcher in physical education and access to many previous researches and studies within the field of methods of teaching football, it became clear to the researcher that the subject of football is taught according to teaching methods used for a long time that do not take into account the development in the game of football and its cognitive curricula as a subject approved by Iraqi Ministry of Education. This led to the failure to give the theoretical aspect of the subject the appropriate importance and the formation of an achievement aspect among the students, which led to the fluctuation of their understanding of the theoretical aspects of the subject. In addition, some secondary schools lack modern electronic programs such as employing educational technology (hypermedia) and its advantages in an optimal way, with learning strategies that intend to rebuild knowledge and organize it in a manner commensurate with its cognitive and mental structure. In addition, the output of the educational unit for the current physical education lesson does not take into account the process of organizing the stages of presenting and explaining the material, and this also affects the learning of skills in a better way.

1-3 research objectives

- 1- Constructing a measure of cognitive achievement in soccer.
- 2- Preparing educational units using the active learning strategy according to Thelin model supported by hypermedia.
- 3- To identify the effect of using the active learning strategy according to Thelin's model supported by hypermedia in improving cognitive achievement.
- 4- Identifying the preference of the experimental and control research groups in cognitive achievement.

1-4 Research Hypotheses:

- 1- There are statistically significant differences between the results of the pre and posttest of the two research groups in the improvement of cognitive achievement and in favor of the post tests.
- 2- There are statistically significant differences between the control and experimental research groups in post-tests in improving cognitive achievement in favor of the experimental group.

1-5 areas of research.

1-5-1 The human field: a sample of fifth grade literary students in Talib Al-Suhail preparatory school for the distinguished students in the Directorate of Education of Baghdad Al-Karkh / the third for the cognitive year 2022-2023 AD.

1-5-2 The temporal field: from 10/2/2022 until // 2023.

1-5-3 The spatial field: The knowledge hall (computer lab) and the sports arena of the Ash-Shaheed Talib Al-Suhail Preparatory School for the Distinguished in the Directorate of Education of Baghdad / Al-Karkh, the third.

2- Research methodology and field procedures.

2-1 Research methodology.

The researcher used the experimental approach to suit the nature of the problem and the objectives of the research.

2-2 The research community and its sample.

The researcher intentionally selected the research community as it enjoys all the requirements of the study from the middle school of the martyr Talib Al-Suhail for the distinguished students in the Directorate of Education of Baghdad Al-Karkh, the third for the academic year 2022-2023, whose number is 106 students. As for the research sample, it was chosen by the regular random method (lottery). It consisted of students in the fifth literary grade, with four divisions, Division A of 28 students, Division B of 26 students, Division C of 27 students and Division D of 25 students. The systematic random method was used to select the two research groups. As Division (A) was chosen to be an experimental group and Division (D) a control group, and the lists of each group for research consisted of 16 students, and thus the research sample consisted of (36) students, who constitute 40% of the research community. As this percentage is representative



and real for the research community. The exploratory experiment was applied by selecting (15) students from (B) to represent the sample of the exploratory experiment for achievement tests and (15) students from Division C for the exploratory experiment from Division B for Huber Media.

They were excluded from the research sample, and 13 students who practiced football in clubs from the academic divisions were excluded, as shown in Table (1).

Table (1) It shows the classification of the sample and the numbers of the control and experimental groups

stage	number of classes	number of students in each class	number of excluded students		research sample	percentage of research sample
			practitioners	Exploratory experience		
Fifth Preparatory	A	28	2	—	16 Experimental	%40
	B	26	4	15 Cognitive achievement		
	C	27	3			
	D	25	4		16 controller	
total		106	13	15	32	

The researcher adopted the experimental design of two interrelated equivalent groups, ((as this design is based on the basis of random testing for the experimental group, taking into account following the same procedures when selecting the control group. The experimental group is measured before applying the research (program) and then the dimensional measurements are taken and the procedures are followed same with the control group without exposure to the independent experimental variable)) (4)

2-3 The means, devices and tools used in the research

It means the means and method by which the researcher can solve his problem, whatever those tools are like data, samples, devices, and it included the following:

⁴ Ismail Abed Zaid and Naseer Mozher Abbood: Topics in Scientific Research Methods. Dar Al-Atak for printing and publishing, Beirut, Lebanon, 2017, p. 74.



2_3_1 The means used in the research

- 1_ Arabic and foreign references and sources
- 2_ Use the (Autoplay) program to view videos and photos
- 3_ Examination nomination questionnaire as shown in Appendix (1)
- 4_ The Internet
- 5_ Test registration form (Annex 2)
- 6_ Personal interviews (Appendix 3)
- 7_ Data collection form and unloading of research information

2-3-2 The devices and tools used in the research

The researcher used the following devices to fulfill the research requirements

- 1- Acer laptop, factory tray number 1.
- 2- (1) Chinese-made Canon camera.
- 3- Plasma TV screen type LG, size 55, made in China, number (1)
- 4- Using an electronic program to display skills, photos and videos.
- 5- The outer preparatory yard.
- 6- Dry pens, 40 pens.

2-4 field research procedures

2-4-1 Cognitive achievement test:

Due to the absence of a test that measures the cognitive achievement of the variables of the current research, and for the purpose of conducting a post-test for cognitive achievement. An achievement test has been prepared that measures the desired purpose of the research. As the cognitive test was adopted by selecting from the type of multiple choice ((This type of vocabulary is the most flexible. It can be used in evaluating the achievement of educational goals from different cognitive levels)) (5).

2-4-2 Steps to implement the cognitive achievement test: (6)

Determine the purpose of the test:

This test aims to measure the cognitive achievement (knowledge and information) related to the academic vocabulary according to the physical

⁵ Salah El-Din Mahmood Allam: Educational Measurement and Evaluation in the Teaching Process. 2nd Edition, Dar Al Masirah for Publishing, Distribution and Printing, Amman, 2009, p. 97.

⁶ Mohammed Nasr El-Din Radwan: Introduction to physical education and sports analogy. Dar Al-Kitab for Publishing and Distribution, Cairo, Egypt, 2006, pp. 277-344.



education teacher's guide for the preparatory stage. It has been taken into account that the objectives of this test are consistent with the sample level.

Determine the test subjects:

The areas related to the knowledge outcomes of the fifth grade literary students were identified within the teacher's guide for the preparatory stage in football subject through analyzing the course descriptions of football subjects. The emphasis was on three vocabulary (game history, game law, and basic skills).

Determine the relative importance of the test axes:

The researcher intended to determine the relative importance of each axis of the test, based on the book of the physical education teacher's guide for the preparatory stage. The educational units for the vocabulary of history were two educational units, for the vocabulary of law four educational units, and seven educational units for football skills. This calculation of the number of educational units depends on the distribution of the subject's vocabulary and how it is taught by the football teacher in middle schools, according to the schedule and plan set for the football subject in the approved curriculum. Therefore, the number of educational units for the curriculum is thirteen educational units, as shown in Table (2).

Table (2) The relative importance of the cognitive test axes

No.	axis	number of units	percentage
1	Football history	2	%15
2	Football law	4	%31
3	Football skills are being researched	7	%54
4	total	13	%100

After that, a questionnaire was prepared containing a set of behavioral goals formulated from the three items above. Appendix (3) was presented to the experts to indicate the suitability of formulating behavioral goals for the domains (knowledge, understanding and application). The reason for selecting only the first three levels is due to the fact that the categories of the mental field are

gradual in difficulty and that the student in the preparatory stage cannot analyze, compose and evaluate without knowledge, understanding and application. (7)

Then the researcher prepared a specification table showing the number of educational units for vocabulary (game history, game law, and basic skills) and the percentage of content. Then the relative weight of each level of knowledge, understanding and application was determined based on the behavioral goals questionnaire that was presented to the experts. Table (3) shows the table of specifications.

Table (3) Table of specifications for the cognitive test items for football

Content			Objectives			total
Topics	number of units	content ratio	knowledge 25%	understanding 25%	app 50%	
Game history	2	%15	2	2	3	7
Law of the game	4	%31	3	3	6	12
Football skills	7	%54	5	5	11	21
Total	13	%100	10	10	20	40

Formulation of test vocabulary:

The researcher intended to formulate the test items in an initial form, and there were (40) forty items divided into the three test axes. The researcher took into account that each word has one specific meaning. And that the language of each vocabulary be correct and avoid difficult vocabulary and avoid words that carry more than one meaning.

Determine the type of questions:

After formulating the vocabulary in its required form, it was arranged. The vocabulary of each axis is put together in the test. The researcher chose one type of question, which is multiple choice (3) three possibilities. The following conditions were taken into account in the test questions (comprehensiveness, objectivity, accuracy, and suitability for the level of students).

⁷ Walid Al-Rahahleh and Nart Shoka: A comparative study of the knowledge outcome in the field of physical fitness among students of the Faculty of Physical Education at the University of Jordan and Yarmouk University. Yarmouk Research Journal, Volume (23), Issue (4), Al-Yarmouk, 2007, pg. 45.



2-4-3 Test instructions:

The instructions for the test were developed, as the students were asked to carefully read each question as well as the answers, and to choose one answer from among the answers, and not to leave any question unanswered, and that each question had one mark from among the answers.

2-4-4 Validity of the initial copy of the cognitive achievement test:

The test was presented in its initial form to the experts in the field of football, measurement and evaluation, Appendix (5), in order to ensure that the test is suitable for the level of the students. Personal interviews were also conducted with some experts (see Appendix 6) to ascertain the validity of the test items and the extent to which they measure what they were designed for. The number of test items in its initial form was (40) forty items, and after presentation to the experts, they reported that some wording had been amended, and the number of test items became (40) forty items.

2-4-5 Exploratory Experiment (Cognitive Achievement Test)

The test was applied in its initial form to a number of group B students, numbering (16) students from the first academic year in the Department of Physical Education in the College of Basic Education - Al-Mustansiriya University, on / / 2022. The purpose of this experiment was the following:

- 1) Ensure that the paragraphs are clear to the interrogated person.
- 2) Ensure the ease or difficulty of the test items in order to rephrase them.
- 3) Preparing the final image for the test items.

The students' answers were corrected on the basis of giving one mark for the correct answer for each item in the test, and zero for the wrong answer, noting that the total test score is (40) marks. Then, after the exploratory experiment, the test became in its final form (40) forty items, which came as follows: date (7) items, law (12) items, and skills (21) items. The specific way to answer.

- Analysis of test items: After the researcher conducted the exploratory experiment, the purpose of it was also to calculate the coefficients of ease and difficulty. The researcher used the following equation to calculate the coefficient of ease.



The correct answer to the question (p)

$$\text{Ease factor} = \frac{\text{Correct answer to the question (p)}}{\text{Correct answer + wrong answer (y + x)}}$$

Since r = the number of correct answers, x = the number of incorrect answers

The relationship between ease and difficulty is a direct inverse relationship, i.e.:

Ease coefficient = 1 - Difficulty coefficient.

Difficulty coefficient = 1 - Ease coefficient

Based on the foregoing, the ease coefficient was calculated for the test items as a whole, and Table (4) shows the ease and difficulty coefficients for the test items so that we exclude each item that gets an ease score of less than 20% or less and a difficulty score of 80% or more.

Table (4) Coefficients of ease and difficulty of cognitive test items

No.	Difficulty coefficient	Ease factor	No.	Difficulty coefficient	Ease factor	No.	Difficulty coefficient	Ease factor
1	0.69	0.31	15	0.71	0.29		0.46	0.54
2	0.77	0.23	16	0.74	0.26	30	0.71	0.29
3	0.71	0.29	17	0.51	0.49	31	0.54	0.46
4	0.54	0.46	18	0.71	0.29	32	0.69	0.31
5	0.43	0.57	19	0.66	0.34	33	0.43	0.57
6	0.29	0.71	20	0.51	0.49	34	0.74	0.26
7	0.74	0.26	21	0.77	0.23	35	0.71	0.29
8	0.69	0.31	22	0.79	0.21	36	0.71	0.29
9	0.71	0.29	23	0.49	0.51	37	0.45	0.55
10	0.77	0.23	24	0.74	0.26	38	0.40	0.60
11	0.74	0.26	25	0.57	0.43	39	0.57	0.43
12	0.40	0.60	26	0.60	0.40	40	0.74	0.26
13	0.69	0.31	27	0.63	0.37			
14	0.69	0.31	28	0.71	0.29			

It is clear from the previous table (5) that:

The ease coefficient ranged between (0.29, 0.80), and the difficulty coefficient ranged between (0.20, 0.71). The paragraph difficulty index is evaluated according to the levels set by Abel 1979.



Table (5) Paragraph difficulty index according to the levels set by Abel 1979.

difficulty indicator	correction
%71 to 79%	An Item can be accepted if it has an acceptable discrimination indicator
from 30% to 70%	The Item is good
from 20% to 29%	An Item can be accepted if it has an acceptable discrimination indicator

Discrimination coefficient:

The index (evidence) of discrimination is known as ((the index of the validity of the paragraph, which is one of the important measures for the analysis of the paragraph)) to calculate the discrimination coefficient for the test items, the researcher used the following equation:

Variance = ease coefficient x difficulty coefficient.

This is a statistical procedure to identify the discrepancy between good and not-so-good questions (distinguishing between hard and easy degrees).

Table (6) Coefficient of discrimination for a cognitive test

No.	coefficient of excellence	.No	coefficient of excellence	.No	coefficient of excellence
1	0.213	15	0.205	29	0.248
2	0.177	16	0.192	30	0.205
3	0.205	17	0.249	31	0.248
4	0.248	18	0.205	32	0.213
5	0.245	19	0.224	33	0.245
6	0.205	20	0.249	34	0.192
7	0.192	21	0.177	35	0.205
8	0.213	22	0.160	36	0.205
9	0.205	23	0.249	37	0.240
10	0.177	24	0.192	38	0.240
11	0.192	25	0.245	39	0.245
12	0.240	26	0.240	40	0.192
13	0.213	27	0.233		
14	0.213	28	0.205		



It is clear from the previous table (6) the following: The cognitive test items have an appropriate discrimination power, ranging between (0.160, 0.249). Accordingly, the test can be used as a tool to evaluate cognitive achievement. ((The discrimination index, if it is above 0.40, means that the paragraph has a good ability to distinguish)) (Nasr Al-Din: 329: 2006).

Determine the time required for the test:

The time taken by the first student + the time taken by the last student

2

Thus, it was possible to determine the test time and it was 15 minutes.

3-4-5 Scientific Transactions of the Cognitive Test:

A- Test stability:

((The term stability refers to the great confidence in the test's assessment of the students' marks, as the mark obtained by the student (X) will be the same mark or close to the mark that the student will obtain in the next time or times)).⁽⁸⁾

The stability coefficient was extracted using the split half method. As the test was applied to a sample of the research community, represented by division (B), numbering (20) students, dated / / 2022, and for one time, then dividing the students' answers into two equal halves, then calculating the correlation coefficient between their answers. The stability value of the test was (0.88), which is a high stability coefficient. Since the stability coefficient in this way does not measure the overall homogeneity of the test because it is the stability of half of the test, the (Spearman) equation was used. By dividing the test into two parts only, so that the first part consists of the odd scores and the second part of the even scores of the test. The stability coefficient after correction was (0.74), which is also a high stability coefficient. (Hedges) indicates ((that the stability coefficients for non-standardized tests are considered good if they reach (0.68) or more)) .⁽⁹⁾

⁸ Mustafa Al-Kamasha and Al-Bawaliz Muhammad: Measurement and distribution in special education. Edition 2: Dar Al-Fikr for printing, publishing and distribution, Amman, 2017, p. 69.

⁹ Ali Samoom: Principles of statistical methods in physical education. 2nd edition, Al-Mohimin Press, Baghdad, 2012, p. 88.



b- Validity of the test:

The validity of the test is one of the important means of judging its validity. An honest test is the one that measures what it was originally set to measure, or the one that measures what it is intended to measure, and for nothing else. In order to verify the validity of the test, reliance was made on the validity of the content, which means ((the extent to which the test covers the material or the curriculum and the objective objectives, and is directly proportional to that. The more the test covers the material and the objectives, the higher the validity and it becomes called that it has a high degree of content validity. It is useful This kind of honesty in achievement tests).⁽¹⁰⁾

The veracity of the arbitrators was extracted through the percentage of their agreement on its paragraphs. As the percentage of experts' agreement on its paragraphs is (80.28%), and (Bloom et al., 1983) indicates that ((the researcher must obtain a percentage of experts' agreement on the validity of the paragraphs and the possibility of making amendments at a rate of not less than 75%).⁽¹¹⁾

C-Objectivity:

Objectivity is a form, form, or form of steadfastness, and it is known as estimated steadfastness, and Objectivity is known as ((the degree of agreement between the estimators of the degree)).⁽¹²⁾. True-false and multiple-choice tests are among the tests that have a high degree of objectivity. In order to calculate the objectivity of the test, two of the arbitrators intended to estimate the degree of the test (i.e. the judgment on the performance of a number of examinees, 18 students) at the same time, as each judge was far from the other so as not to be affected by his opinion. The correlation coefficient was calculated between the evaluations of the arbitrators, and the value of the objectivity of the test was (0.85).

3-4-8 Pre-test (equivalence).

In order for the division of the two groups to be unbiased to a group, and in order to preserve scientific objectivity, an equivalence process was conducted in terms of cognitive achievement on // 2022 between the two research groups to adjust the variables. And as shown in Table (7).

¹⁰ Saleh Mohammad: Introduction to Research in Behavioral Sciences: 1st edition, Riyadh, Obeikan Library, 1995, p. 93.

¹¹ Bloom, Benjamin Bloom and others (translated by Muhammad Amin Al-Mufti and others). Assessment of Student's Collective and Formative Education, Macrohill House, Cairo, Egypt, 1983, p. 126.

¹² Amin Saati: Simplifying the writing of scientific research. The Saudi Center for Strategic Studies, Riyadh, 2008, p. 168.

Table (7) The results of the mean scores of the equivalence test for the control and experimental groups in the cognitive achievement of football.

significance level	calculated t value	experimental group		control group		measuring unit	dependent variables
		N	H	N	H		
non-significant	1.17	3.23	26.94	3.13	25.62	degree	Cognitive achievement

* The tabular t value was (2.04) under the level of significance (0.05) and a degree of freedom of 30. Table (6) shows that the calculated (t) values for cognitive achievement tests are at the level of significance (0.05) and under a degree of freedom (30). Which indicates the achievement of the principle of equivalence between the two research groups in cognitive achievement. As well as adopting these results for the pre-test of the two research groups.

3-4-9 Designing the education unit according to active learning using Thelin model supported by hypermedia:

When the researcher completed the exploratory experiments and the pre-tests, he prepared a special educational curriculum for the experimental group members. The proposed educational curriculum was presented to the experts (Appendix 7) for the purpose of reviewing the curriculum, amending it, indicating its suitability, and adding what they deem appropriate. After that, the application of the curriculum began on/..../ 2022 for the two groups. The experimental group took the lesson at 8:30 am, and the control group took the lesson at 10:30. The curriculum included (24) educational units, at the rate of one educational unit per week, with a time of 45 minutes for each educational unit, according to the time of the football lesson.

3-4-10 The educational unit is based on active learning according to Thelin’s model supported by hypermedia:

The experimental group for active learning according to the strategy of Thelin model supported in hypermedia, if the stages of the model are carried out in six stages, Appendix (2), which are:



1- Survey:

At this stage, the subject of the survey is chosen, then the students are divided into groups. Each group consists of (2-6) students. Then the sub-topics are distributed to these groups.

2- Survey planning:

In this step, students in each group formulate the topic or problem in the form of a question or several questions, and plan together how to answer the questions.

3- Executing the survey:

Some duties are performed. Through each student within his group collecting the necessary information from its various sources, to benefit from it in developing solutions to the problem at hand.

4- Writing the final report:

It includes presenting the final results reached by the groups, which are in the form of a practical presentation performance or in the form of a report.

5- Submission of the final report:

After completing the preparation of the final report by the groups, each group presents it to all students in the class, for the purpose of interest among them. ((Each group carries out the exercise according to their abilities and capabilities))

6- Calendar: and it is through

- * Evaluation of the performance of each student within his group by the teacher.
- * Each group presents two or three questions, then evaluates the answers provided by the students of the other groups to the questions it formulated.. such as:

- What are the technical steps to perform the suppression skill?

How do we distinguish between the position of the player's foot and the supporting foot in the dribbling skill?

- How can the degree and handling skills be performed with one educational exercise?

Assign students to do other educational exercises by adopting Thelin's problem-solving model.

As for the control group: the traditional method was taken to teach this group.



Some scientific teaching notes for the experimental group

1- The subject teacher, with the educational activity, uses educational technology to explain and display the skill given to the students through the application of the hypermedia program prepared by the researcher, who works on dividing the educational material and presenting it in more than one technological format, while providing an aspect of theoretical information about the history of the game and some of the rules of the game.

2- The researcher prepared an electronic program to explain and display the audio and visual skill using the Autoplay system, which works to provide the skill to students through:

A- Showing educational films for the skill in full motion and slow motion

b- Provide static and moving pictures of the skill implementation mechanism

C - Providing students, through the program, with common mistakes when implementing the skill

D - Providing the learners with the audio and visual pattern while performing the skill

3- The exercise time and the rest time were calculated according to the defining units applied by the researcher at the beginning of the educational program.

Within the Hypermedia program, the researcher used the educational units in accordance with the strategy of active learning in explaining and presenting the educational units for the skills under study.

It is worth noting that such applications and programs have been used in many studies and research that used computers in learning methods.

Where the (AutoPlay) program consists of the main interface, which is represented by a picture of a soccer ball on the field. The interface is preceded by the title (Learning the principles of some soccer skills), and in the middle of the interface is the name of the supervising professor, followed by the name of the researcher.

And when you press the button to enter the program, another interface will appear to us that contains a video of an enthusiastic sports anthem. After the end of the anthem, you will move to the interface of the educational units. As this interface consists of three pictures of famous players, each of them performs one of the football skills under discussion, and these pictures represent the keys to



entering the skill that we need. When clicking on any of the four images, the interface for the skill to be explained and learned will appear.

3-4-12 Implementation of the main research experiment:

After conducting exploratory experiments on part of the research sample students and avoiding the obstacles and difficulties that faced the researcher. The main experiment was conducted for the research, which extended.../.../2022 to.../.../2032 for the two research groups.

3-4-13 Post-test:

The post-test was conducted on 11/6/2012 for the achievement side, at ten o'clock in the morning. The researcher took into account, as much as possible, the provision of the same atmosphere that was applied to the pre-test, and from all spatial aspects, devices, tools, and the work team.

3-5 Statistical methods: The researcher used the Statistical Bag for Social Sciences, version 21 of SPSS

Fourth Chapter

Presentation, discussion and interpretation of the results:

4-1 View Results:

4-1-1 There are statistically significant differences between the results of the mean scores of the pre and post measurements for the students of the control and experimental research groups in cognitive achievement and skill performance in the football skills under study and in favor of the post measurement.

Table (8) The results of the average scores of the pre and post measurements of the students of the control group in cognitive achievement in football

Variables	H Pre	H Post	H for differences	N for differences	No. calculated
Cognitive achievement (degree)	25.63	33.18	7.56	6.56	4.61

*At a significance level (0.05), a degree of freedom of 15, and a tabular degree (2.13).



It is evident from Table (8) that the calculated (t) value for cognitive achievement is 4.61, which is greater than the tabular (t) value (1.753). Which indicates that there are statistically significant differences between the results of the pre and posttest and in favor of the post test of the control group.

Table (9) 4-1-2 The results of the average scores of the pre and post measurements for the students of the experimental group in cognitive achievement in football

Variables	H Pre	H Post	H for differences	N for differences	No. calculated
Cognitive achievement (degree)	26.94	39.56	13.62	4.53	12.03

*At a significance level (0.05), a degree of freedom of 15, and a tabular degree (2.13).

It is clear from Table (9) that the calculated (t) value for cognitive achievement 12.03 is greater than the tabular (t) value (1.753). This indicates that there are significant differences between the results of the pre and posttest and in favor of the post test for the experimental group.

4-1-3 There are statistically significant differences between the results of the mean scores of the two measurements

The two dimensions of the control and experimental groups of cognitive achievement and skill performance in football skills under study, in favor of the dimension measurement of the experimental group.

Table (10) The results of the average scores of the two post-measurements of the control and experimental groups of cognitive achievement in football

Variables	control group		experimental group		t value calculated
	H	N	H	N	
Cognitive achievement (degree)	33.18	4.52	39.56	2.25	5,84

*At a significance level of (0.05), a degree of freedom of 30, and a tabular degree of (2.04).



It is clear from Table (10) that the calculated (t) value for cognitive achievement is 5.84. For the skills under study (ball control 2.02, dribbling 4.77, suppression 2.39, handling 4.60, and scoring 4.27), it is greater than the tabular value of (t) (1.697).

Discuss the results:

4-2-1 Discussing the results of the pre and posttest for the experimental group

It is clear from Table (9) that there are statistically significant differences at the level (0.05) between the means of the pre and post measurements of the experimental group in cognitive achievement in football and in favor of the post measurement. This indicates the progress of the experimental group as a result of using active learning according to Thelin's model supported by hypermedia. The researcher attributes that the active learning strategy used in teaching has contributed significantly to raising their motivation for achievement and study. As most of them began to learn through collaborative groups in which a clear role appeared for each member of the group. There is no longer a student who feels indifferent to what is happening in the classroom; Because absent-mindedness, distraction and boredom have no place in light of pairing learning as one of the active learning strategies. ⁽¹³⁾ The researcher also confirms that the active learning strategy has contributed to raising the level of self-confidence among the experimental group members. And that is through the sense of each one of them equal opportunity to learn and respect for his being.

4-2-2 Discussing the results of the post-test between the control and experimental groups.

As shown in Table (10), there are statistically significant differences at the level of (0.05) between the two post-measurements of the control and experimental groups in favor of the experimental group in the results of the cognitive achievement test in football under study. This indicates that the independent variable of the experimental group represented by active learning according to Thelin's model supported by hypermedia was more effective and positive in cognitive achievement. The use of active learning in the educational process leads

¹³Mohammad Sabih Hassan: The effect of educational methods according to the active learning strategy in learning some basic skills in football. Published research, Maysan Journal of Physical Education Sciences, Maysan University, Issue 15, Volume 15, 2017 101.



to students being aware of the learning process and having the opportunity to personalize educational experiences to increase understanding, recall and application. ((Active learning emphasizes the development of students' skills and abilities, and the students' investigation of their trends and abilities, in exchange for less emphasis on the transfer of information that prevails in the imperative style of teaching. The learners' previous knowledge is formed. One of the most important features of active learning is also the use of flexibility in teaching strategies. The existence of a strategy Appropriate teaching is what may be appropriate to the abilities and capabilities of the learners, mental and skill in the educational situation). (14)

Also among the positive results of active learning is the positive impact on students in increasing knowledge achievement in several aspects, including increasing their motivation and attention, developing positive attitudes towards the educational material, and increasing their interaction within the lesson. The nature of active learning depends on the activity of the learner and the building of knowledge by himself, where the learner searches and investigates, until he reaches the concepts himself by working within groups that contribute to the spirit of cooperation among the members of the group. (15)

And that the progress made to the effect of active learning according to Thelin's model was proportional and consistent and built in a scientific and effective manner. This led to the student gaining experience as a result of the model's sequential and interrelated steps. As a result, this experience increased and mastery of the knowledge associated with skill learning. As the student has a good mental and cognitive perception as possible to understand and remember the correct performance sequence. As well as the continuation of the feedback provided by the members of the same group. As a result, the practice of work is repeated several times, which helps to gain experiences from each other and establish the correct performance and try to reach it. This led to increased cooperation and interaction between students to help each other, which helped to take into account individual differences and progress and improvement for the members of this group.

¹⁴ Iyad Salih Salman and Suzan Salim Daoud: The effect of using two active learning strategies, jigsaw. Solving problems in learning some balance beam skills in artistic gymnastics. Published research, Al-Qadisiyah Journal of Physical Education and Sports Sciences, Volume 18, Issue 1, 2018, p. 23.

¹⁵ Fatima bint Khalaf Allah Omair: The effect of active learning on the development of innovative thinking and academic achievement in science among third-grade female students in government schools in Makkah Al-Mukarramah. Published PhD thesis, Department of Curricula and Teaching Methods, College of Education, Umm Al-Qura University, Saudi Arabia, 2010, pg. 67.



The use of the commanding method in teaching did not help the student to improve the educational level. Therefore, various ways and means have emerged to increase the effectiveness of education and take into account the individual differences between the different levels. Where the question is no longer from the minority of learners who can succeed, but how to make large proportions of learners reach the level of upgrading. ((Modern education replaced traditional education, which was based on an equation whose side consists of one teacher in front of a large group of learners, as this equation was reflected in modern education to a student who listens, watches, and participates in the educational process)) (16)

The researcher also confirms that the steps of Thelin's model, which begin with defining the subject of the survey, dividing the students into groups of 2-6, planning the survey among them according to their capabilities within the group, implementing it, preparing reports, presenting them, and then evaluating them, were new to the students, which led to removing the boredom factor from them and instilling in them the spirit of active participation. . Also, the success of the performance in the first attempts of the skills and the students' knowledge of the result of their performance, whether through the feedback they got from the teacher or the internal (self) feedback, increased their enthusiasm and motivation to continue performing. Which reflected on the development of basic skills positively and effectively. ((Because the interest in increasing the repetitive attempts and providing the learner with different patterns of feedback, commitment, urging, encouragement and diversification in performance helps beginners to learn and acquire the outputs of the learning process)) (17)

The researcher also confirms that the active learning strategy according to Thelin's model, supported by hypermedia, worked on learning the skills under study in a positive way. As the Hyper Media program provides the student with feedback that helps him diagnose and identify errors. As well as facilitating the retention of information from the details of the technical performance of skills for the largest possible period in memory. ((The use of hypermedia leads to an

¹⁶ Najah Mahdi Shalash: Learning and motor development of mathematical skills. Al-Aik Design and Printing, Baghdad, 2011, pg. 25.

¹⁷ Adil Kamel Shabib: The effect of teaching according to Thelin model on the achievement and scientific thinking of second-grade intermediate students in Physics. A published master's thesis, College of Education, Ibn Al-Haytham, University of Baghdad, 2018, p. 131.



increase in the persistence of the effect of the information that students learn and its consolidation in their minds, which is reflected in the learning process)) (18).

Thus, the researcher confirms that the positives of the active learning strategy according to the self-supported Thelin model with hypermedia made the differences a significant sign in favor of the experimental group because of the interesting content of the program and what it contained (sound effects, music, written texts, still and moving images, clips from educational films, audio recordings, etc.), which contributed In participating in learning the skills in question ((the super-interactive multimedia contributes to better understanding and comprehending the shape of the skill, the path of movement, the different stages of performance, and the technical points, whatever the impact on learning the skill)). (19).

Thus, the researcher attributes that the educational units prepared according to the strategy of active learning according to Thelin's model, supported by hypermedia, helped students to link information and gave them more room to understand and remember that information. As memory related to information can link several functions of human memory, it is an appropriate tool for presenting skills that make them capable of meaningful associations between the ideas that are going on in their mind. ((To provide a good educational environment through the availability of hypermedia that works on using all the senses of the students and stimulates their motivation towards the education process. Thus, the students appear to have a positive role in obtaining information about the motor performance of football skills and the ability to retrieve that information in any At any time, as well as presenting information about skillful performance in an attractive and interesting way to students, and dealing with details of all technical and educational aspects of performance, as well as clarifying deficiencies and mistakes during the performance of football skills). (20)

¹⁸ Mohammed Saad Zaghloul (and others): Design and production of a computer program prepared with hypermedia technology and its impact on learning aspects of the skills of hitting the ball with the head for students of the Faculty of Physical Education for Boys in Tanta. Published research, theories and applications volume, No. 48, Faculty of Physical Education for Boys, Abu Qir, Alexandria, 2003, p. 121.

¹⁹ Hassan Ibrahim Ali: The effectiveness of using some educational technology methods on learning football skills for students of the Faculty of Physical Education in Zagazig. PhD thesis, Department of Theories and Applications of Team Sports, Faculty of Physical Education, Zagazig University, Egypt, 2007, p. 79.

²⁰ Mustafa Abdel Qader Al-Jilani: The design of the multimedia system and its impact on learning some soccer skills for beginners. Unpublished PhD thesis, Faculty of Physical Education, Menoufia University, 2000, p. 178.



Chapter Five

5- Conclusions and recommendations

5-1 Conclusions.

- 1- Active learning according to Thelin's model, supported by hypermedia, is considered as a group investigation model that helps learners understand science positions and their interaction in the process of learning knowledge.
- 2- Active learning according to Thelin's model, which has a proportional and consistent effect, and is built in a scientific and effective manner. Which led to the student gaining experience as a result of the model's sequential and interrelated steps, and increasing this experience and mastering the knowledge associated with learning the skill, as the student has a good cognitive perception.

3-5-2 Recommendations.

- 1- Paying attention to the active learning strategy as an educational strategy in physical education lessons.
- 2- Emphasis on benefiting from the positives of Thelin's model in organizing the content of the teaching unit as a new output for the lesson of physical education.
- 3- Paying attention to educational technology and hypermedia programs in facilitating the process of learning motor skills, especially in the early stages of learning, to reduce errors.

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ESSENCE AND PLACE OF COMPARATIVE PEDAGOGY IN THE SYSTEM OF PEDAGOGICAL SCIENCES

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ANNOTATION

In the article, the development stages and new trends of comparative pedagogy in connection with the processes of integration in education are outlined. The tasks of comparative pedagogy to determine the positive and negative aspects of the development of education in different countries, to study the socio-political and economic conditions that determine the occurrence of these phenomena, to determine how it affects the social development of the region and the whole world, and to forecast the consequences of the impact are analyzed.

Key words and phrases: comparative pedagogy, new trend, socio-political, economic conditions, forecast.

INTRODUCTION

The science of education cannot develop in isolation from world experience: like other areas of knowledge and social practice, the sphere of education is subject to general trends and developed patterns. In this regard, it seems relevant to assess the existing teaching experience from the standpoint of modern requirements, rethink it, and find ways to effectively use advanced ideas in domestic teaching practice. One of the possible ways to find such ways is to study foreign pedagogical experience in the field of higher pedagogical education. Comparative pedagogy is a field of pedagogical science that studies in comparative terms the state, patterns and trends in the development of pedagogical theory and practice in various countries and regions of the world, the correlation of all their general trends, national and regional specifics, identifies ways and forms of mutual enrichment of national educational systems through the use of them of foreign experience.

LITERATURE ANALYSIS AND METHODOLOGY

The term "comparative pedagogy" was first introduced into scientific circulation by the French scientist Marc Antoine Julien in his brochure On the Sketch and



Preliminary Notes to the Work on Comparative Pedagogy (1817), where an analysis of the school and pedagogical experience of France and Switzerland was given. Under this term M.A. Julien understood:

practical activities of institutions involved in the comparative study of methods of education and upbringing;

pedagogical theory is the result of a comparative study of pedagogical practice in different countries.

In addition to the term "comparative pedagogy", others are currently used. In English-speaking countries (USA, Great Britain, Australia, Canada, etc.), the term "comparative education" has become entrenched, in Germany the term "the science of comparing educational systems" has become widespread. As a synonymous concept in the scientific literature, the term "comparative studies" is found (from the Latin Comparare - to compare). In domestic pedagogy, preference is given to the term "comparative pedagogy", since it most adequately reflects the essence of this science. In this regard, the argumentation of the French comparativist A. Wexliar seems to be conclusive, who noted that "although educational systems are compared, the method of comparison always has the character of scientific analysis, in this case pedagogical, which is why the term "comparative pedagogy" is most acceptable."

What is the subject of comparative pedagogy? Attention to this issue is not accidental, since a clear definition of the subject determines one or another direction of research.

American comparativists believe that the subject of comparative pedagogy is the educational systems of various countries of the world in all the variety of their manifestations.

The English scientist N. Hans believes that the main subject of comparative pedagogy as a field of scientific knowledge is the study of factors influencing the development of education systems.

A number of other foreign scientists (G. Noah, B. Holmes and others) are convinced that comparative pedagogy is called upon to play a huge role in determining educational policy and reforming education.

Russian comparativist A.N. Dzhurinsky points out that comparative pedagogy is designed to study education and upbringing in the modern world in comparison, constructing theoretical models.

The author is impressed by the point of view of the American comparativists, who, in our opinion, define the subject of comparative pedagogy the closest and



most accurately. It is educational systems in all the diversity of their manifestations that are the subject of this science.

Central to the discussions is the question of whether comparative pedagogy is an independent scientific discipline or an applied branch of pedagogical knowledge. Scholars are divided. The English scientist N. Hans believes that comparative pedagogy is an independent science. The same point of view is shared by the French scientist A. Veksljar, the Russian comparativist B.L. Wulfson.

Another French specialist, M. Debess, is convinced that comparative pedagogy is part of general pedagogy. The Englishman J. Lowrys insisted that comparative studies are part of the theory of education, analyzing the theory and practice of different countries and cultures.

DISCUSSION

By itself, the comparison of educational systems does not yet mean their registration in the branch of pedagogical science. Only the definition of goals, objectives, research methods, problems turn individual studies into an independent branch of science.

Stages of development of comparative pedagogy

The Encyclopedia of Comparative Pedagogy and National Education Systems (1988) provides the following periodization of the development of comparative pedagogy, proposed by the American comparativists G. Noah and M. Eckstein.

- The first stage in the development of comparative pedagogy is called “pre-scientific”, or the period of travel notes”. It is characterized by the fact that, having returned from wanderings, in oral or written form, travelers told their compatriots about the culture, traditions and customs of other peoples, their system of educating youth.
- The second stage (the first half of the 19th-80s of the 19th century) is associated with the name of M.A. Julien, who was the first among Europeans to point out the importance of collecting information about the education systems of other countries, introduced the term "comparative pedagogy" into scientific circulation, substantiated its tasks and methods. During this period, the practice of studying educational systems in Europe became widespread. Many public figures and teachers studied and described the foreign experience of education (K.D. Ushinsky, L.N. Tolstoy (Russia), M. Arnold (England), etc.). During this period, terminology is developed, attempts are made to outline a range of problems for study.



- The third stage (late 19th - early 20th century) is characterized by the emergence of international organizations involved in comparative pedagogical research. The role of the coordinating center is played by the International Bureau of Education. Specialized periodicals "International Yearbook of Upbringing and Education", "Yearbook of Education" (USA), "International Pedagogical Journal" (Germany) are published. Although research is predominantly descriptive, the circle of scholars involved in comparative pedagogy is steadily growing, the range of problems studied and the list of countries are expanding. In the 1898/99 academic year in the United States, at the Pedagogical College of Columbia University, a course of lectures called "Comparative Pedagogy" was given for the first time.

- At the fourth stage (the first half of the 20th century) there is an intensive development of the methodological foundations of comparative pedagogy, an understanding of the subject, goals and objectives of this science, its problem field. In 1918, the first book on this topic was published in the USA - "Comparative Pedagogy" by P. Sandiford, in 1933 another major publication "Studies in Comparative Pedagogy" by L. Kandel was published. Fifteen years later, in 1949, in England, N. Hans published the book Comparative Pedagogy. All three of the above-named works today are rightfully considered classics. For a century ahead, they define the subject of comparative pedagogy, its tasks as a science, the problem field of comparative pedagogical research and the methodology for conducting them.

- The fifth stage (the second half of the 20th – the beginning of the 21st century) is marked by the strengthening of links between comparative pedagogy and other social sciences (philosophy, history, sociology), and the widespread use of their methods in comparative pedagogical research.

National and international organizations, research centers dealing with the problems of comparative pedagogy are being created in the world:

European Society for Comparative Pedagogy (London, 1961);

Society for Comparative Pedagogy (USA, 1956);

Institute for International Pedagogical Research (Frankfurt am Main, Germany);

Institute for Comparative Pedagogy (Salzburg, Austria).

In a number of universities around the world there are departments of comparative pedagogy, a course of lectures on this discipline is given to students as a mandatory course in pedagogical streams.



In many Western countries, specialized journals are published on the problems of education and upbringing in the world - Comparative Education, Comparative Education Review, International Review of Education, Compare, etc.

The development of comparative pedagogy in the 20th century is determined by a number of concepts and ideas. Until the 20th century, specialists saw the meaning of comparative pedagogical research in studying foreign educational practices and introducing its individual elements into the national education system to enhance its effectiveness. At the same time, many scientists believed that the mechanical transfer of the best examples of educational practice from one country to another is either ineffective or impossible due to different socio-economic and cultural conditions. At the beginning of the twentieth century, another concept is being developed, according to which, by studying the educational system of another country, we better understand its political and economic system, the mentality of the people, their traditions, and the general model of development. This concept, advanced by Kandel (1933) and Hance (1949), is the basis of much research in comparative studies today. In the twentieth century the development of comparative pedagogy was influenced by theories and concepts of the social sciences (philosophy, history, sociology, psychology, etc.). The point of view that considers the development of education as the contribution of the nation to the social, economic and political future has received universal recognition.

CLEAR CONCLUSIONS AND PRACTICAL SUGGESTIONS

The theory of convergence had a great influence on comparative pedagogical research. In a comparative study of the experience of developing education in countries with centralized and decentralized education systems, specialists concluded that in the coming decades there will be a convergence of educational systems. Life has proven this assumption.

The global educational space is becoming a reality thanks to globalization processes. It brings together national education systems in which the same development trends appear while maintaining diversity. Thus, democratization of education belongs to the same trends; humanization, which is aimed at the transition from technocratic to humanistic knowledge and the consolidation of universal human values; informatization of education; diversification of education.

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