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The effect of the active thinking model on learning the skills of serving and receiving in volleyball

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Abstract

The importance of the current study lies in the use of a modern educational model that keeps pace with the progress and development of the era, which is the (active thinking) model, which represents one of the models of the constructivist theory that makes the student a focus and part of the educational process and a participant in it. And receiving it in volleyball. The research aimed to identify the effect of active thinking for young players, and to identify the preparation of educational units using the active thinking model to learn the skills of serving and receiving volleyball for young players. The two researchers followed the experimental approach in solving the research problem. The research community was identified with young players aged (14-16) years for the clubs of the Middle Euphrates governorates in volleyball for the sports season (2020-2021), amounting to (72) players, representing (6) clubs, which are (Al-Daghara, Al-Hindiya, Al-Kufa, Al-Qasim, Al-Mashkhab, and Al-Rawdatain), and the researcher excluded the free player (the libero); For the lack of search requirements in them, who numbered (6) players, and thus the total number of the tow researchers community became (66) players, and then the main research sample was chosen from the Kufa Club players by the intentional method, whose number is (12) players, as they represent (18.18%) From the original community, they were distributed equally into two groups (control and experimental) in a random manner. The researchers verified the results using the (SPSS) system. The conclusions are to encourage teaching using the active thinking model to interact with the two skills to be learned in volleyball, and that the experimental group players' acquisition of various skills such as planning, organizing, text review and editing through the active thinking model contributed significantly to their superiority over the control group players. In addition to asking questions and raising them and their positive participation during the lesson, the use of this model helped to enable the players to generate questions and ask them during the lesson. The two researchers recommended that teaching should be encouraged to use the active thinking model to interact with the two skills to be learned in volleyball, as well as to ask questions and raise them and their positive participation during the lesson. Forms of learning to perform one skill in line with the nature and performance of the game of volleyball and its skills and the performance of these exercises in different circumstances

Keywords

active thinking, transmitter skill

Introduction:

The era we live in now is the era of science and technology, where the accumulation of scientific discoveries and theories and their technological applications continues, which affects the lives of all members of society, so science is one of the things necessary for the life of every individual in order to become a citizen who lives his time,

and it has become difficult to separate education from the requirements Daily life, so there was a need to provide students with appropriate methods to deal efficiently with these variables by developing their abilities to analyze, evaluate, compare and distinguish, and help them to employ what they learn in their daily lives (13).

One of the models that can achieve this is the active thinking model, which aims to help develop various life skills. It encourages discussion and dialogue, as well as the public participation of thinking, in order to address real-life problems to facilitate the transmission of the impact of learning and the future use of problem-solving skills. Therefore, the interest of thinkers came And those interested in searching for the link between thinking processes and problem-solving, then came the model of active thinking, which aims to solve problems in an environment dominated by an atmosphere of social interaction, and to improve the ability of learners to think through its various stages that include all cognitive and meta-cognitive skills, and this model is presented to form and develop thinking through Solving problems collaboratively (4), as it develops the learner's skill of discussion, dialogue, and public participation in thinking and addressing real life problems. (Vygotsky), and (Sternberg), who emphasized in his social cultural theory the importance of T Social actor in the development of higher psychological processes, as well as in Sternberg's theory in his triple theory of human intelligence, assuming that there are three types of intelligence (analytical, creative, and practical), and their integration helps to a large extent to make learners able to face life's problems (5).

The importance of this study is evident in identifying the effect of the active thinking model on raising the level of skillful performance of young people. This study is the first of its kind in the field of physical education, as far as the two researchers are aware, which crystallized around the active thinking model for its harmony and effectiveness for applications that deal with the field of individual differences among learners in order to Enriching the educational process by finding effective means that stimulate the learner's mind, which helps facilitate the acquisition, storage and retrieval of information (16).

Here lies the research problem. Most of the educational institutions still lack the teacher in the playroom to communicate the information through his transmitting channel (the method), which is represented by explaining the skill and presenting the performance model while he is learning the skills of transmitting and receiving the transmitter, and these two skills may need means to display the exercise in order to facilitate its performance. And mastering it through choosing levels of higher mental processes such as analysis, synthesis and evaluation, in which the information is processed in the memory and then stored and retrieved according to what is required by the educational situation when faced with stimuli that challenge the learner's abilities. Education, and the aspiration to employ alternative teaching models that are appropriate to our educational goals and find them profitable and productive, especially as we are in a world based on the data of science and scientific thinking on the one hand, and the resulting technologies and innovations on the other hand. To underdevelopment and failure to keep up with the times, so the research aimed to prepare educational units using the model of active thinking and to identify the impact of the performance of the skills of sending and receiving transmission in volleyball to raise the level of skillful performance of the juniors, as well as identifying the differences between the tribal and remote tests of the research group, and the two researchers assumed that there are statistically significant differences between the tribal and remote tests and between the post tests of the skills of sending and receiving volleyball for the research groups.

Method and procedures:

One of the things that must be taken into account in scientific research is choosing a sample that represents the original community in a true and real way, as the process of selecting the sample is closely related to the nature of the community from which the sample is taken, as it represents

the part that represents the original community on which the researcher conducts the entirety and focus of his work (1) (14) The two researchers used the experimental approach with two equal groups (experimental and control) with two pre and post-tests. The research method is "that intellectual organization overlapping in the scientific study or it is the intellectual steps that the researcher takes to solve a specific problem (6) The research community has been identified with young players of ages (14-16) years old for the clubs of the Middle Euphrates governorates in volleyball for the sports season (2020-2021). The number is (72) players representing (6) clubs, which are (Al-Daghara 13 players, Al-Hindia 11 players, Al-Kufa 13

players, Al-Qasim 12 players, and Al-Mashkhab 11 players, and the two kindergartens are 12 players), and the two researchers excluded the free player (the libero) due to the lack of research requirements in them, which numbered (6) players, and thus the total number of the research community became (66) players, after which the main research sample was chosen from the players of Al-Ahly club Kufa by the intentional method of (13) one player was excluded and the remaining is (12) players and they represent (18.18%) of the original community, and they were distributed into two groups (control, experimental) equally randomly, and table (1) shows the research community and its samples.

Table (1)
Describe the research sample

research community	Experimental sample		Application sample	
66	Number	percentage	Number	percentage
	6	% 9.09	12	%18.18

The two researchers conducted homogenization for some variables, as shown in Table (2).

Table (2)
Shows the homogeneity of the research community

variables Statistical parameters	Measurement unit	Arithmetic mean	Median	Standared deviation	Coefficient of torsion
Length	.Cm	176.000	177	0.904 -	0.643
body mass	.Kg	70.545	70	0.726	0.441
chronological age	Year	15.090	15	0.286	0.209
training age	Month	11.363	11	0.195	0.213

From Table (2), it is smaller than (± 1), and this indicates the normal distribution of the sample, which indicates its homogeneity within the aforementioned variables.

After that, the two researchers resorted to verifying the equivalence of the two research groups in the variables that relate to the tests of the study variables, according to what is shown in Table (3).

Table (3)
Shows the equivalence of the two research groups

Variables	Measure ment unit	Control group		Experimental group		calculated (t) value	test significance level	Significance type
		A	STD	A	STD			
The skill of facing the transmission from above	Score	4.166	0.409	4.333	0.516	1.464	0.448	Unsign
The skill of receiving the transmission from the bottom	Score	4.833	0.983	5	0.894	0.307	0.533	Unsign

The two researchers prepared a questionnaire for a set of tests presented to the experts and specialists in volleyball, testing and measurement, and an agreement percentage (80%) was adopted, as the two researchers adopted the test of the skill of the front serve from the top in volleyball (2) and the test of the skill of receiving the serve from the bottom in volleyball (103). 4) An exploratory experiment was conducted on (6) players from the origin community representing Al-Daghara Sports Club on Wednesday corresponding to 23/2/2022 at 4:00 pm, after which the two researchers conducted tribal tests on the two research groups (control and experimental) on (Thursday and Friday) corresponding to 24-25/2/2022, at four o'clock in the afternoon, in the closed sports hall of the Kufa Sports Club. The two researchers counted the educational units according to the active thinking model over a period of one and a

half months, and it included (12) educational units, at the rate of two units per week, and the steps of the model were applied in the main part of The educational unit, and after applying all the units, the two researchers conducted the post-tests on Wednesday corresponding to (4/27/2022) in the manner and conditions in which the pre-tests were conducted. After that, the two researchers applied the main experiment (the educational program according to the model of active thinking) for the experimental group, and some stages were combined because they achieve the same goal required by my agencies: the first stage includes (organizing ideas, defining the problem, generating ideas and decision-making, the second stage includes (implementation and application of exercises) The third stage includes (evaluation and feedback).

Results:

Table (3)

shows the arithmetic mean, standard deviations, and t-value calculated between pre and post tests for the experimental group

.Seq	Statistical parameters variables	Meas urem ent unit	Pre test		Post test		Calcul ated t value	test signifi cance level	Signi fican ce type
			A	STD	A	STD			
1	The skill of facing the transmission from above	Score	4.333	0.516	8.5	0.547	25	0.000	Sign
2	The skill of receiving the transmission from the bottom	Score	5	0.894	8.166	0.752	10.304	0.000	Sign

Table (4)

shows the arithmetic mean, standard deviations, and t-value calculated between pre and post tests for the control group

.Seq	Statistical parameters variables	Meas urem ent unit	Pre test		Post test		Calcul ated t value	test signifi cance level	Signifi cance type
			A	STD	A	STD			
1	The skill of facing the transmission from above	Score	4.166	0.409	7	1.095	5.937	0.002	Sign
2	The skill of receiving the transmission from the bottom	Score	4.833	0.983	7	0.632	7.050	0.001	Sign

Table (5)

shows the arithmetic means, standard deviations, and the value of (t) calculated between the post-tests for the experimental and control groups.

Seq	Statistical parameters variables	Meas urem ent unit	Control group		Experimental group		Calcul ated t value	test signifi cance level	Signifi cance type
			A	STD	A	STD			
1	The skill of facing the transmission from above	Score	7	0.547	8.5	0.752	6.39	0.000	Sign
2	The skill of receiving the transmission from the bottom	Score	7	0.632	8.166	0.752	2.907	0.016	Sign

Discussions:

Through the previous results that were presented and analyzed for the pre and post skill tests in Table (3, 4 and 5), it appeared that there were statistically significant differences between the pre and post-tests in the skill tests in favor of the post tests and the experimental group, and the researchers attribute the reasons for these differences to the influence of educational curricula (thinking model active, and the curriculum used in the club) as we find that the impact of these curricula was effective in learning events and then helped to show clear progress in the level of skill performance in the experimental and control groups, but with different differences (12), as following the scientific and logical steps in planning And the implementation on which the educational curricula are built inevitably leads to learning events, and the researchers also attribute the reasons for these differences to other variables that interfered in the learning process, including following the principle of gradualism in learning motor skills through the gradual giving of exercises from simple to complex after explaining and presenting them by the teacher in addition to continuous training on the skill and providing the learner with feedback, and this is what the two researchers (Zeina Hassan and Naglaa Abbas) agreed upon (7).

They indicated that the use of feedback in correcting the mistakes that the player makes when applying the skill has a role in improving his performance, and this was confirmed by Wajih Mahjoub, "The more variables in the forms of exercise, the greater the changes in the type of learning. All these factors combined helped to increase the motivation of The players and thus led to the occurrence of positive effects in the learning process, and this is consistent with what he mentioned (Dhafer Hashim, 2002) that one of the natural phenomena of the learning process is that there must be development in learning as long as the teacher follows the steps of the sound foundations for learning and

teaching and for the beginning of learning to be sound The explanation, presentation, and rehearsal should be clarified on the correct performance and focus on it until the performance is consolidated and stable, and providing the learner with the final feedback (about the result) increases the learner's motivation and urges him to perform correctly with desire and impulsiveness (3). This is also confirmed by (Mohamed Mahmoud, 1999) "when implementing the curricula effectively, the general performance of the player improves greatly (5). The researchers also attribute the reasons for the superiority to the fact that the active thinking model is designed to improve the player's ability to think, as it depends on a set of cognitive tools It is above cognitive, and includes in its steps discussion, dialogue, and public sharing of thinking. The stage of communication, through which students exchange ideas among themselves, also contributed to raising students' achievement through exchanging information among them (11).

Also, the use of the active thinking model encouraged the players to write and participate and get rid of fear and shyness, and increased their self-confidence and encouraged them to express their feelings and express their opinions away from direct criticism that limits creativity and hinders its progress, in addition to that, it helped in the development of thinking and the acquisition of its skills Because he is interested in searching for and analyzing reasons, arguments, and justifications, and then formulating them with new ideas and conclusions based on the ideas presented, which leads to an improvement in their expressive performance (15).

Therefore, the two researchers see the importance of the active thinking model in establishing an atmosphere of reassurance and solving problems through constructive dialogue, and its importance lies in training the players' minds to convince others (8).

On this basis, the two researchers saw that the importance achieved by the active thinking model in the teaching process is a set of positives (9)

Make every effort to transfer the experiences gained from the model in solving new problems outside the study and focus in part on cooperative learning in small groups, and this in turn increases the players' self-confidence and develops their social skills and encourages students to monitor and self-evaluation and the ability to learn from mistakes and failures will help to stimulate thinking, stimulates their minds to continue practicing thinking, and helps the players to communicate with each other, Which eliminates aloofness and isolation for some, and also develops social communication and listening skills, and encourages them to respect the point of view of others, to interact positively with the environment in which the player lives, to pay attention to its problems, and to think about solutions to it (10)

Conclusions:

By presenting, analyzing and discussing the results of the pre and post-tests, the two researchers concluded:

Teaching, using the active thinking model, encouraged interaction with the two skills to be learned in volleyball, as well as asking and raising questions and their positive participation during the lesson. control. This model also helped enable the players to generate questions and ask them during the lesson.

According to the conclusions reached by the two researchers, they recommended the following:

Teaching, using the active thinking model, encouraged interaction with the two skills to be learned in volleyball, as well as asking questions, raising them, and their positive participation during the lesson. The use of this model helped enable the players to generate questions and ask them during the lesson, and the need to pay attention to the diversity of exercises through the diversity of practice in the forms of learning.

Performing one skill in line with the nature and performance of the volleyball game and its skills, and performing these exercises in different circumstances.

References:

1. Abdullah. A. & Muhammad A. (2014) An Introduction to Scientific Research Methods in Education and Human Sciences, 2nd Edition: (Kuwait, Al-Falah Press for Publishing and Distribution. P:107
2. Basma. N. M. (2010). The effect of education according to the strategy of metacognitive knowledge for those who take risks versus caution in learning and retaining some basic skills in volleyball, unpublished doctoral thesis, University of Baghdad, College of Education for Girls P:137
3. Dhafer. H. I. (2012) Intermediate teaching style and its impact on learning and development through spatial organizational options for the tennis education environment. PhD thesis, College of Physical Education, University of Baghdad. P:102
4. Jaber. A. (2009). Thinking Frameworks and Its Theories, A Guide to Teaching, Learning and Research, Dar Al-Masirah, 1st edition, Amman. P: 290
5. Muhammad. M. (2010) Instructional design - theory and practice. 1st Edition, Amman: Dar Al Masirah for Publishing, Distribution and Printing. P: 22, P: 65
6. Nouri. I.; Researcher's Guide to Writing Researches in Physical Education, (Baghdad, University of Baghdad, 2004. P: 51
7. Najlaa. A & Zenah H. (2012) The Basic Principles of Volleyball Skills and Ways to Learn Them: Iraq, Dar al-Kutub and Documentation. P:19
8. Pressley, M. (2003) Research-educator Collaborative Interview study of Transactional Comprehension Strategies, Journal of Educational Psychology. P: 11
9. Safa Abdul-kareem Sadiq, & Dr. Najlaa Abbas Nseif. (2022). The relationship of three-

dimensional intelligence to cognitive achievements in the subject of teaching methods. Modern Sport, 21(4), 0001.

<https://doi.org/10.54702/ms.2022.21.4.0001>

10. Hind Ubaid Abdul-salam, & Dr. Huda Abdul-sameea. (2022). The relationship of totalitarian thinking to learn to perform the skills of preparation and receive the transmission with volleyball. Modern Sport, 21(4), 0113.

<https://doi.org/10.54702/ms.2022.21.4.0113>

11. Salman, D. (2022). The effect of using the mental visualization strategy in the style of cooperative groups in learning the two skills of setting from the top and receiving from the bottom in volleyball. Modern Sport, 21(2), 0019.

<https://doi.org/10.54702/msj.2022.21.2.0019>

12. Alyaa Ali, & Dr. Suhad Qassim. (2022). The effect of Cross Fit exercises on the development of explosive power, speed of Kinesthetic response, and performance accuracy of the skill of crush beating for volleyball players. Modern Sport, 21(2), 0010.

<https://doi.org/10.54702/msj.2022.21.2.0010>

13. M. Dania Salman, & M. Shaymaa Jaafer. (2022). The effect of the Intustel model in learning the skills of transmitter and transmitter receiving volleyball for female students. Modern Sport, 21(3), 0054.

<https://doi.org/10.54702/msj.2022.21.3.0054>

14. Malath Haider, & Dr. Njlal Abbas. (2021). Decision-making and its relationship to spiking and blocking performance in volleyball for emerging players. Modern Sport, 20(3), 0035.

<https://doi.org/10.54702/msj.2021.20.3.0035>

15. Haneen Mohammed Hussein, & Dr. Muna Talib Albadry. (2021). Self-programming of information and its relationship to some offensive skills in volleyball among female students. Modern Sport, 20(3), 0055.

<https://doi.org/10.54702/msj.2021.20.3.0055>

16. Sarah Qassim, & Dr. Bushra Kadhum. (2021). The effect of a learning strategy for mastery in learning the skills of Setting volleyball for female students. Modern Sport, 20(3), 0089.

<https://doi.org/10.54702/msj.2021.20.3.0089>

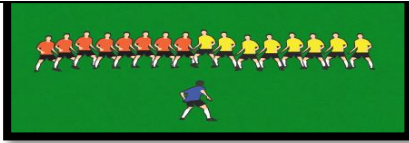
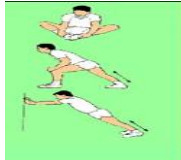
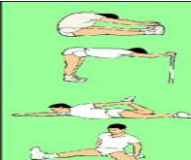
Appendix (1)


A model for an educational unit in volleyball according to the active thinking model

Unit time: 45 minutes

Educational objective: Teaching the skill of serving from above in volleyball

Location: The outer yard of the High School for Girls

Section	Time	Details	Activities	Notes
Preparatory section	10 m	Attendance, absence taking and skill identification		Stand in one line in front of the teacher Walking - jogging - raising the knees, then physical exercises that serve the parts that are used in the activity (arms - torso), taking into account flexibility and strength exercises and explosive strength exercises for the feet, as the success of this skill depends largely on the muscles of the legs
	4 m	General warm-up (fitness exercises in general)		
	4 m	Special warm-up (physical exercises that serve the main section and the game) Rotation of arms, trunk, knees,		

		explosive strength of the feet, flexibility and agility exercises		
Main section:	30 m	It includes the educational and applied section The stages of active thinking are implemented by combining		The students stand in the form of a square minus one side and put the hand that hits the ball
1- The educational section	10 m	The first stage: presenting the problem, organizing ideas, generating ideas, and making a decision by presenting the skill by asking a specific question or problem, such as the reasons for the wrong execution of the transmission from above		Provoking previous information among students about the skill of serving from above in terms of body position, palm position, the stages of performing the skill in full, and the position of the hand striking the ball
2- Applied section	20 m	knowing the previous information of the students regarding this skill, organizing ideas, and listening to the proposals. Explaining and presenting the skill of sending from above in front of the student		Taking into account correction and feedback during performance
	5 m 5 m 5 m 5 m 5 m 5 m	participating and overlapping the students in identifying the most important points in the skill of sending from above, presenting a set of ideas during the presentation of the skill, choosing the best idea and making the decision to implement it. The second stage (implementation): in which four exercises are selected from the educational program and exercises are applied for the crushing skill. Each student stands in front of the other at a distance of 1 m, where one of them catches the ball at the level of the serve, and the other student applies the performance of the serve movement by simply swinging the striking arm and placing the palm in the correct place to hit the ball		

Concluding section	5 m	<p>The student stands on the side lines of the court, and each student hits the serve to her counterpart on the other side line, who catches the ball and then carries out the serve.</p> <p>The students stand in the form of three teams behind the finish line, and a female student stands in front of each team on the other side of the court also behind the finish line. The first student from each team sends to the opposite court, and after executing the serve, the student standing in front of each team catches the ball after it falls, then rolls the ball from net down to his team</p> <p>The students stand on the sidelines of the court, and each student hits the serve to her colleague opposite her on the other sideline, who catch the ball and then carry out the serve</p> <p>Stage Three Evaluation: After performing the exercises, a rest period is given during which the performance is evaluated by the students and the most important suggestions and opinions that help learn the skill are heard.</p> <p>A small game for the purpose of recreation and hospitalization and serves the main section</p> <p>little game</p>		Remedial exercises - regularity and dismissal
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تأثير انموذج التفكير النشط في تعلم مهارتي الارسال واستقبال الارسال بالكرة الطائرة

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مستخلص البحث

تكمن أهمية الدراسة الحالية في استعمال انموذج تعليمي حديث يواكب تقدم العصر وتطوره وهو انموذج (التفكير النشط) والذي يمثل احد نماذج النظرية البنائية التي تجعل الطالب محورا وجزء من العملية التربوية ومشاركا فيها، وجاء استعمال هذا الانموذج كمحاولة في رفع مستوى اللاعبين في الاداء المهاري لمهارة الارسال واستقباله في الكرة الطائرة ، وقد هدف البحث إلى التعرف على تأثير التفكير النشط للاعبين الناشئين ، والتعرف على إعداد وحدات تعليمية بأنموذج التفكير النشط لتعلم مهارتي الارسال واستقبال الارسال بالكرة الطائرة للاعبين الناشئين ، واتبعت الباحثتان المنهج التجريبي في حل مشكلة البحث ، وتم تحديد مجتمع البحث باللاعبين الناشئين بأعمار (14-16) سنة لأندية محافظات الفرات الأوسط بالكرة الطائرة للموسم الرياضي (2020-2021) ، (البالغ عددهم (72) لاعباً، يمثلون (6) أندية، وهي اندية (الدغرة ، والهندية ، والكوفة ، والقاسم ، والمشخاب ، والروضتين) ، واستبعدت الباحثتان اللاعب الحر (الليبرو)؛ لعدم توافر متطلبات البحث فيهم ، (البالغ عددهم (6) لاعبين ، وبهذا أصبح العدد الكلي لمجتمع البحث (66) لاعباً ، وبعدها تم اختيار عينة البحث الرئيسية من لاعبي نادي الكوفة بالطريقة العمدية ، (البالغ عددهم (12) لاعباً فهم يمثلون نسبة (18.18%) من مجتمع الاصل ، وتم توزيعهم على مجموعتين (ضابطة ، وتجريبية) بالتساوي بالطريقة العشوائية . وتحققت الباحثتان من النتائج بنظام (SPSS) لتكون الاستنتاجات بتشجيع التدريس باستعمال انموذج التفكير النشط على التفاعل مع المهارتين المراد تعلمها في الكرة الطائرة ، وإن اكتساب اللاعبين المجموعة التجريبية للمهارات المختلفة كالتهيئة والتنظيم ومراجعة النص والتحرير من طريق أنموذج التفكير النشط أسهم بنحو كبير في تفوقهم على لاعبي المجموعة الضابطة. فضلا عن طرح التساؤلات واثارتها ومشاركتهم الايجابية خلال الدرس ، أن استعمال هذا الأنموذج ساعد على تمكين اللاعبين من توليد الاسئلة وطرحها في أثناء الدرس . واوصت الباحثتان بتشجيع التدريس باستعمال انموذج التفكير النشط على التفاعل مع المهارتين المراد تعلمها في الكرة الطائرة فضلا عن طرح التساؤلات واثارتها ومشاركتهم الايجابية خلال الدرس وأن استعمال هذا الأنموذج ساعد على تمكين اللاعبين من توليد الاسئلة وطرحها في أثناء الدرس وضرورة الاهتمام بتنوع التمرينات من خلال تنوع الممارسة على أشكال تعلم أداء المهارة الواحدة بما ينسجم مع طبيعة أداء لعبة الكرة الطائرة ومهاراتها وأداء هذه التمرينات بظروف مختلفة

التفكير النشط ، مهارة الارسال

الكلمات المفتاحية