

THE IMPACT OF THE COGNITIVE APPRENTICESHIP STRATEGY IN LEARNING SOME TECHNICAL GEMS' SKILLS FOR STUDENTS

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Abstract

Despite all developments on the contents of the curriculum and success achieved in the formulation of the educational objectives, he has not accompanied by a parallel success in the teaching methods. In the recent periods of the important scientific developments, which preceded throughout the ages, including all areas of life. Through designing positions based on the active participation of the learner, and its positive interaction, so he can develop his thinking and skills. Knowledge instead of receiving, and this is entitled to design an active educational environment that ensures an effective and active role for the learner. The researchers used the experimental curriculum for its suitability for the nature of the search problem and in the way of designing two groups and comics, the tribal and backup and each of my search group. The researchers have chosen the research community in the deliberate method and represented the students of the first phase distributors on (8) Scholarships at the Faculty of Physical Education and Sports Sciences / Al Basra University for the academic year (2020-2021) total (237) students. where the number of sample (40) students only, and a percentage (16,87%) most important conclusions:

1. The strategy used (cognitive apprenticeship) had a positive effect in learning skill to stand on the shoulders



2. Through the role of teacher in the strategy (cognitive apprenticeship), supervision and guidance is reduced from the effort and thus investing education time by the teacher.

Most Important Recommendations

1. Adoption of educational units prepared by the researcher using the strategy (cognitive apprenticeship) for its significant and effective role in developing the level of skill performance for certain basic skills in the garden
2. Emphasize the urging teachers in physical education colleges and sports sciences to use modern strategies and educational methods, as well as relying on self-experience and exacerbation as much as possible on traditional methods and methods

Keywords: cognitive apprenticeship strategy; technical gems'.

1 -1 Introduction and Importance of Research

The teacher's duties and his duties are changing and developing life., And that the strategy used by the teacher will "affect students to positively and disobeyed students and depends on the strategy to alert the mental and physical needs of students" (Khalid Mohammed: 2012). The study and success in the formulation of educational goals has not been accompanied by a parallel success in the teaching methods. Presented by developments throughout the ages included all areas of life, and the education was not isolated from these developments. The educators have sought hard to develop Methods of teaching and looking for new strategies in which attention to the learner is in the first place and given the greatest role through the design of positions based on the active participation of the learner and its positive interaction, so that he can develop his thinking and skills , Where the teacher's role is changed to information to an engineer for educational attitudes, and the student's role has become the focus of "the educational process and the most important pillars and has become a participatory in the knowledge-making instead of receiving. Life is broadcast in the educational process and is determined about laziness" (Shahrzad Mohammed:2011), and from the modern theories that emphasize the building of knowledge is a structural theory aimed at teaching students how to build knowledge themselves instead of receiving others, with several teaching strategies, and is one of the strategies based on The theory of structural is seeking



easy and clear learning operations by student through modeling and other processes, in addition to stirring their motivation, increasing their learning and aiming to learn procedural steps in order to perform tasks but does not just find what we do just but confirm how to use Methods for the performance of the task and here teachers provide students with verbal experience to make their thinking clearly, through guidance and guidance from s But the teacher and through what is provided.

1-2 Research Problem

The researchers noted through his teaching experience that the method used in learning the basic skills of your garden is the traditional method that consists of teacher's ideas. In learning some basic skills in your garden, and the problem of research can be formulated by the following question: The effect of using the cognitive apprenticeship strategy needs to learn some basic skills in your body?

1 -3 Research Objective

- 1- Prepare an educational curriculum according to the strategy of cognitive apprenticeship in learning some technical gems' skills.
2. Identify the impact of the curriculum according to the strategy of cognitive apprenticeship in teaching some technical l skills for students
3. To identify the statistical differences between tribal and diminishing tests of the control and experimental groups
4. To identify the statistical differences between the dimensions of the control and experimental groups

1-4 Hypotheses Research

- 1- There are statistically significant differences in the results of tribal tests and the dimensional tests of the control and experimental groups in learning some basic skills in the garden and the benefit of dimensional tests.
- 2- There are statistically significant differences in the results of the dimensions of the control and experimental groups and the benefit of the experimental group.



1-5 Research Areas

1-5-1 Sample of the first phase students at the Faculty of Physical Education and Sports Sciences / University of Basra (morning study) for the academic year 2020/2021.

2-5-1 Time domain: represented by the time period from 20 / 12 / 2020 TO 14 / 2 / 2021 .

1-5-3 The spatial domain: The Interior Hall of the Faculty of Physical Education and Sports Sciences / Basra

2-1 Research Methodology

The researchers used the experimental curriculum for its suitability for the nature of the search problem and in the way of designing two groups and comics, the tribal and backup and each of my Research group

2 -2 Society and Sample of Researchh

The researchers have chosen the research community in the deliberate method and represented the students of the first phase distributors on (8) Scholarships at the Faculty of Physical Education and Sports Sciences / Al Basra University for the academic year (237-2021). (Drawing) where the number of sample (40) students only, and a percentage (16,87%) of the original community and the sample is distributed as follows:

A Division (g) has formed the number of students (20) students (20) students studying the first trial group, which is taught according to the cognitive apprenticeship strategy, and a sample division has formed the number of students (20) students, as well as taught by two educational units during the week Course scheduled for college, as well as providing appropriate conditions for the application of the cognitive apprenticeship strategy

2-1 Homogeneity of Groups

The researchers used the difference to see how sample homogeneity in physical and age measurements. The value of the difference between (4,185) and (24,672) refers to the sample homogeneity and the more than 1% (1%) coefficient is high, and if more 30%) This indicates that the sample is heterogeneous, and as in tables (1)



Variables	Unit Measurement	Mean	Standard deviation	Variation Coefficient
Length	Cm	174.95	7.232	4.185
Mass	Kg	72.55	17.90	24.672
Age	Year	19.75	1.178	5.964

2-2 Parity of Groups

In order for the researcher to be able to attract differences in the results of dimension to the impact of the experimental worker, resorted to verify the equivalence of the research group (first experimental group and control group) using Test for interrelated samples, as in table (2).

Variables	Unit Measurement		The first group (Cognitive apprenticeship)		the second group (Control)		T value	Sig value
			M	S				
Length	Cm	174.95	7.323		175.75	6.137	0.374	0.710
Mass	Kg	72.55	17.90		72.40	19.44	0.025-	0.852
Age	Year	19.75	1.178		19.85	1.260	0.265	0.700
Stand on the shoulders	degree	1.888	0.600		2.111	0.600	0.788	0.440

Through table 2, all values (SIG) are greater than (0.05), indicating that there are no statistical differences between the variables of physical and age measurements for the research group and this is proof of the equivalence of the sample personnel for both experimental and control group.

2-3 Means of Collection of information, tools and Devices Used in Search

2-3-1 Means of collection of information:

- Resources, Arab and foreign references.
- Personal observation.
- Statistical means
- Shaking tests
- Data registration and unloading form (Annex 1).

2-3-2 The tools used:

- Parallel device.
- Tape measuring length (50 m).
- Electronic balance number (1).
- Split your gems.
- Creative.



2-3-3 Hardware Used

- Dell PC Type (Dell) (1).
- Data Show (Data Show). Handwritten clock (1).

2-4 Field Research Procedures

2-4-1 Skills Tests

Test the Skill Stand on the Shoulders

This test aims to measure the student's ability to perform skill to stand on the shoulders on the parallel device where the student is taking place to stand on the acumen and then evaluate the skill member's agreement to be the final degree of skill is from (0-10) degrees.

2-4-2 Preparation of Educational Units in accordance with the Steps of the Strategy

By informing the researcher on many scientific sources and references, and briefings on some studies and research conducted on other sports activities based on the strategy used in research, and in order to achieve the search objectives and before initiating the main experience, the researcher prepared (16) an educational unit of the first and second groups Annex 10) and in reality (8) educational units for the first group, according to the cognitive tactics (modeling, resumption, meditation, exploration, expression, training), In the methods of teaching and body with a view to taking advantage of their views and guidance on the appropriate entry of both cognitive apprenticeship in the educational units prepared by the researcher, and the adequacy of the teaching unit times, activities and exercises prepared by the researcher, dedicated to the first phase students at the Faculty of Physical Education and Sports Sciences / University Basra, service to learn skills under research, and researcher has adopted the views of experts and specialists and worked in their tips in conducting some modifications to the teaching units.

2-4-3 Sample Mechanism According to the Cognitive Apprenticeship Strategy

This strategy was implemented on the first pilot group, for students of the first phase at the Faculty of Physical Education and Sports Sciences / University of Basra, and strategic steps shows as follows:

- **Modeling:** This step is applied by explaining the skill clearly and in college, and then presented its model by teacher or one eligible good student to perform the correct technical performance of the new skill.



- **Condition:** In this step, the teacher provides temporary support for students, through the use of illustrations and concepts of concepts representing divisions and performance of each skills of the search and some common performance errors, as well as introductory films through the projector (Data Show) Educational units, guiding students and promotion and assistance to execute, with a view to identifying the correct performance of the skill and increasing their level of understanding, and this support is gradually raised during the progress of the educational unit to continue the rest of them.
- **Meditation:** In this move, students compare the receiving information from the teacher with the show model with their mental image, where students review and compare their performance steps with their colleagues or model performance in the applied part of the skill.
- **Exploration:** This step is applied by introducing a threaded string of exploratory questions during the educational unit regarding the new skill, gradient in difficulty, by the teacher, which in turn encourages students to reach final answers to learn and master the skill.
- **Expression:** After the teacher browsing the questions to be answered, the opportunity is given to students to dialogue and discussion and exchange ideas and views on the new skill. Students are expressed by knowledge they have reached or their learning results through illustration or verbal expression.
- **Training:** This step is applied by teaching students how to apply the theoretical information and correct technical performance to skill in practical positions, by performing a range of diverse exercise prepared by the researcher, noting the performance of students during implementation with hints, feedback To support and promote learning.

2-5: Exploratory Experience

The researcher conducted the first exploratory experience at the Faculty of Physical Education and Sports Sciences / University of Sports / University of Basra on Saturday (2/1 / 2021) at 10:30 am and in the presence of the assistant team, on a sample of (14) students, The same as the original search community and from outside the search sample, the purpose of conducting the exploratory experience is to ensure the safety and delivered hardware and tools used, and the extent of appropriate place when performing tests, knowing the time taken to implement the tests used, as well as confirming the efficiency of the assistant staff, in addition to identifying The constraints that may accompany the tests to be

accompanied by future, and to identify the understanding and understanding of students for the vocabulary used, and their suitability for the level of sample and the researcher chose an educational unit from special gastric units for the cognitive apprenticeship strategy. The aim of this experiment was to identify the constraints that may face the researcher Educational units prepared in accordance with strategic steps and work over.

2-6 Pere- Test

The tribal test of the experimental group was conducted at 10:30 am. The tribal test of the second pilot group was done at 12:30 pm on the same day at the internal hall of your body, tests to assess the technical performance of the skill of standing on the shoulders and the researcher initiated all necessary supplies for tests and installation All variables related to tests as place, time, used tools, and implementation method and in the presence of the assistant staff for control as much as possible to create the same or similar circumstances when conducting dimensional tests.

2-7 Main Experience

After the researcher identifies all the requirements of the major experience, by identifying the tests that measure the skill of standing on the gaps, prepare the educational units of research, after conducting exploratory and taking advantage of the organization of work and preparation for the main experience, and the researcher has made the main experience on sample Only 40 students (20) (20) Division, which represented the first group and a 20-year-old Division, which represented the officer, as the researcher began to apply the educational units on the first groups On Saturday (16/12021) at 10:30 am for the first group, at 12:30 pm for the control group, included (16) educational unity, and 8 units for each group It took its implementation (4) weeks and indeed (2) an educational unit per week for each group. The units have reached (1440) accurate. 320) accurate (22,22%) of total and included overall warm-up and performs diverse exercises during the walk and scourge. The main section has reached (60) minutes per unit) The total time and included the application of cognitive apprenticeship steps on the first group, and the main section on educational activity and application activity. Applied students apply what they have learned in educational activity, and after the teacher ends explain the skill begins to apply prepared exercises by the researcher. Overall time

2-8 Post -Tests

After completing the application of educational units at (7/2/2021 m) on Sunday and for the purpose of identifying the level of students, the researcher submits members of the first and second groups of the dimensions on Sunday (14/2/2021 m) in Hall and direct supervision by the researcher and in the presence of the Assistant Working Group. The last group was conducted at 10:30 am. The second group has been performed at 12:30 pm from the same day, and the researcher has been keen to create conditions and variables Supplies for tribal tests itself in tribal test, with a view to keeping away from variables that can affect the results of tests.

2-9 Statistical Means

The researchers use the statistical program (SPSS) (21) for data processing and extracting results, by using the following applications:

1 - The arithmetic mean. 2 - Standard deviation. 3 - Difference coefficient. 4 - Test (T) for interrelated samples. 5. Test (T) for independent samples.

3- View and Discussions

3.1 View the results of pre-test and post-tests of the first experimental group and discuss them

3- 2 Displays the results of the pre-test and actual test for the control group and discussed

3.1 View The Results of Tribal and Backup of the First Experimental Group and Discuss Them

Table (3) The calculation and standard deviations and value (T) are calculated for tribal testing and interest of the experimental group

Variables	Unit Measurement	pre-test		post-tests		T value	Sig value
		M	S	M	S		
Stand on the shoulders	degree	1.88	0.600	8.333	0.250	25.164	0.000

Where the value of the tribal arithmetic time for the skill of standing on the shoulders has reached (1.88) and a standard deviation of 0.600, and the value of the arithmetic in the postage was amounted to (8.333) and a standard deviation (0.250), and the calculated value (T) (25.164), while the SIG value was (0,00) and at a significant sign (0,05)

The researcher attributes moral differences to the effectiveness of prepared educational units, which were applied to this group, which has been studied by the cognitive apprenticeship strategy. Through the non-relying on the article teacher only in the acquisition of information through the educational activity prepared by the researcher in educational units, which encourages students to meditate and reflect to increase understanding and knowledge. As confirms (Zulfikar Saleh :2017)" that knowledge methods must be submitted through questions to occur in order to happen to learning and training in the field of competition", and to increase knowledge of the learner we first fail to be an application for theoretical response during performance, this player are benefiting in the operation of the theoretical side of the applied side. The performance of the performance of the skill of standing on shoulders and better results in dimensional tests came as a result of practical application and practice for the technical performance of skills during educational units and guaranteed by a variety of exercise. The application of these exercises by students is an active operation experience In addition, in addition to the researcher to develop exercises and complexity to progress in the skill learning process using the cognitive apprenticeship in learning has raised the love of the poll. Real fun for them.

3-2 View the results of the tribal and actual test for the control group and discuss them:

Table (4) It shows the calculations, standard deviations and value T for tribal test and interest for search variables for the control group

Variables	Unit Measurement	pre-test		ost-tests		T value	Sig value
		M	S	M	S		
Stand on the shoulders	degree	2.111	0.600	6.555	0.446	21.429	0.000

Where the value of the tribal arithmetic center for the skill of standing on shoulders has reached (2.111) and a standard deviation of 0.600. (21.429), while the SIG value was (0,00) and at a significant sign (0.05). The researchers attributed the development of some research variables for the control group for the appropriate method of good regularity in the performance of the educational units and a curriculum in terms of ease, difficulty and the role of teachers in good planning and preparation, as well as a result of practice and defending performance and the release of the control group on the ground "Traditional



learning depends on the positive role of the teacher in taking all decisions from planning, implementation and evaluation, as well as determining the right time to achieve goals.

Table (5) The arithmetic and standard deviation and value (T) are calculated for the group of experimental research and compressions in the interest of the skill stand on the agreement

Statistical means	Experimental group		Control group		T Calculated	Level of significance
	M	S	M	S		
Stand on the shoulders	8.333	0.250	6.555	0.446	10.432	moral

(Table 5) shows the arithmetic test for the experimental search group (8333) and the standard deviation (0.250) and the control group was the arithmetic center (6.555) and the standard deviation (0.446) and when processing results appeared: 10.432 The value of statistical significance is less than (0.05), indicating significant differences between the two groups and the benefit of the experimental group.

From Table (5) The presence of significant differences in the dimensions of the search variables and the benefit of the first pilot group, and this improvement and excellence of the first experimental group in most research variables return to the use of the cognitive apprenticeship strategy and various steps and steps giving the motivation for students, Acceptance of students as a new form of learning, which has contributed significantly to increasing the amount of information on some skills as a result of diversity and excellence of their methods that link the skill side by an adequate explanation and the clearing and sequence in explaining the skill, making them more able to understand and understand information To increase their attention and focus to participate actively to achieve the goals of educational units by misting the technical performance of the skill of standing on the stake where (Kholoud Younis:2016)" as the cognitive apprenticeship strategy is moving away from mere conservation and scientific principles to self-understanding Can explain what happens and predict and thus active use of knowledge", and educational units Which included the introduction of research and testing questions to address them and find solutions have increased the results of the interview, as these questions are prepared to search in Technic each skills under research and that the answer requires the student to execute a group of mental processes such as thinking, visualization, and realization Retrieve



memory stored information on the motor performance method, which enables the correct answers to these "questions for the purpose of mastery of the required performance, and sees" (Yousef Qatami :2013) The student's mind, retrieved and reportedly retrieved them in an effective manner, "and see (Mohsen Ali::2015)) "There is great importance to educational questions that enrich the learning process and increase the student motivation to learn." From their efficiency, and left an effective effect in the learning process, (Asia Hamid : 2011) " That the process of receiving information and knowledge from multiple sources is more clear to the recipient and attracts his attention and raises his motives towards learning", which leads to improving learning. The improvement in mastery of skill in the cognitive and skilled sides. Learning as an enjoyable thing and has an activity and vitality. To revitalize the learning process for the student and encourage it to continue, and worked to inform the student as a result of learning, reducing the anxiety and tension that might read in case Its lack of knowledge of the results of learning, and therefore should double its effort to take advantage of feedback and information provided by the teacher or owned by previous experiences, and through that can be identified where the student stands to achieve, and whether it needs a long time to reach It is close to him, and he is close to him. It is a motivation for focusing and continuing to master learning, good-absorbing and understanding "and see (Ahmed Hadi: 2002) "that the nature of the use of feedback and its type, which progresses to learners while playing an important role in their skeptical" and knowledge collection is to correct mistakes and promote the correct responses, "Thus increasing their confidence in performance and increased in concentration of their attention" (Hossam Abdel Hai Ibrahim :2015) and this preference for the first trial group, which was taught according to the cognitive apprenticeship strategy returns to its stages And its steps, integrated, integrated and interdependent and ensured in accurate measures that have worked to assist students in identifying the exact details of the skills under research. Students have briefed every step of strategic steps on specific details for their access to a broader and better understanding of the skill who was suggested by their previous experiences. For students towards learning by reaching the information itself because it leads to its mental activity and effective participation, with the exchange of views between the teacher and students, and students with each other, and this is a positive indicator on the effectiveness of student education and make them look more recognized and important and result in an educational and excitement environment The



effectiveness of (Hassan olive : 2013) "learning through structures, including the cognitive apprenticeship strategy, the student can be organized by the experiences and knowledge", which reaches a broader understanding, resulting in meaningful learning, The strategy is to install information about the skill in the minds of students longer through modeling, meditation and training easily when performing performance, and given the adoption of cognitive apprenticeship on the theory of building In terms of activating the role of students and motivating them to learn, so they became researchers of the right solutions and participants in the learning process depending on their previous information and experiences by strengthening this information with new information helped facilitate the learning process and organize previous expertise, as well as exercises The various sports prepared by the researcher is a great impact on enhancing performance for students, where(Mustafa Abdel Samay: 2001) said "that the repeated view of the performance is vital and a new investigation of the learning process and the student is transferred from the traditional learning atmosphere to a state of suspense and attracted to learning" . The introduction of exploratory questions had a major role in attracting students' attention and excitement of thinking about the skill and performance, and giving them freedom to get exploring the skillful performance of themselves. It is also that diversity in exercise has increased by students and contributed to accelerating skills learning, and sees (Qassem Samulant: 2005)" that diversity in the use of exercises and roads D teaching sports skills is the most appropriate method in creating an air" and pleasant atmosphere with students and thus contributing to a rapid learning of mobility and sports events, as well as the repetition of each exercise during time for exercise during the units is an important factor that contributed to the development At the level of students, educational units were appropriate for the sample level and accommodated, added to the good use of those units and implemented properly and organized by the Football Specialist as a result of the successful planning based on a scientific basis allowed to work and progress in the skill,(Reza Tamma Al-Ajili &Salih Khalifa Lamy : 2018)) "that of the natural phenomena of learning is inevitable that there is an evolution of learning as long as the teacher follows the steps of sound foundations in learning and education " .that the effectiveness of cognitive apprenticeship and its features have been granted a positive opportunity to share each student and interact with his colleagues through expression For ideas, increasing in Hamas and raising the level of performance and working on their motivation, and sees (. Lamia



Hassan::2016)" that among the important factors and Which has a fundamental role in the learning process and access to good results is the process of developing the motives". that contribute to the control of the individual information in its field of jurisdiction, which paid to thinking, hard work and performance (Nabil Wafik & others :2012)), as well as giving feedback for performance correction and promotion Which has increased student activity and their motivation, as feedback is increasing and reinforcing individuals and enhances the correct performance and avoiding the wrong performance, and increases the student independence in relying on itself to identify and address mistakes.

4- Conclusions and Recommendations

4-1 Conclusions

1. The strategy used (cognitive apprenticeship) had a positive effect in learning skill to stand on the shoulders
2. Through the role of teacher in the strategy (cognitive apprenticeship), supervision and guidance is reduced from the effort and thus investing education time by the teacher.
3. The first trial group, which used the cognitive apprenticeship strategy, was the best of the control group to learn skill to stand on the shoulders
4. The cognitive approach is to develop the capacity of the student on understanding and develop its meditation and accuracy capabilities and effectively raise real experiences, making students more willing to learn

4-2 Recommendations

1. Adoption of educational units prepared by the researcher using the strategy (cognitive apprenticeship) for its significant and effective role in developing the level of skill performance for certain basic skills in the garden
2. Emphasize the urging teachers in physical education and sports faculties on the use of modern strategies and methods, as well as relying on self-teaching experience and exacerbation as much as possible on traditional modalities and methods.
3. Choose educational strategies and methods commensurate with the nature of skill learning, performance and possibilities of students to ensure their involvement and management of the lesson.
4. Emphasize similar studies on other age stages not addressed by the current study of students, students and other events.



References

1. Asia, H , & Mohammed ,Y, (2011) ,the impact of a proposed educational program using active learning strategies and training direct in the ability to employ an apprenticeship model of cognitive development in teaching the student teacher, Cairo, Journal of the Faculty of Education, University of Mansoura, No. 74, p 57..
2. Ahmed , H, Y, (2011) ,Sophisticated methods in training gymnastics using muscle work, Cairo, Dar Thought Press, p 10.
3. Hossam , A, H, I, (2015) ,The effectiveness of a teaching program based on the use of the strategy of learning cycle modified in raising the school level and the development of Tamil Thinking in Science, Doctoral Thesis, Damascus, p88.
4. Khaled, M, H , (2012) ,Methods of Teaching Modern Physical Education, Amman, Community Library, p106.
5. Kholoud , Y, S, (2016) , The impact of the recruitment of a learning strategy on the problem in the development of sports thinking skills among students of the ninth basic grade in Gaza, Master's message, Gaza,p 50.
6. Zulfikar , S, H, (2015) , Football Football Education - Training, Baghdad, First Edition, Al Ghadeer Printing & Publishing Co., Ltd. P 27.
7. Reza ,T, A, & Salih ,K, L, (2018) , The impact of the cognitive apprenticeship strategy in the collection of the Arab Islamic history and the love of the poll on the second grade students Average, Journal of the Faculty of Education for Educational and Humanities, University of Babylon, No. 38, p, 23.
8. Shahrazad , M, Sh, & Yunis , M, (2011) , Leadership behavior of primary school principals and its relationship with decision-making, educational studies council, Baghdad, p 15.
9. Lamia , H & Hussein , F, (2016) ,The Assets of Teaching Physical Education, Dar El Masir, Lebanon. P 156.
10. Mohsen , A, (2015) , Building and its applications Teaching strategies, Amman, Dar al-Method for publication, p 107.
11. Nabil ,W , & others , (2012) , The impact of the building in the collection of fifth grade students and their trends towards philosophy and psychology, educational studies magazine, p 78.
12. Yousef ,Q , (2013), Learning, Education and Knowledge Strategies, Dar Al Maysra, Amman, P 43.