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The Impact Of Cognitive Apprenticeship Strategy On The Desire To Learn And Cognitive Depth In Social Studies Among Second-Grade Intermediate Students

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Abstract

The aim of this research is to learn about the impact of the cognitive apprenticeship strategy on the desire for learning and the knowledge depth in the subject of sociology in students of the second grade. To this end, two hypotheses have been formulated: There is no statistically significant difference at the level of (0.05) between the average grades of the pilot group students who examined the planned article by adopting the cognitive apprenticeship strategy and the control group students who studied the same subject by adopting the usual method of desire to learn the subject of sociology. There is no statistically significant difference at the level of (0.05) between the average grades of the pilot group students who examined the planned article by adopting the cognitive apprenticeship strategy and the control group students who studied the same subject by adopting the usual method of knowledge depth. To achieve the two research hypotheses, follow the pilot curriculum and choose the partially tuned design and after the school has been selected () randomly and after selecting Division (a) to represent the pilot group consisting of (33) Student after the exclusion of the students of the depositors and Division (c) to represent the control group consisting of (32) A student after the exclusion of the students, after the achievement of internal and external safety, after the creation of two tools that have the sincerity and consistency of one to measure the desire for learning and knowledge depth. After the application of the experiment to the final research sample, the tools were applied in their final form and after the correction of the forms and the discharge and analysis of data in the light of the SPSS-26 program. Through the results of the research, it was found that there is a statistically significant difference between the average students of the experimental group and the students of the control group at the level of significance (0.05) in the scale of the desire to learn and in favor of the experimental group, as it turns out that there is a statistically significant difference between the average students of the experimental group and students of the control group at the level of significance (0.05) in the cognitive depth test and in favor of the experimental group, In the light of this, recommendations and proposals were developed.

Keywords: *cognitive apprenticeship strategy, desire to learn, cognitive depth.*

Introduction

Scientific progress has always been one of the challenges facing education today. And so work on the development of teaching methods and traditional means has become an urgent necessity, The traditional education process has become incapable of preparing a teacher who can cope with this great progress commensurate with the differences that exist between students and work towards the goals of learning and the requirements of society and even the student's own inability to cope with the pressures of life.

Therefore, there is a need for strategies that develop learners' abilities, not the prevailing strategies that do not enable learners to think about the solutions to the problems of society, nor do they give a deep understanding of knowledge and do not constitute any desire and pleasure to learn, which causes learners to escape lesson because of boredom. and to move away from tradition, repetition and contradiction between what is learned and between reality, life and reality and understanding the meaning of the subject and educational experience [1].

The challenges mentioned above have left students with challenges related to their daily and future attitudes, resulting in behavioral and psychological problems such as anxiety, fragmentation of ideas and low level of science, making them a trap for frustration, pessimism, lack of desire for learning, lack of confidence and inability to understand and understand information and interpret things [2]. This impact also extends to incentives that surround students and affect their performance of any activity they do and without any desire and desire to acquire knowledge. In light of this, the problem of research arises, particularly in relation to a segment of society, adolescents who live a sensitive period of their lives because of biological, physiological and psychological changes that can significantly affect them, so the two researchers wanted to answer the following question:

What is the impact of the cognitive apprenticeship strategy in the depth of knowledge and the desire to learn in the students of the second grade medium in the subject of sociology?

The Importance Of Research

Sociology (social studies) is one of the most important subjects of study, especially with regard to topics related to history books. As it has been influenced by many historical and cognitive developments, it is one of the most sensitive materials of society's changes,

[1] Jaber Abdel-Hamid, *Multiple Intelligences and Developing and Deepening the Series of References in Education and Psychology* (Cairo, Dar Al-Fikr Al-Arabi, 2003).

[2] Gian Vittorio Caprara, Guido Alessandri, and Claudio Barbaranelli, "Optimal Functioning," *Psychotherapy and Psychosomatics* 79, no. 5 (2010): 328–30.

events and problems. s history and its cultural, economic and political interactions, The resulting problems, therefore, are always pursuing new ways of increasing their effectiveness. It achieves its objectives in order to keep pace with changes and developments in society.

It now requires an educated person capable of creativity and innovation, who has the ability to think about innovative solutions to society's existing problems within the limits of potential. Science is a source of happiness and pleasure, enjoys scientific thinking that fits the requirements of the present era, and is interested in continuous learning and training that is a tool for developing experiences and ideas. Deep learning has become an urgent necessity imposed by the needs of the labour market, the nature of the times and the aspirations of society aimed at achieving progress and progress, moving away from tradition and repetition, and the contradiction between what is learned and reality, life and reality. The goal of education is no longer to acquire knowledge and charge your learners' minds from information. But the main goal of education is to prepare a learner capable of coping with real life with what he or she learns, So that it applies what it has gained in attitudes and problems it faces, and this is done through deep learning aimed at achieving meaningful learning that has an impact on learners going beyond the educational attitude to be used in learners' life situations[3].

Teachers have raised the slogan "Teaching for learning" They made it a key goal of education, since good learning is not by adding a quantity of new information and knowledge to learners' minds, but rather by having a genuine desire and understanding to achieve the depth of knowledge available to the learner, how this knowledge fits with the new information learned, and how it is used and applied in similar life situations. Deep understanding is one of the recent trends that educators and psychologists have begun to pay great attention to in recent decades. as an important key to ensuring the depth of knowledge, living abundant information, developing many thinking skills, achieving success and adapting to modern developments, In addition to being a requirement for modern times, deep understanding is also an important requirement for the individual to achieve meaningful learning. and linking new knowledge to his existing knowledge structure which helps to have interconnected ideas, Understanding contradictions, understanding relationships, focusing on meaningful cognitive patterns in order to make the knowledge arising from it more relevant and likely to be remembered, retrieved and used in different areas and situations, Deep understanding helps learners to explain what they have learned in their words and give new examples that demonstrate knowledge, justify their thoughts, link learning materials to previously learned subjects, use new

[3] Duaa Muhammad Darwish, "A Proposed Teaching Model in Light of the Theory of Successful Intelligence to Develop Deep Understanding and Geographical Curiosity among Secondary School Students," *Journal of the Educational Association for Social Studies* 11, no. 1 (2019): 365–77.

knowledge in new and diverse contexts, and make new generalizations related to this pain and situation (Mohammed Hashim, 2017: 150) When knowledge is thoroughly and deeply understood, the learner can transmit it and work to apply it in new contexts and address it brilliantly to solve problems in an innovative manner (Fenwick, Humphrey, Quinn, & Endicott, 2013A.D).

The desire to learn is an important and influential factor for students as it drives them to reach their objectives that affect learning outcomes [4]. And it is also important in gaining knowledge of the demand and their continued activity, which leads to good outcomes and that it can enhance the desire to learn for students by providing an interesting introduction to learning subjects, setting clear goals for learning strategies and following the strategy of learning Tripathi [5]. It can enhance the desire to learn by using strategies based on learning and motivation to learn, as well as to improve the relationship between teacher and learner so that an alpha prevails instead of the fear and tension of the order of encouraging the learner to ask questions [6].

Al Feel[7] explained that the desire to learn is one of the main components of the motivation to learn where the last is motivation, need and desire for efficiency, and that there is an expulsive relationship between them where the desire to learn has increased the motivation to learn and do more[8].

Research Objectives

The research aims to recognize the impact of the cognitive apprenticeship strategy on the desire for learning and cognitive depth in the subject of sociology in students of the second grade.

In order to achieve the research's objective, the two researchers formulated the following zero hypotheses: There is no statistically significant difference at the level of (0.05) between the average grades of the pilot group's students, which examined the prescribed article by adopting the cognitive apprenticeship strategy and the students of the control group who studied the same subject by adopting the usual method of the social learning appetite scale. And there is no statistically significant difference at the level of (0.05) between the average grades of the pilot group students, which examined the

[4] Jacob Filgona et al., "Asian Journal of Education and Social Studies," n.d.
[5] K K TripaThy, "Need for Activating the Desire to Learn among Learners to Raise the Quality of Education," *The NCERT and No Matter May Be Reproduced in Any Form without the Prior Permission of the NCERT*. 44, no. 3 (2018): 39.
[6] TripaThy.
[7] Helmy Mohamed Helmy El-Feel, "The Effectiveness of a Training Program Based on the Cognitive Apprenticeship Model in Improving Strategic Thinking Skills and Learning Efficiency among Female Secondary School Students," *Egyptian Journal of Psychological Studies* 26, no. 91 (2016): 62–72.
[8] El-Feel.

prescribed article by adopting the cognitive apprenticeship strategy and the control group students who studied the same subject by adopting the usual method of knowledge depth.

Search Limits

This research is limited to students in the second grade of the day schools of the Directorate of Qadisiyah Education Academic year (2023-2024). The third edition of 2021 contains the last four chapters on the article of history.

Definition of terminology

Cognitive Apprenticeship Strategy

Procedurally, it is defined as: "A teaching strategy in which learning is in the form of tasks performed by students in teams, interacting with each other in activities that help achieve the tasks, and in which pupils go through some stages: modeling, questioning, training, reflection, exploring for specific goals, in which the role of a teacher is guided and directed to students.

Desire to learn

Al Feel defined it as the learner's need to reach the greatest satisfaction with himself through a deep understanding of what information he needs, knowledge and ability he wants to gain through certain subjective, social and educational determinants [9]. Procedural definition: a sample representative of the content of the behavioural scope of the understanding of the desire to learn, which is measured by the macro-scale method obtained by the respondent to its response to the paragraphs of the "desire to learn" scale.

Knowledge depth defined by (webb, 2002)

The educational process requires teachers to explain the depth at which learning takes place, which teachers must reflect this depth and determine the purpose of their teaching to students and thus evaluate students on information held by the learner for life (webb, 2002:88)

Conceptual framework

Cognitive Apprenticeship Strategy

The cognitive apprenticeship strategy is a modern educational strategy that has proven to be effective in addressing some of the problems related to developing thinking skills by providing a typical environment that enables students to develop different thinking skills to be experts, and depends on providing four dimensions to the environment Learning which is: Content: Knowledge and thinking methods; Teaching methods: refers to learning strategies; Sequencing: It shows how learning skills are structured according to the principles of complexity and diversity. And social dimension:

[9] Azhar Alwan Kashash and Nour Alwan Karim, "Depth of Knowledge among Primary School Students," *Resmilitaris* 13, no. 1 (2023): 584–93.

Demonstrates the impact of collaborative and realistic learning on self-motivation development of learning and communication [10].

Cognitive apprenticeships depend entirely on teaching the cognitive and beyond cognitive skills learners need in a course in which the teacher clarifies the internal knowledge processes used to solve complex tasks with a view to enabling students to apply information and knowledge in new and complex situations. It thus helps develop learners' higher thinking skills and transform the social relationship between teacher and student into dialogue and discussion aimed at solving problems according to specific objectives [11].

Cognitive apprenticeships begin by modelling the skills to be learned in front of the learner, and then the period of the learner's training on these skills comes through a collaborative solution to the problems; In order to be able to use these skills, the goal of the training phase is to implement the mental model of being a learner during the modeling phase, and the training must continue until the learner is ready to integrate into the problem solving itself, by which time the role of the teacher must vary and his role in providing corrections is limited when the learner has difficulty [12].

The importance of the cognitive apprenticeship strategy lies in its emergence from the traditional apprenticeship concept, which has been a fundamental way of teaching and learning since ancient times. As Apprenticeships were a means of conveying the necessary knowledge through the exercise of experiences, and Collins and his colleagues developed the concept in 1989 to combine both traditional apprenticeships and realistic cognitive theory, where learning becomes more effective by observing learners for an expert role and working within real tasks so that learners can apply what they learned in their real life situations. Cognitive apprenticeships help Maha Rt to address ideas and information by developing cognitive and beyond cognitive skills. A teacher or expert assists less experienced learners by adopting several methods to deliver, represent and build knowledge, train in its use and provide support and guidance to build effective learning.(Mahmoud, 2021:165).

The importance of cognitive apprenticeships is reflected in: Enhancing learners' sense of motivation towards learning, achievement and self-confidence; Learning educational content through problem solving activities and not just memorizing information; Developing learners' higher thinking skills; Promote a deep understanding

[10] Nicole R Pinelli et al., "Identifying the Presence of Cognitive Apprenticeship in the Layered Learning Practice Model," *American Journal of Pharmaceutical Education* 82, no. 1 (2018).
[11] H M Kasinath, "Technology-Based Cognitive Apprenticeship for Empowering Children with Disabilities.," *Journal on Educational Psychology* 2, no. 4 (2009): 20–26.
[12] Pinelli et al., "Identifying the Presence of Cognitive Apprenticeship in the Layered Learning Practice Model."

of the treatment and representation of information and ideas, generate knowledge and build a mentality of finding a solution. And encourage training, guidance and focus on mastery and practice [13].

Knowledge Depth

The concept of cognitive depth goes back to the scientist (Webb) who first put forward his theory in cognitive depth, where webb represented the cognitive component at four major levels, and each of these levels takes the type of thought processes and these levels are:

Remembrance and Reproduction

This level requires students to reproduce knowledge and skills related to curriculum elements related to the subject. This level usually involves students dealing with truth retrieval, definition of terminology, and carrying out simple tasks.

Application of concepts and skills

Students are required to highlight differences or comparison and reformulate information from one form to another. It also requires classifying objects into meaningful categories, explaining issues, problems and patterns, and clarifying relationships.

Strategic Thinking

This level of students requires the ability to use higher thinking processes, such as analysis and evaluation, to draw and predict results. Tasks in this class of students require the coordination of knowledge and skills from multiple areas to implement the required processes.

Extended thinking

This level of students requires the use of more advanced higher thinking processes, such as composition, meditation and evaluation, and represents the level of multiple thinking in complex logical thinking, planning and thinking over time [14].

The Knowledge Depth Theory considers that these levels show that the mental processes practised to reach an answer or solve complex sentences are different from Bloom's classification of knowledge in scope and application although there is a correlation between the nature and type of complexity of thinking between Bloom's knowledge level theories and Loeb's knowledge depth [15]. In order to develop the depth of knowledge of students, they must have the opportunity to search for relevant information as well as to

[13] Reem Talal and Abdullah Bin-Salman, *A Teaching Program Based on Cognitive Apprenticeship and Its Effectiveness in Developing Lateral Thinking Skills and Mathematical Communication among Female First-Year Secondary School Students in Riyadh* (College of Education, Imam Muhammad bin Saud Islamic University, Riyadh, 2020).

[14] Salim Ibrahim Al-Khazraji, *Contemporary Methods in Teaching Science*, 1st editio (Dar Osama for Publishing and Distribution, Jordan., 2011).

[15] Marge Petit and Karin Hess, "Applying Webb's Depth of Knowledge and NAEP Levels of Complexity in Mathematics" (NCIEA. Retrieved from http://www. nciea. org/publications/DOK_KH08. pdf, 2006).

seek out relationships between result and cause as well as focus on detail and learning in context [16].

The world noted [17] that students should build their own deep understanding by providing them with assistance by identifying a mechanism to ensure that teachers teach students the level that will enhance students' attainment by identifying their past knowledge. by linking previous information with new information and using graphic presentations that allow them to move beyond the knowledge they have acquired ". and demonstrate their understanding by providing applications that contribute to application within new and authentic contexts and situations[18].

The desire to learn

The desire to learn is a term consisting of two words are (desire and learning) and each of these two words have a different meaning, the desire is taken from the desire for the thing and is taken from the meaning of the request for the thing, either idiomatically "means the desire to manage the thing with care for it, if it is said desired comes in the sense of keenness on it, and the desire in the English language in the sense of (Interest) can be interpreted as a trend to give attention and work, and activities or conditions that are the subject of the desire attached to joy. It is the driving force of behavior [19], as well as the enjoyment of learning, putting more time and effort, and orientation towards mastery and curiosity in learning difficult tasks [20].

As for (Al-Fil, 2018), his definition of the concept of the desire to learn is the learner's need to reach the maximum degree of satisfaction through a deep understanding of what he needs from the information, and mastery of what increases his acquisition of skills and experience, and that this desire is formed through some self-determinants, social and educational (Al-Fil, 2018: 211).

Both Doppelt and Schun [21] argue that if you have the desire to learn in order to do a task, you must be motivated to do so [22]. Students who are internally motivated are more persistent and can achieve specific goals and participate in scientific activity, and

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[16] David Bennet and Alex Bennet, "The Depth of Knowledge: Surface, Shallow or Deep?," *Vine* 38, no. 4 (2008): 405–20.

[17] L M Peticolas et al., "Using Backward Design in NASA Educational Resources," in *AGU Fall Meeting Abstracts*, vol. 2003, 2003, ED51C-1207.

[18] Peticolas et al.

[19] Richard M Ryan, *The Oxford Handbook of Human Motivation* (OUP USA, 2012).

[20] Karin Scager et al., "Do Honors Students Have More Potential for Excellence in Their Professional Lives?," *Higher Education* 64 (2012): 19–39.

[21] Yaron Doppelt and Christian D Schunn, "Identifying Students' Perceptions of the Important Classroom Features Affecting Learning Aspects of a Design-Based Learning Environment," *Learning Environments Research* 11 (2008): 195–209.

[22] Doppelt and Schunn.

have greater self-organization [23] indicates that internal motivation is not reduced by using rewards, but providing rewards before work as incentives leads students to believe that they have participated in behavior in order to obtain the reward, so the focus of students is on the reward and not on learning that is valuable in itself, and this helps teachers to distinguish between positive appreciation and rewards [24].

Glaser's selection theory is the best explanation for the concept of a desire to learn. This theory is based on the premise that human beings are able to choose behaviour that responds to different attitudes or is a positive, constructive or negative choice. The theory of choice shows that all of our behaviour, and all of our behaviors, are internally motivated to reflect the theory of external control, which claims that all of our behaviors are externally motivated and are one of the most comprehensive and evolving behavioural theories of internal control [25].

In Glaser's view, there are four psychological needs that an individual tries to satisfy: Need for affiliation or interaction: People want to receive love, belonging and association from others, and human beings feel better if they are able to give love and accept others; The need for efficiency: and includes achievement, success, victory, recognition, sense of self-worth, self-efficacy and the power of a sense of strength, competence, appreciation and evaluation by one side and others; The need for freedom: to mean that there is no choice without freedom, it is necessary to get rid of restrictions that restrict thought, movement, decision-making and any individual's personal activity to liberate energy, preparedness and talent. And Having Fun: satisfying the need to entertain and entertain oneself through the practice of activities and hobbies. Joy for happiness and enjoyment is the reward for learning for pleasure [26].

Pintrich & DeGroot (1990) indicate that there are three personal factors that affect the learner's desire to learn: Value: It is the value of the task and its importance to learners; Beliefs: It is the beliefs of learners about their ability to perform this task. And conscience: It is the emotional reaction of learners about the task [27].

Rogevin also pointed out that there are four factors for implanting The desire to learn among students, which are: Good organization of courses so that the objectives are clear, and specific to a timetable, to achieve them in innovative educational ways to

[23] Dennis R Brophy, "Understanding, Measuring, and Enhancing Individual Creative Problem-Solving Efforts," *Creativity Research Journal* 11, no. 2 (1998): 123–50.
[24] Brophy.
[25] Ezrina L Bradley, "Choice Theory and Reality Therapy: An Overview," *International Journal of Choice Theory and Reality Therapy* 5, no. 1 (2014): 6–14.
[26] Z. Rapport, "Positive Addiction: Self Evolution and Teaching Tools," *International Journal of Reality Therapy* 24, no. 1 (2004): 45–72.
[27] Sereen M Jubran, Fadi S Samawi, and Naifa H Alshoubaki, *The Level of Students' Awareness of the Self-Monitoring Strategy of Reading Comprehension Skills in Jordan and Its Relationship with the Desire to Learn\Dirasat: Educational Sciences.-2014, Vol. 41, No. 1, Suppl. 1, Pp. 624-637* (University of Jordan, 2014).

provide quality content; Using various techniques and tools to suit the type of different learning styles of students To achieve integration within the classroom. For example, discussing current events related to the topic of the lesson. And include practical applications in the classroom; and here it consolidates the experience, because it pushes students to take responsibility and encourages them to analyze, interpret and conclude.
Providing many illustrative examples, communicating closely with them, linking with them, and conducting discussions and dialogues with them in many matters, and that the professor is always available to students The professor is a key factor in influencing the desire to learn among his students, his proximity to them, his association with them and their entry into discussions with them (Al-Fil, 2018:212).

Research methodology and procedures

Research methodology

In order to reveal the impact of the cognitive apprenticeship strategy in the depth of knowledge and the desire to learn in the students of the second grade medium in the subject of sociology, the researchers followed the experimental curriculum that seeks to address certain variables under controlled conditions.

Experimental design

To achieve the research hypotheses, the two researchers relied on a partial-tuned experimental design that was based on the selection of one experimental group and then studied in a cognitive apprenticeship strategy and a control group that studied in the usual way. The variant of both the cognitive depth test and the learning appetite scale is then measured, as shown in figure (1).

<table>
<tr><th>Pre- Test</th><th>Independent variable</th><th>Valences</th><th>Group</th></tr>
<tr><td rowspan="2">1.Cognitive depth test
2. Desire to learn scale</td><td>Cognitive apprenticeship strategy</td><td rowspan="2">1. Chronological age
2. Intelligence
3.Previous achievement
4. Parental achievement
.5 Desire to learn scale</td><td>Experimental</td></tr>
<tr><td>The usual method</td><td>Control</td></tr>
</table>

Figure 1. Experimental design of the two research groups

The research community.

The research community includes middle-grade students in the middle-level schools belonging to the Directorate of Qadisiyah Education, which are within the boundaries of the Diwaniyah governorate's 3,546 students.

Final research sample.

After placing all schools in the draw, Mohammed al-Baqer School was selected at random, which includes (4) people in Balah (143) Student, divided into four divisions and also by random selection method The division was selected (a) To represent the pilot group by 36 students and division (c) to represent the control group by reality (35) Student, after the exclusion of the students who failed, the total number of students who were tested (63) Student as shown in the schedule (1).

Table 1. Number of students in the research sample before and after exclusion

N.O after exclusion	**Excluded**	**Before and after exclusion**	**Branch**	**Group**
33	3	36	A	**Experimental**
32	3	35	D	**Control**
65	6	71		**Total**

Seizure procedures

The following measures have been adopted: Internal safety: To achieve this, parity between the two groups has been adopted in the light of the following variables: Age of female students is calculated by months: After the age of the students was sorted from the register of enrolment, the calculation of the average calculation and the standard deviation of each group, using the T test for two separate samples, showed no difference between the two groups and a table (2) showing this.

Table 2. Parity of Experimental and Control Research Groups in Time Age Variable

Indication level on 0.05	**T value**		**Standard deviation**	**SMA**	**N.O**	**Variables**
	Tabular	**Calculated**				
Non statistically significant	2	0.721	6.362	169.12	33	**Experimental**
			3.658	168.18	32	**Control**

2- IQ test: after the application of the test (Carter & Ken 2007) (*). And Correction of answers The significance of differences between the two groups was

revealed using the T test of two separate samples and there was parity between the two research groups.

Table 3. Parity of the Two Research Groups in Intelligence

Indication level on 0.05	T value		Standard deviation	SMA	N.O	Variables
	Tabular	Calculated				
Non statistically significant	2	-1.002	3.64	27.81	33	**Experimental**
			2.46	28.59	32	**Control**

3- Previous information: Certification of half-year societal scores applied to the test for two separate samples and demonstrated parity of the two research groups

Table 4. Parity of the two research groups in previous information

Indication level on 0,05	T value		Standard deviation	SMA	N.O	Variables
	Tabular	Calculated				
Non statistically significant	2	0.584	8.23	73.78	30	**Experimental**
			9.92	72.46	31	**Control**

4-Learning Desire Scale: After applying a final learning desire scale, the difference between the two groups was calculated using the T test of two separate samples.

Table 5. Parity of the two research groups in the Learning Desire Scale

Indication level on 0,05	Tabular value	Calculated T value	Standard deviation	SMA	Variables
Non statistically significant	2	0.384	14.17	60.83	**Experimental**
			13.06	59.53	**Control**

5- Parents' educational achievement. To achieve parity in parents' educational achievement, the school card was used, after the level of achievement was sorted, and the results showed parity between the two groups.

Table 6. Parental attainment equity research groups

Fathers achievement									
Achievement Group	Sample volume	Primary	Intermediate	Middle school	Bachelor	Degree of freedom	Ka value 2		Indication level 0.05
							Calculated	Tabular	
Experimental	33	8	7	10	8	3	1.024	7.81	Non statistically significant
Control	32	10	6	11	5				
Mothers achievement									
Experimental	33	6	10	8	9	3	1.466	7.81	Non statistically significant
Control	32	9	8	9	6				

External safety

To safeguard the experiment internally and remove it from the effect of variables, a set of measures have been taken to adjust which are: The individuals of the two research groups: - The procedures for selecting the sample followed the draw and in order to be assured the equity of the two groups was verified statistically; Educational Course: - One course has been defined for two experimental and control groups. It has been limited to the last four semesters of the social course. The third edition of 2021 is related to the subject of history and is scheduled to be taught in the academic year (2022-2023); Distribution of lessons: - The two researchers underwent the school's lesson schedule, which included teaching two lessons per group per week; Giving lessons: The two researchers taught all classes to the two research groups the length of the experiment; The classroom climate of the two groups: - The two researchers tried to create a classroom environment similar to the two research groups in terms of lighting, ventilation and seats; Educational means: - Used the board and colored pens, as well as some illustrations. And Duration of the experiment: - The two researchers were keen to give one time to apply the experiment to the two research groups starting on 20/3/2023 and ending on 10/5/2023 day.

Search requirements.

Identification of scientific material

The experience was limited to teaching the last four semesters of the sociology book course for the second grade on the themes of history exclusively, the third edition of the year (2021)

Determination of behavioural purposes

Based on the general objectives of teaching social subjects, 120 behavioral purposes were formulated according to Bloom's cognitive classification of its levels (recollection, understanding, application, analysis, composition, evaluation).

Preparation of teaching plans

The two researchers (40) prepared a teaching plan for both groups with a 20 for each group. After presenting models of the plans to a group of specialists in history teaching methods and general methods, more than 80% were accepted.

Research tools: two tools are required to measure the depth of knowledge and the desire for learning.

First: Cognitive Depth Test: To build a test commensurate with the second grade average according to the social subject: Objective of cognitive depth test: Cognitive depth measurement included students in the second grade average in sociology for the last four classes of history; Determination of the number and type of test paragraphs: After consultation with the specialized teachers and supervisors of the subject of social and teaching methods, and having been informed of the behavioural purposes of 120, it was agreed to define 40 test paragraphs. The two researchers drafted thirty-five thematic test-type paragraphs, and five essay-type paragraphs.

And correction of test: The substantive paragraphs have four alternatives before each paragraph and the respondent has to choose one of these alternatives, which includes one correct choice and the rest of the three alternatives are wrong, in the light of which a degree is given (1) When selecting the correct alternative, it is given (0) when selecting the wrong alternative and when leaving the paragraph unanswered or when it places a signal on more than one alternative given (0) Also, the article paragraphs are corrected from (0 - 3). The answer to the question contains three ideas for each idea of one degree.

Sincerity Cognitive Depth Test:

The two researchers achieved two types of sincerity:

Ostensible honesty:

Presentation of the cognitive depth test to 10 arbitrators with competence in education, with behavioral purposes, a model of teaching plans and a schedule of specifications in order to examine these contents and know their suitability to measure the content prepared for measurement and in the light of their opinions and observations the arbitrators received approval (80%) and above all paragraphs with some modifications.

Build Sincerity (Statistical Analysis Sample):

To determine the efficiency of the cognitive depth test paragraphs on the distinction between individuals' responses to weak paragraphs, the test was applied to a sample of 150 students in the second grade; After correcting the responses, the following characteristics were extracted: First: Differentiation Factor: Both difficulty and ease were calculated after correction of the responses of the members of the sample, extraction of the total grade and its upward arrangement and extraction of the ratio (27%) to represent the upper group (27%) to represent the lower group, then applied after calculation of the differentiation factor for each paragraph and all paragraphs turned out to be distinct factor between (0.29 - 0.67); Second, the factor of difficulty and ease: the same steps followed the factor of discrimination, difficulty and ease and showed that their values ranged from 0.26 to 0.77, which means acceptance of all paragraphs and table (8) shows this.

Table (8) Values of difficulty factor, ease and distinction to test cognitive depth

Difficulty Factor	Ease coefficient	Discrimination coefficient	Lower higher group	Correct higher group	Sequence Paragraphs
0.55	0.45	0.56	7	30	1
0.52	0.48	0.70	5	34	2
0.53	0.57	0.60	11	36	3
0.37	0.63	0.68	12	40	4
0.48	0.52	0.66	8	35	5
0.60	0.39	0.44	7	25	6
0.42	0.58	0.31	13	26	7
0.52	0.48	0.46	10	29	8
0.38	0.62	0.51	15	36	9
0.52	0.48	0.63	7	33	10
0.40	060	0.66	11	38	11
0.57	0.43	0.61	5	30	12
0.66	0.34	0.54	3	25	13
0.49	0.51	0.68	7	35	14
0.39	0.61	0.48	15	35	15
0.49	0.51	0.59	9	33	16
0.59	0.41	0.34	10	24	17
0.59	0.41	0.44	8	26	18
0.57	0.43	0.66	4	31	19
0.40	0.60	0.56	13	36	20
0.41	0.39	0.63	3	29	21
0.51	0.49	0.44	11	29	22

0.54	0.44	0.58	6	30	23
0.77	0.33	0.51	3	24	24
0.76	0.34	0.56	2	25	25
0.55	0.45	0.46	9	28	26
0.49	0.51	0.68	7	35	27
0.53	0.47	0.65	6	33	28
0.60	0.40	0.46	7	26	29
0.66	0.44	0.48	8	28	30
0.60	0.40	0.76	1	32	31
0.66	0.44	0.68	4	32	32
0.51	0.49	0.49	10	30	33
0.72	0.38	0.66	2	29	34
0.45	0.55	0.71	8	37	35
0.65	0.35	0.38	19	66	36
0.59	0.41	0.31	32	70	37
0.66	0.34	0.26	26	58	38
0.66	0.34	0.35	21	64	39
0.65	0.35	0.36	20	65	40

The effectiveness of the wrong alternatives.

To find out the value of the alternatives' achievement as camouflages from attracting the attention of the low-performance statistical analysis sample, the alternatives' effectiveness equation was applied and the results proved acceptable as the values of those alternatives ranged from (-0.111 - -0.225).

Stability

To achieve stability, the two researchers used the method of analysis of variation using the Fakrenbach equation using all the data underwent statistical analysis, and it may be explained that the value of the constant coefficient was (0.810) degrees. The cognitive depth test is thus ready for final application.

Learning Desire Measure

After reviewing previous studies on the Learning Desire Scale, the researchers built a scale according to the following steps:

The objective of the scale:

To verify the impact of the cognitive apprenticeship strategy on the willingness to learn in students of the second grade average in the subject of sociology.

Identification of theoretical premises

The researchers have relied on the definition of Al-feel that the learner needs to reach the greatest satisfaction with himself through a deep understanding of what

information he needs, knowledge and ability he wants to gain through certain subjective, social and educational determinants [28].

Formulation and correction of measurement paragraphs

After reviewing a number of benchmarks built on university students, paragraphs commensurate with the research community were prepared consisting of (30) paragraphs that were all drafted in the form of reporting phrases. They were placed in front of each paragraph four alternatives, namely (fully applicable to me, often applicable to me, sometimes, never applicable to me) and the key to correcting these alternatives (4, 3, 2 and 1) respectively.

Validity of Learning Desirability Clauses

The measure as preliminary was presented to (10) arbitrators specializing in education and psychology for their opinions and observations on the validity of the measure for the sample of research. After all opinions and amendments, the percentage was adopted and all paragraphs were accepted at the 80% standard and above.

Sincerity of the build (Statistical Analysis)

After applying the learning desire scale to a random sample of 150 students from the second grade average, the following statistical methods were calculated:

discriminatory force.

After correcting the students' answers, extracting the college degree, hence arranging the grades downward and then taking the ratio (27%) as the upper group, (27%) as the lower group thereafter calculated the T test for two separate samples. The acceptance of all paragraphs other than paragraph (21. 22. 29) when compared to the tabular value (1.98), the indicative level (0.05), the degree of freedom (106), the paragraph and the table (9).

Table 9. Calculated T value for each of the Learning Desire Scale paragraphs

Indication	**Calculated T value**	**Lower groul**		**Higher group**		**Paragraphs**
		Standard deviation	SMA	Standard deviation	SMA	
Significant	3.346	.92129	2.4146	1.11585	3.1707	**1**
Significant	2.896	1.01092	2.3171	1.19348	3.0244	**2**
Significant	2.118	.86743	2.4390	1.00487	2.8780	**3**
Significant	2.413	.94223	2.3659	1.06782	2.9024	**4**
Significant	4.743	1.14976	2.6829	.49386	3.6098	**5**
Significant	7.050	.95125	2.4634	.56741	3.6829	**6**
Significant	5.757	.99756	2.1707	.74980	3.2927	**7**

[28] Kashash and Karim, "Depth of Knowledge among Primary School Students."

Significant	5.135	1.11257	2.3659	.62762	3.3902	**8**
Significant	5.434	.97593	2.4390	.71055	3.4634	**9**
Significant	7.187	.94804	2.5854	.43477	3.7561	**10**
Significant	6.831	1.03947	2.3415	.62274	3.6341	**11**
Significant	4.065	1.01513	2.3415	1.04939	3.2683	**12**
Significant	2.748	1.09266	2.6098	.99450	3.2439	**13**
Significant	4.095	.96840	2.3659	.67805	3.1220	**14**
Significant	5.899	.74244	2.2683	.67895	3.1951	**15**
Significant	5.747	.81973	2.3171	.67173	3.2683	**16**
Significant	6.705	.90997	2.1463	.64958	3.3171	**17**
Significant	7.589	.88827	2.2439	.59674	3.5122	**18**
Significant	7.180	.79403	2.3415	.74326	3.5610	**19**
Significant	7.336	.63149	2.4146	.77617	3.5610	**20**
Significant	1.214	1.05345	3.1220	.94546	3.3902	**21**
Significant	1.927	1.26057	2.7561	1.01933	3.2439	**22**
Significant	2.692	1.23516	2.7805	.86532	3.4146	**23**
Significant	3.467	1.12943	2.7805	.89579	3.5610	**24**
Significant	2.954	1.22275	2.8293	.92460	3.5366	**25**
Significant	2.744	1.17026	2.9268	.80925	3.5366	**26**
Significant	2.106	1.13911	2.9512	.94997	3.4390	**27**
Significant	2.711	1.28262	2.8293	.97780	3.5122	**28**
Significant	1.443	1.17234	2.9756	.96018	3.3171	**29**
Significant	3.808	1.33435	2.6585	.80547	3.5854	**30**

Internal consistency of scale:

To verify internal consistency and after the deletion of three paragraphs (21, 22, 29) and to disclose the relationship of the paragraph's grade to the overall degree of the scale, the Pearson correlation coefficient was used. The calculated correlation value (0.393-0.543), at an indicative level (0.05) and freely (148), was compared to the calculated tabular value (0.089).

Stability: -Reliability

Based on the consistency of the Alpha-Cronbach variability analysis learning scale by subjecting all of the statistical analysis sample forms (150), after applying the equation the constant value (0.831) was found to be a score.

Presentation and interpretation of research results

The first zero hypothesis

there is no statistically significant difference at the level (0.05). Between the average grades of the pilot group students who studied the prescribed subject by adopting the cognitive apprenticeship strategy and the control group who studied the same subject by adopting the usual method in the knowledge depth of the social subject.

To reveal the impact of the strategy, the dimensional cognitive depth test was applied to the core sample, corrected and the total score extracted. The difference between the two groups was identified using the T test of two independent samples, as shown in table 10.

Table 10. T test for two separate samples for the two research groups in the cognitive depth variant

Indication	**Tabular T value*) (**	**Calculated T value**	**Standard deviation**	**SMA**	**N.O. of personnel**	**Groups**
Significant	2	6.83	5.97	37.45	30	**Experimental**
			6.04	27.25	30	**Control**

Based on the results of table (10) it rejects the zero hypothesis and accepts the alternative hypothesis that there are statistically significant differences at the level (0.05) between the average grades of the pilot group students studied in the light of the cognitive apprenticeship strategy and the average grades of the control group students who have studied in the usual way in the knowledge depth of the sociology subject. and for the benefit of the pilot group. With the aim of detecting impact size ((f) of the eta square T test, where the eta square is 0.653, while the impact is 0.426, which is significant.

The second zero hypothesis:

There is no statistically significant difference at 0.05 between the average grades of the pilot group students who studied the prescribed subject by adopting the cognitive apprenticeship strategy and the control group who studied the same subject by adopting the usual method in the learning appetite scale.

After the application of the scale of desire for distance learning and correction and extraction of the overall score, the indication of differences between the two groups was revealed using the T test of two separate samples and a table (11) showing this.

Table 11. Independent test for two research groups in the Learning Desire Scale

Indication	Tabular T value*) (	Calculated T value	Standard deviation	SMA	N.O. of personnel	The tow groups
Significant	**2**	3,91	19,78	88,93	**30**	**Experimental**
			19,57	69,84	**30**	**Control**

to table 11, the zero hypothesis is rejected and the alternative hypothesis that there are statistically significant differences at 0.05 between the average grades of the pilot group's students and the average grades of the control group's students in the learning appetite scale and for the benefit of the pilot group is accepted. With the aim of detecting the impact size (f for the eta square T test, where the eta square is 0.442, while the impact is 0.192, which is significant.

Interpret the findings on cognitive depth

The results indicated that the students of the experimental group who studied on the basis of the cognitive apprenticeship strategy outperformed the control group who studied in the usual way, in the achievement of the social subject, This can be explained by the characteristics of a cognitive apprenticeship strategy that helps to achieve active and learner-centred learning and has helped to link past knowledge with current knowledge and apply what they have learned in educational situations that have helped to express their thoughts and develop their ability to understand deeply.

Interpret results related to the learning appetite scale.

The results point to the superiority of the pilot group students who studied in the light of the cognitive apprenticeship strategy over the control group who studied in the usual way in the learning appetite scale. The researchers attribute this result to the fact that the strategy focused on the learner's positivity in a climate of alpha, cooperation and satisfaction that contributed to encouraging students to accept educational attitudes with their desire.

Conclusion

In the light of the results of the present research, we can draw the following conclusions: The cognitive apprenticeship strategy increases the level of deep understanding of knowledge. And adopting a cognitive apprenticeship strategy in teaching methods increases the desire for learning.

This research recommendations to encourage teachers to use modern methods and strategies that help learners develop their thinking and skills. And he urged curriculum makers to take care of deep understanding and desire for learning.

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