

The Effect of the Circular House on the Level of Cognitive Achievement in the Physical Education Lesson

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Abstract :

The research aims to knowledge effectiveness Use strategy the house ring on me Knowledge attainment level in Lesson Education sports And that From During Identify on me:-Effect Use strategy the house ring on me level achievement Cognitive for schoolgirls Stage education medium, and the researcher used the experimental method With an experimental design for one experimental group, due to its suitability to the nature of the research, the research community included female students of the sixth intermediate grade from Umayya bin Qais Intermediate School for Girls for the academic year 2021/2022 AD, whose number was (135) students. The research sample was chosen by the intentional method, and they numbered (30) students from the sixth intermediate grade students for the academic year 2021/2022 AD “the first semester.” (30) students were chosen as a basic sample, in addition to (10) students as a reconnaissance sample. The results showed the following: The contribution of the circular house strategy in improving the level of cognitive achievement for the members of the experimental group, and one of the most important recommendations is to put the proposed teaching units using the circular house strategy into practice on the specialty of teaching basketball due to its effectiveness on the level of cognitive performance.

key words:

Effectiveness-The circular house -Physical education lesson

تأثير البيت الدائري على مستوى التحصيل المعرفي بدرس التربية الرياضية

مستخلص البحث

يهدف البحث إلى معرفة فاعلية استخدام استراتيجية البيت الدائري على مستوى التحصيل المعرفي في درس التربية الرياضية وذلك من خلال التعرف على:- تأثير استخدام استراتيجية البيت الدائري على مستوى التحصيل المعرفي لتلميذات مرحلة التعليم المتوسط ، واستخدمت الباحثة المنهج التجريبي ذو التصميم التجريبي لمجموعة واحدة تجريبية وذلك لملائمته لطبيعة البحث، اشتمل مجتمع البحث على تلميذات الصف السادس المتوسط من مدرسة أمية بن قيس المتوسطة بنات للعام الدراسي ٢٠٢١/٢٠٢٢م، والبالغ عددهم (١٣٥) تلميذة. تم اختيار عينة البحث بالطريقة العمدية، وبلغ عددهم (٣٠) تلميذة من تلميذات الصف السادس المتوسط للعام الجامعي ٢٠٢١م/٢٠٢٢م" الفصل الدراسي الاول وتم اختيار (٣٠) تلميذة كعينة أساسية بالإضافة إلي (١٠) تلميذات كعينة استطلاعية، وقد أظهرت النتائج ما يلي : اسهام استراتيجية البيت الدائري في تحسن مستوي التحصيل المعرفي لأفراد المجموعة التجريبية، ومن أهم التوصيات وضع الوحدات التعليمية المقترحة باستخدام استراتيجية شكل البيت الدائري موضع التنفيذ على تخصص تدريس كرة السلة لما بين فاعليته على مستوي الأداء المعرفي.

الكلمات المفتاحية:

فاعلية -البيت الدائري- درس التربية الرياضية

The Effect of the Circular House on the Level of Cognitive Achievement in the Physical Education Lesson

Introduction and research problem:

Physical education plays an important role in providing appropriate growth opportunities in preparing young people in a sound and integrated numbers in terms of physical, mental and psychological, as it is an important element in the development process, so taking care of

physical education was a national responsibility to create a strong and balanced generation.

And teaching is the organization and management of educational situations with the intention of making a change in the personality of the learner, and the means used by the teacher in the organization and guidance of the educational situation are known as teaching methods and it is worth noting that the learning methods used in most educational institutions are largely based on the teacher and the unit and few of them are borne by the student, but the positive interaction between the teacher and the learner is almost unnoticeable. (2: 110)

The physical education lesson is a mini-unit that achieves the integrated construction of the physical education curriculum distributed during the school year into small units that end with the achievement of the goals as a whole, and the implementation of physical education lessons, which is one of the most important duties of the educational teacher.

The second half of the twentieth century has witnessed an amazing development in the field of teaching methods of physical education and multiple teaching methods, and I have classified teaching methods into ten different methods and explained that the goal of these methods is the acquisition of the student of skills and sports activities and the development of the spirit of innovation and speed of thinking and decision-making in different motor situations. (6 :5)

Makarem Abu Harja (2005) refers to the emergence of many teaching methods and strategies that aim to achieve the goal of the educational process, and these strategies include the metacognitive strategy (Circular House Strategy) . (56: 92)

Therefore, metacognitive strategies contribute significantly to the development of thinking skills and the acquisition of concepts in students, when the student thinks, he is able to control the thought processes, so that he perceives learning as a unit with concepts interconnected with each other, and not a set of scattered information (7: 52).

There are many metacognitive strategies that are used in teaching, including: brainstorming strategy, self-questioning strategy, thinking aloud strategy, and also the circular house shape strategy, It is one of the organizational charts of scientific knowledge, and it is in the form of a two-dimensional circular geometric shape, divided by an optional line and surrounded by seven external sectors, so that it represents the shape of the conceptual structure of a limited part of the knowledge (61: 26).

Search problem:

The circular house strategy is a metacognitive approach proposed by Wandersee (1994) and given by Ward Robin Eichel & Wandersee, J. H. This name of the circular house strategy is an analogy to the circular structures used in railways Switch train cars, so that the central shape represents the main basic idea, and the main idea is divided into two parts with the aim of fragmenting the basic idea, and the shape of the circular house is a two dimensional circular geometric drawing, consisting of a central circle divided by an optional line surrounded by seven sectors, so that these sectors represent the conceptual structure of part of the knowledge, and the surrounding seven sectors are used to divide difficult concepts, or to arrange the sequence of events, or to learn Problem solving steps, so that learners fill in the shape starting from the 12 o'clock position and clockwise. (75: 578)

Some studies have dealt with the form strategy ‘Some studies have dealt with the strategy of the shape of the round house, including the study of Asmaa AlJunaih (2011), which indicated the effectiveness of the circular house strategy in developing the academic achievement of second-grade intermediate students in Saudi Arabia, and the study of Haya Al-Mazrou (2005), which showed the effectiveness of the circular house strategy in developing metacognitive skills and achievement among secondary school students, and the study of Huda Abdel Samie and Maysa Nadim (2016), which showed that the circular house strategy is more positive than the American method in developing some motor abilities. And that it has a positive impact on the development of the accuracy of the volleyball transmitter. (11 :61 – 60)

Hence this study came to identify the effectiveness of the circular house strategy, and to study its impact on the level of cognitive achievement of the physical education lesson.

The researcher believes that the circular house strategy is a modern strategy that can be relied upon in teaching with the aim of improving and developing the level of students by distributing knowledge to students in a specific and planned manner that helps them learn skills in the lesson.

From the above, the importance of the current research is evident as an attempt to find out the effectiveness of using the revolving house strategy.

From the above, the importance of the current research is evident as an attempt to find out the effectiveness of using the circular house strategy in achieving educational goals in addition to its role in learning cognitive achievement in the physical education lesson.

Through the researcher's practice of the teaching profession at Umayyah Bint Qais Intermediate School for Girls in the State of Kuwait, she noticed that there is an urgent need to use these strategies in learning the lesson, due to what the world now surrounds from the spread of the Corona virus and after the cessation of the direct educational process, and from here the research problem is determined in answering the following question: What is the effect of using the circular house strategy on the level of cognitive achievement in the physical education lesson?

Research Objectives:

- 1- Knowing the effectiveness of using the circular house strategy for cognitive achievement in the physical education lesson.
- 2- Identify the differences between the average scores of the research sample for the pre- and post-measurements of the experimental group in the level of cognitive achievement.

Research Hypotheses:

There are statistically significant differences between the averages of the scores of the pre- and post-measurements in the level of cognitive achievement of intermediate education students in favor of the post-measurement.

Search terms:

□ Effectiveness:

A concept that expresses the validity of the elements used (inputs) to obtain the desired results, it is a relationship between the type of input and the output (outputs) or it is the ability to produce an effect (36: 30)

□ Round House Strategy:

A process consisting of three steps (planning - drawing - reflection) so that planning is done by recording the most important main ideas from the content and drawing is done simply by placing icons and symbols in the seven sectors, in which case the teacher discovers misconceptions and beliefs. (69: 119)

□ Physical Education Lesson:

It is the classroom activities that are provided to students through the teacher in application of educational content for some sports activities specified by the Ministry of Education to be implemented in the first and second semester of each academic year.

(Procedural definition)**Related studies:**

- 1- A study entitled "Employing the Circular House Strategy in Developing Reading Comprehension and the Trend Towards Teaching Reading among Arabic Language Learners Speaking Other Languages" (Abu Al-Dahab Al-Badry Abu Al-Dahab, 2019)

The researcher used the experimental approach due to its suitability to the nature of the research, and the research sample consisted of (35) students from the second level of the language preparation program, and to achieve the goal of the research, the researcher prepared a set of data collection tools that included: a test to measure reading comprehension skills, a measure in the trend towards teaching reading, and the results showed that there are statistically significant differences between the two measurements before and after in the development of reading comprehension skills and the trend towards teaching reading in favor of post-measurement.

- 2- A study entitled "The effectiveness of the circular house strategy in achieving and developing the trend towards science among third grade middle school students in the Arab Republic of Egypt" (Elham Mohamed Shehata, 2018)

The researcher used the experimental approach due to its suitability to the nature of the study and the research sample consisted of (76) students distributed over two semesters and to achieve the goal of the research the researcher prepared a set of tools that included: An achievement test in the specified unit, a measure of the trend towards science, and the results showed that teaching using the circular house leads to raising the level of achievement of students for the third grade of middle school in science.

- 3- 3-A study entitled "The effectiveness of the circular house strategy in acquiring chemical concepts among students of the upper basic stage" (Khalidoun Ahmed Al-Shloul, Muhammad Saeed Al-Sabbarini, 2018)

The researcher used the experimental approach due to its suitability to the nature of the study and the research sample consisted of (58) students by (29) students for the experimental group (29) students for the control group and to collect data the researcher prepared a set of tools that included: Testing chemical concepts, and the results showed a positive impact to employ the circular house strategy in acquiring chemical concepts among ninth grade students.

4-A study entitled "The Effect of the Circular House Shape Strategy on the Expressive Performance of Fifth Grade Primary Students (Raed Hamid Hadi, 2018)

The researcher used the experimental approach and the research sample consisted of (75) students by (40) students in the experimental group and (35) students in the armpit group of Al-Waleed Primary School To achieve the objective of the research, the researcher prepared a study toolkit, which included content analysis and achievement testing, and one of the most important results was the existence of a positive impact of teaching based on the home strategy on the level of students' achievement in expressive performance.

5-A study entitled "Mc Cartney And wadsworth McCartney Wadsworth" The effect of using the circular house strategy in absorbing a sample of students with learning disabilities for the concept of plant growth" (Mc Cartney, E, & Wadsworth, D, 2012)

To achieve the goal of the research, the researcher used the experimental approach, and the study sample consisted of (8) students from a middle school in the United States of America, where the tool of continuous and repeated individual interviews was used throughout the duration of its conduct, and the results of the study revealed the extent of students' satisfaction with this strategy, and its impact on encouraging them to speak without hesitation, and their enjoyment in building plans, and showed their improvement in understanding scientific concepts, as well as their importance in detecting any conceptual error that they may have.

Search Procedure:

Research Methodology:

The researcher used the semi-experimental approach with an experimental design for one experimental group because it is suitable for the nature of the research.

Research Community:

The research community included (135) female students of the sixth intermediate grade from Umayya Bin Qais Intermediate School for Girls for the academic year 2021/2022.

Research Sample:

The research sample was selected by the deliberate method, and their number reached (30) students from the sixth intermediate grade for the academic year 2021/2022 AD, the first semester, and (30) students were selected as a basic sample, in addition to (10) students as an exploratory sample and table (1) shows that.

Table (1)
Characterization of the community and the research sample

M	Indigenous Society	Basic Sample	Survey Sample
1	135	30	10

Means and tools of data collection:

Cognitive Achievement

Test Tools and devices.

Cognitive achievement test in basketball:

To build the cognitive test for the basketball major, the researcher took the following steps:

1-Determine the objective of the test:

In light of the objectives of the research, the objective of the cognitive test was determined and was to measure the level of cognitive achievement of the sample under research and it was taken into account that the test fits the age stage of the sample under research.

2-Determine the test axes:

To determine the axes of the cognitive test, the researcher referred to the description of the basketball course, and in light of this, the researcher prepared the survey form, the opinion of the experts, to determine the axes of the cognitive test for the basketball course (annex 2)) and their number (15) experts attached (1), in light of the general objective, educational objectives, behavioral, and the content of educational units of knowledge information associated with and to measure the level of achievement of students in them, to determine the main axes of the cognitive test for the research sample

3-Determine the relative importance of the test axes:

The researcher prepared a form to determine the relative importance of the test axes in the field of basketball, attached (2) The poll is the opinion of the experts and their number (15) experts attached (1) in order to determine

the relative importance of each axis of the cognitive test and table (2) shows that.

Table (2)
Expert opinions to determine the relative importance
of the cognitive test axes

(n=15)

M	Test Themes	Materiality	Repetition
1	History of basketball	20%	20
2	Skill aspects in basketball	35%	35
3	Tools and aids in learning basketball	25%	25
4	International law in basketball	20%	20
5	Total	100%	100

It is clear from Table (2) that the percentage of expert opinions on the axes of the cognitive test in basketball under study was (100%).

4-Formulation of test vocabulary:

The vocabulary of the test was formulated in its initial form, which numbered (60) items, and it came in its entirety of the type (right and wrong - multiple choice), and the following was taken into account in these vocabulary:

- a. Each item measures a particular learning outcome.
- b. Be suitable for the age and level of the sample.
- c. Be free of hints that lead to the right and wrong answer.
- d. To be comprehensive, scientifically accurate, clear, and not likely to pronounce more than one meaning, and is characterized by simplicity and linguistic ease.
- e. To measure the level of cognitive achievement of the selected main axes.
- f. It was also taken into account in the formulation of vocabulary to be at the levels after the first two levels according to the classification of Bloom" in the cognitive aspect of perception (application - analysis - synthesis - evaluation).

5-Presentation of the cognitive test in its initial form to the experts:

The cognitive test was prepared in its initial form, and it was taken into account that the vocabulary is diverse for the largest amount of information

in the main axes (Under research and included in the educational units, where the number of vocabulary (60) vocabulary was distributed to each axis randomly, attachment (4) and the instructions for the test were mentioned in the method of recording the answer and collecting information that helps in understanding the required phrases, then the test was presented in its initial form to a number (15) of experts in the field of basketball, annex (1), in order to express an opinion on the following:

- The appropriateness of the statements placed for the test axes.
- Scientific accuracy and linguistic formulation of the test vocabulary.
- Comprehensiveness of the test vocabulary for the information contained in the proposed educational units.
- The test is suitable for the nature and level of the sample.
- Clarity of test instructions.
- Make any comments or suggestions.
- The validity of the test for application.

The researcher used the percentage of the opinions of experts in order to extract the most appropriate phrases for each axis and the researcher was satisfied by 70% or more to accept the phrases. 6-Ferry order: The statements are arranged randomly to find the coefficient of ease and difficulty.

7-Coefficient of ease, difficulty and discrimination of the test items:

After presenting the cognitive test to the experts, the researcher applied the cognitive achievement test in its initial form to a sample of (20 students) during the period from 21/9/2021 AD to 23/9/2021 AD in order to calculate the coefficients of ease and difficulty for the test items using the following equation:

(single all on correct answer answered which the individuals number)
 Coefficient of ease =

(total individuals number)

The relationship between the coefficient of ease and the coefficient of difficulty is inverse, in the sense that their sum is equal to the whole one as follows:

Coefficient of ease = 1- Coefficient of difficulty

Coefficient of difficulty = 1- Coefficient of ease

Coefficient of difficulty and discrimination:

Calculation The coefficient of discrimination, the scores of the sample were arranged in descending order, to determine the upper 27% as well as the lower 27%, with the aim of determining the coefficient of excellence for each item using the following equation:

$$\frac{(\text{Lower Group in Correct Answers Number} - \text{Upper Group in Correct Answers Number})}{\text{Number of Respondents}}$$

Coefficient of Excellence = (The two groups are one in the respondents number)

Items that meet the following two conditions have been accepted: The difficulty coefficient should be between (0.3, 0.7).

The coefficient of discrimination should be more than (0.30).

Table (3) shows the coefficients of difficulty and discrimination for the vocabulary of cognitive achievement.

Table (3)
Coefficients of difficulty and discrimination for the vocabulary of the cognitive achievement test (n = 20)

Item number	Coefficient of difficulty	Coefficient of discrimination	Item number	Coefficient of difficulty	Coefficient of discrimination	Item number	Coefficient of difficulty	Coefficient of discrimination
1	0.50	0.67	21	0.60	0.67	41	0.65	0.67
2	0.55	0.50	22	0.60	0.83	42	0.60	0.83
3	*0.75	*0.17	23	0.14	*0.00	43	0.55	0.67
4	0.45	0.50	24	0.60	0.83	44	0.55	0.67
5	0.60	1.00	25	0.60	0.50	45	*0.85	*0.00
6	0.55	0.67	26	0.70	0.33	46	0.50	0.67
7	0.50	0.83	27	*0.75	*0.00	47	0.65	1.00
8	0.55	0.83	28	0.70	0.33	48	0.30	0.33
9	0.55	0.83	29	0.53	0.33	49	0.70	0.67
10	0.55	0.83	30	0.45	0.33	50	0.55	0.83
11	0.50	1.00	31	0.30	0.67	51	0.30	0.83
12	0.35	0.50	32	*0.85	*0.00	52	0.40	0.67

13	0.60	0.50	33	0.60	0.67	53	0.70	0.33
14	0.35	0.50	34	0.70	1.00	54	0.65	0.33
15	0.55	0.67	35	0.70	0.67	55	0.45	0.83
16	0.60	0.67	36	0.55	0.83	56	0.30	0.67
17	0.70	0.33	37	0.60	0.67	57	*0.65	*0.00
18	0.55	1.00	38	0.55	1.00	58	*0.87	0.00
19	0.65	*0.00	39	0.55	0.83	59	0.55	0.67
20	0.65	*0.00	40	0.70	0.83	60	*0.73	*0.16

(*) Delete.

It is clear from Table (3) that a number of (10) items that did not meet the conditions of the difficulty coefficient and the coefficient of discrimination were excluded, and thus the number of test items became (50) items in which the difficulty coefficient ranged between (0.30, 0.80), and the coefficient of discrimination between (0.40, 1.00), and accordingly, the test can be used as a tool to measure cognitive achievement.

8-Final image of the cognitive test: Annex (5)

After presenting the vocabulary of the test in its initial form to the experts and finding the coefficients of difficulty and discrimination according to the opinions of the experts, (10) phrases were deleted from a total of (60) phrases, and the test in its final form included (50) items.

9-Determine the test time:

After presenting the test in its final form to an exploratory sample of (10) students for the purpose of determining the appropriate time to answer the test in light of the results of the application to the judges of the following equation:

$$\text{Test time} = \frac{(\text{another laboratory that took time} + \text{first laboratory that took time})}{2}$$

Thus, it was possible to determine the total time of the test which is (60) minutes.

Scientific transactions of cognitive testing:

1- Authenticity of the content (arbitrators):

To reach the sincerity of the content (arbitrators), the researcher presented the cognitive achievement test to a number (15) of experts in the field of basketball, annex (1), in order to express an opinion on the vocabulary of the cognitive test and ensure scientific and linguistic accuracy, as well as the appropriateness of the "vocabulary" for the level of students under research and its proportion with the basic axes of the test and then its validity for application Annex (3), and the percentage of agreement of the opinion of the experts on the sincerity of the test for what was developed for it reached (80%), and thus the test became In its final form, which consists of (50 items) with 28 words true or false, 22 words optional from multiple.

2- Sincerity of differentiation:

The validity of differentiation for the cognitive tests under research was calculated by calculating the value of the averages of the differences between the two distinct groups from within the research community and outside the research sample and non-distinguished, and the number of each group (10) students, and Table (4) shows that.

Table (4)
Significance of the differences between the averages of the scores of the two distinct and non-distinctive groups in the cognitive test of the sample under study

(n = 20)

Variables	Featured Group		Unfeatured Group		Calculated value of T	Significance
	Average	Deviation	Average	Deviation		
Cognitive test	55,80	5,61	43,40	5,76	4,88	□

Tabular value of T at 0.05=2. 10.

It is clear from the results of Table (4) that there are statistically significant differences between the two distinct and non-distinctive groups in the skill tests and cognitive achievement under research in favor of the distinguished group, as the calculated value of "T" amounted to (4.88), which is greater than its tabular value at the level of (0.05), which indicates the sincerity of the tests, and that it is valid for what it was set for.

3- Calculation of stability:

To find the stability coefficient, the researcher used the method of application and re-application on (10) students from the research community and from outside the original research sample, and the time period between the two applications was (15) days and table (5) shows that.

Table (5)
Correlation coefficient between application and re-application in the cognitive achievement test under research (n = 10)

Variables	Featured Group		Unfeatured Group		Calculated value of T	Significance
	Average	Deviation	Average	Deviation		
Cognitive test	55,80	5,61	53,40	6,00	0,88	□

The tabular value of "R" is at the level of $0.05 = 0.63$.

It is clear from Table (5) that there is a statistically significant correlation coefficient between application and re-application in the skill tests of the sample, which indicates the stability of cognitive achievement, as the value of the calculated correlation coefficient "R" was (0088), which is greater than the tabular value of "T" at the level of (0.05).

Educational units using the round house shape strategy:

The researcher reviewed some references and studies to identify the steps of designing educational units using the circular house strategy, and the researcher took the following steps:

1- Objective of the units:

- **The general objective of the units:**

The student should acquire information and knowledge related to the skills under consideration and the possibility of contributing to their teaching using the circular house shape strategy.

- **Cognitive objectives:**

1. The student should modify the technical aspects of the skills under study.
2. The student should use the circular house shape strategy in learning the skills under research.
3. The student should be able to identify strengths and weaknesses when performing the skills under consideration in basketball.

4. The student should analyze the correct sequence of teaching the skills under consideration.
5. To develop self-confidence in the student.

2- The researcher took into account the following principles for designing educational units using the circular house shape strategy:

1. The educational units must achieve the general objective for which they are set.
2. To help educational units to raise the physical and skill efficiency of students.
3. Self-learning educational units should take into account the students and involve them in all stages of learning.
4. The educational units should take into account the integration of modern methods in education and accustom students to their use.
5. The educational units should take into account individual differences and raise their motivation to learn.
6. The logical sequence of the contents of the educational units should be commensurate with their objectives.
7. The educational units should provide the mechanism of teamwork simultaneously and competitively among students.
8. Taking into account the provision of the appropriate place, capabilities and security and safety factors for the implementation of educational units.
9. The educational units should be characterized by integration and diversity to satisfy the students' kinetic and cognitive desires.
10. The educational units should be characterized by pushing students to research and exploration within the class.
11. Matching the content of the educational units to the level and abilities of the sample members.
12. Flexibility of educational units and their acceptance of practical application.
13. Provide an interesting environment for teaching and learning on the part of students that leads them to perform what they learn well during the application of educational units.
14. The information contained in the educational units should be presented in an integrated, coherent and effective framework that uses all students' senses.

3- Content of educational units:

The researcher has reviewed the scientific references and studies related to the game of basketball, in order to identify:

- Technical and educational steps and applied exercises for basic skills in basketball are under research.
- Common mistakes and how to correct them.
- Formulate content with meaningful words that describe exactly what it means from the content to ensure that it is easy to interpret by any reader who uses this content in teaching.

The researcher took into account the following principles when developing the educational and applied steps for the content of educational units:

- The educational and applied steps should be appropriate to the level and capabilities of the research sample.
- Providing security and safety factors during the process of executing the quota.

The formations and formations used to learn the basic skills under research should vary, as well as the element of enthusiasm and suspense.

- The educational and applied steps should be in line with the strategy of the shape of the round house.
- That all students participate in the implementation of educational and applied steps and that the teacher supervises the implementation with intervention and correction of errors in case of occurrence.

The researcher also used some scientific references and reference studies that dealt with the strategy of the shape of the round house in order to determine the steps of the strategy and identify the principles contained in each step and how to implement it.

The following is taken into account when applying the circular house shape strategy:

There is no single perfect way to apply a lesson using the shape of a round house, but we can suggest the following steps:

1. The teacher presents the lesson in one of the common teaching methods such as practical presentation, discussion, investigation, or direct explanation.
2. The teacher forms cooperative learning groups if he wants to, and they are heterogeneous or homogeneous according to the teacher's point of view and the goals she seeks to achieve.

3. The teacher together with the pupils identifies the main idea or ideas being explored and designs the figure about them.
4. The students write the title of the figure (a formulation of the main concept using the linking words from or in" and "wow).
5. The students write the objectives of designing the shape of the round house at the bottom of the paper on which the shape will be drawn or in an external paper, previously distributed to them by the teacher.
6. Pupils break down information relevant to the concept into seven main parts or less or more by two.
7. The students write the information for each of the sectors that have been identified using simple words, drawings and models that are easy to disguise and recall, starting from the sector closest to position (12) per hour, and then moving to other sectors in the same clockwise direction.
8. Each group shows the shape they have designed to other class members with comments from the teacher and colleagues.
9. The teacher may ask the pupil to publish the shape they have designed in a newspaper or school magazine or to make a poster of the shape to be hung in
10. a corner of the class. They may also be asked to compose a story about the information contained in the figure.

Poll Studies:

A- Preliminary Exploratory Study:

The researcher conducted the first exploratory study by implementing the cognitive tests used in the program, which was developed using the circular house shape strategy, by selecting (20) students from the same community and outside the basic sample at Umayya Bint Qais Intermediate School for Girls, who were selected deliberately in order to:

- Ensure the validity and adequacy of the tools and devices used in the tests.
- Know how long it takes for each individual test and the tests as a whole.
- Accuracy of organization and workflow of tests. - Identify issues that arise when you apply tests.

Conducting scientific transactions for tests (under research). Based on the results of the exploratory study, the researcher concluded the following:

- The validity and adequacy of the tools and devices used in the tests.
- The validity and reliability of the tests used in research.

B- Second survey:

The researcher conducted the second survey to apply an educational module to the survey sample from the same research sample and outside the core sample to conduct the second survey, from 14/9/2021 to 16/9/2021. With the aim of:

- Find out how appropriate the contents of the unit are for the schoolgirls (search sample).
- Accuracy of measurement organization and workflow.
- Find out what difficulties the researcher is experiencing during the application and try to overcome them.
- Provision of security and safety factors during the Unit's application.

Based on the findings of the survey, the researcher found that:

- The suitability of the educational unit for the research objective and the sample level (under consideration) has been ascertained.
- Validity and adequacy of tools and devices used in tests.

C- Tribal measurement:

The researcher performed tribal measurements in selected research variables on the experimental group from 4/9/2021 to 13/9/2021.

D- Basic experience:

The proposed educational units were implemented using the Circular House Shape Strategy (12-week pilot group) from 15/9/2021 to 8/12/2021), and the quota time (40 minutes).

E- Dimensional measurements:

The dimensional measurements of the experimental research group in cognitive variables took place from 11/12/2021 to 14/12/2021 m, taking into account the conditions and conditions followed in tribal measurements.

Fifth: Statistical methods used:

- Arithmetic average. □ Standard deviation. □ Torsion coefficient.
- Flatness coefficient. □ Percentage improvement □ Binding coefficient.
- The factor of ease, difficulty and discrimination.
- The researcher used the indicator tables (t-test) and the correlation coefficient at the level of 0.05.

Presentation and discussion of research results:

There are statistically significant differences between the averages of tribal and post measurement scores in the level of cognitive attainment of middle school pupils in favor of dimensional measurement and a table (6) showing this.

Table (6)

**Indication of differences between the averages of the two measurements
Tribal and postgraduate levels of cognitive attainment
of the sample in question**

(n = 30)

Variables	Tribal measurement		Telemetry		Percentage of improvement	Calculated value of T	Significance
	Average	Deviation	Average	Deviation			
Cognitive test	46,27	5,39	63,00	4,38	36,17	11,96	□

The tabular "t" value is at $0,05 = 2,05$.

The results of table (6) show statistically significant differences between the averages of tribal and postgraduate measurements in the level of cognitive attainment under consideration in favour of the average dimensional measurement where the calculated "V" value was between (11,96) and an improvement of (36,17%), a statistical function.

It is clear from table (6) that there are statistically significant differences between the averages of tribal and post measurement scores in the level of cognitive attainment under consideration in favour of the average

dimensional measurement. " The researcher attributes this progress to the use of the circular house form strategy, which helped to stimulate the pupils' interest and urge them to participate positively in all stages of teaching and work to focus and attend at all stages of the study, where the pupils at the initial stage identified the main subject and wrote it in the central department And then the information is divided into thoughts and expressions of every idea with a symbol or picture in the second phase and summarizes all the above in a paragraph arranged from the creation of schoolgirls and presentation to their colleagues that would have enshrined information in the minds of schoolgirls to become a step or a rule through which they are linked to other steps and that is what the strategy seeks in particular or construction in general.

This is illustrated by Abdul Rahman Mohammed al-Saadani and M. AlMaliji's praise (2009) that constructiveness involves a reception process involving the rebuilding of the learner with new meanings within the context of his previous knowledge and experience and the learning environment, where both real-life experiences and previous information represent the environment (learning climate). (29: 110)

In addition, the strategy motivates schoolgirls to focus on all technical aspects whether in the performance of a person for themselves or in monitoring the performance of the group as a leader and observer of the group, thereby increasing the individual's ability to distinguish and analyze performance and the ability to detect errors contained in the performance and work to find solutions to it and working with a team or group of colleagues removes the fear barrier and dominates the role of positive competition in the design and elaborate implementation of the circular format.

This is what Haya bint Mohammed Al-Mazru (2005) points out that the Circular House strategy helps to provide a thought-provoking learning environment, helps the learner to be positive in gathering, organizing, following up and evaluating information during the learning process, and may also help to increase the learner's ability to think better and develop positive trends towards materials. (61:20)

The shape of the circular house also made the teaching process clear and orderly. It helped to involve pupils in the study planning process in imagining, evoking and incorporating the technical and educational aspects of skill clearly, structured, sequenced and supported by images and illustrations. This led to the clarity of the cognitive model of skill to be learned and improved for pupils throughout the course as well as when designing the

circular shape again at the end of the lesson. (skill to be learned) into a structured and segmented circular form in the form of sectors containing important benchmarks for easy-to-remember and retrieve skill.

This result was agreed with the study "Tafa Druze Al-Fra" (2019), "Ilham Muhammad Abdul Hamid Shehata" (2018), "Nasser Ahmed Anis" (2018), "Fathiya bint Ahmed Al-Ruwahiya" (2019), which showed the superiority of the pilot group studied using the circular house strategy and the positive impact of the use of the circular house strategy

Research conclusions and recommendations:

Research conclusions:

In the light of the research objective and the scientific approach used, its procedures, various research areas, and within the scope of the research sample, statistical analysis and discussion of the research results, the researcher was able to reach the following conclusions:

1. The circular house strategy contributes to an improvement in the level of cognitive attainment of pilot group members.
2. The Circular House strategy has contributed to increasing the motivation of schoolgirls to participate positively in the educational process in order to improve the level of basic skills in basketball for members of the experimental group.
3. The circular house strategy is effective in stimulating and stimulating activism and vitality in learners and increasing their self-confidence.

Research recommendations:

In the light of the researcher's study, findings and conclusions, the researcher makes the following recommendations:

1. Put the proposed teaching units using the circular house shape strategy into practice on the specialization of teaching basketball for between its effectiveness at the level of cognitive attainment.
2. Interest in activating constructive theory through the use of teaching methods based on this method.
3. The strategy of the circular house form should be used in teaching for all educational stages from basic to higher education.
4. Training the faculty's field training students in the use of modern teaching strategies as a circular house form strategy through teaching methods courses offered to them.

5. Take advantage of the current study to implement activities and training in a manner similar to those implemented in the Strategy.

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