Thi Qar University Journal of Physical Education Vol 2 Issue 3 P1

مجلة جامعة ذي قار لعلوم التربية البدنية

مجلة علمية محكمة تصدرها كلية التربية البدنية وعلوم الرياضة

The effect of Fryer's educational model of intellectual construction on learning some Basic offensive skills in futsal for students

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Article history:
Accepted: 21/ 4/ 2025
Published online: 20/6/ 2025

Keywords:
Fryer's educational model,
intellectual construction,
learning,
futsal.

ABSTRACT

The importance of this research lies in improving students' learning of basic offensive skills in futsal by developing the intellectual aspect, which relies on the teaching method used, namely the Frayer Model of correct learning and building the learner's mind through practice and performance, focusing on correct and purposeful movements and mastering them. The research problem was: The level of learning of basic offensive skills in futsal does not rise to the correct level, and the weakness is evident in the increased difficulty of performance in conditions similar to those of a match. Yes, the student performs the skills, but when performing them in the presence of a competitor or while playing, we find a clear weakness in performance. Therefore, it is necessary to provide instruction that enhances the student's intellectual aspect and enhances thinking during performance. The main objectives of the research were: To identify the effect of the Frayer Model of Intellectual Construction on the learning of some basic offensive skills in futsal for students. The experimental method was used. The most important conclusions reached were: The Frayer Educational Model for Intellectual Construction achieved the educational objectives by raising the level of learning some basic offensive skills in futsal for students. It was recommended that the Frayer Educational Model for Intellectual Construction be adopted because it achieved the educational objectives by raising the level of learning some basic offensive skills in futsal for students.

1- Definition of the research:

1.1 Research Introduction and Importance:

Societies promote the advancement of their scientists who seek to build an educated generation and thinker capable of creativity, industry, trade and achievement of sports achievements and this depends on what they provide of science and ideas through methods and educational methods that enable him to build that generation in different age stages.

In the sports field, the process of building an athletic and educated generation capable of skill performance requires building the intellectual side that helps to understand and master skills according to models, opinions and ideas of scientists who have already worked in building this aspect, including the Fryer model that you see (PAtma Abu Ashour ، 2019) has allowed Model Farrer to the student to entertainas The behavior of the discovered scientist in research and reaching results, which made him a researcher and not just a recipient of information " (Fatima ،2019: 411(.

While he believes (Ramadan Without Mohammed, 2010) "The Fryer model provides educational experiences that increase the student's scientific thinking by presenting the scientific material in an exciting and unconventional way " (Ramadan , 2010, 84).

From this, we infer that this model helps the learner to practice and perform skills and build the right idea in its performance in various sports, including futsal, which is one of the difficult sports to practice due to the small field and the large number of players, which requires them to master basic skills, including offensive, ball control and achieving the best performance.

Hence the importance of research in raising the level of students' learning of basic offensive skills in futsal by building the intellectual side, which depends on the method of education used, which is the Fryer model for correct education and building the learner's thought after practice and performance and focusing on the correct and purposeful movements and mastery.

1-2 Research problem:

Basic offensive skills in futsal are one of the most difficult skills, which need an advanced educational level due to ball control, rapid movement, creating voids and other movements within a small area of the field, and for this it requires teaching them with a correct level of thinking that helps performance and application in the most difficult conditions.

Through the researcher's experience in motor learning and futsal and they found that the level of learning basic offensive skills in futsal does not rise to the correct level and weakness is clear in increasing the difficulty of performance in conditions similar to the conditions of the match, yes the student performs the skills, but their performance in the presence of a competitor or play we find the clear weakness in performance and for this it is necessary to education that enhances the intellectual side of him and raises thinking during performance and in the most difficult circumstances, and for this we find that the Fryer model One of the

appropriate educational models for education and applied in some mathematical research helped to speed up learning.

1.3 Research Objectives:

1- Identify the impact of Fryer's educational model for intellectual construction in learning some basic offensive skills in futsal for students.

2- Identifying the differences between the results of the pre- and post-tests and for the control and experimental groups in learning some basic offensive skills in futsal for students.

3- Identifying the differences in the results of the post-tests between the control and experimental groups in learning some basic offensive skills in futsal for students.

1-4 Research Hypotheses:

1- The existence of a positive impact of Fryer's educational model for intellectual construction in learning some basic offensive skills in futsal for students.

2- There are significant differences between the results of the pre- and post-tests and in favor of the post-tests for the control and experimental groups in learning some basic offensive skills in futsal for students.

3- There are significant differences in the results of the post-tests between the control and experimental groups and in favor of the experimental group in learning some basic offensive skills in futsal for students.

1-5 Research Areas:

1-5-1 human field: students of the fourth grade of middle school Shams known for outstanding in the district of Balad Rose in the province of Diyala.

1-5-2 Spatial area: the external courtyards in Shams Al-Ma'araf High School for outstanding students in the district of Balad Rose in Diyala province.

1.5.3 Temporal field : the period from 13/1/2025 to 18/3/2025 .

2- Research methodology and field procedures:

2-1 Research methodology: The researcher used the experimental method of importance in addressing the research problem, especially the method of two equal groups with pre-post testing.

2.2 Research community and sample:

The research community was determined by the fourth grade students at Shams Al-Ma'raf High School for outstanding students in Balad Rose district in Diyala Governorate , who numbered (90) students and were selected in a deliberate manner.

The research sample was selected their number (20) request They constitute a ratio of (22.22%) of the indigenous community, which in turn was divided into two groups (control and experimental) randomly so that each group (10) Players The research sample was homogeneous within each group and equivalence as in Table (1).

Table (1)

Shows the homogeneity and equivalence of the control and experimental groups in the research variables

Significance level	Calculated T value	Experimental Group			Control group			Tests and measurements used
		Coefficient of variation	on	Going to	Coefficient of variation	on	Going to	
Immoral	0.558	1.193	1.562	130.84	0.945	1.234	130.47	Length/cm
Immoral	0.212	2.225	0.969	43.543	1.999	0.869	43.451	Weight/kg
Immoral	0.357	4.222	0.745	17.642	3.732	0.654	17.524	Rolling/sec
Immoral	0.172	10.156	0.895	8.812	8.519	0.745	8.745	Scoring / Score
Immoral	0.434	15.526	0.674	4.341	13.336	0.562	4.214	Handling/Grade

Tabular value of (T) at degree of freedom (18) and level (0.05) = 1.74

2.3 Means of collecting information:

2.3.1 Means of data collection:

-Arab and foreign sources.

-Scientific observation.

3.3.2 Devices and tools used:

- Stopwatch.
- Futsal field.
- Futsal footballs.
- Medical scale.
- Tape measure length 2 meters.

-Duct.

- Whistle.

Sign number 4.

2.4 Field research procedures

2.4.1 Determine the variables of the research:

Due to the importance of the research problem and the need to address the most important basic offensive skills in futsal, the researchers, according to their experience, identified the research variables, namely:

1- Football scoring.

2- Rolling with football.

3- Football handling.

2.4.2 Tests used:

2.4.2.1 Ball Slalom Running Test (Firat, Haval, 2011: 215):

Purpose of the test: Measure the tester's ability to control the ball while running between signs.

Tools: futsal, 10 signs, stopwatch, pitch where (10) signs are placed in a straight line, the distance between one sign and another (1.5 meters) and the distance between the start and the first sign (2 meters).

Performance Description: The tester stands with the ball on the starting line, and when the start signal is given, the tester runs between the pillars "zigzag" until it reaches the last sign that rotates around it and returns to the starting line in the same way, the player has the right to use both feet.

Performance Conditions:

* The laboratory can start by passing the first sign from the right or left.
*The player's movement must not be interrupted during the test.
*Try again in case of a sign.

How to register:

* The time is calculated to the nearest second from the moment he is given the start signal until he returns to the starting line again.

2.4.2.2 Scoring test on the target divided by degrees from a distance (10 meters) (Wisam, 2007: 83):

Test name: Scoring test on the target divided by degrees from a distance (10 meters).

Objective of the test: Measuring scoring accuracy.

Tools used: (3) futsal ball, goal divided by ropes on (5) sections, whistle, sign, registration form.

Performance method: The tester stands at a distance of (10) meters from the target and when the signal is given, it scores.

Registration: **The** laboratory is given (3) attempts, as the grades are calculated according to the location.

2.4.2.3 Handling test (Qusay, 2008: 58):

Test name: Handling towards a small target (10 meters) away.

Objective of the test: Measurement of handling accuracy.

Tools: 5 footballs, a small goal of 60×60 cm, tape measure, adhesive.

Test procedure: draws the starting line with a length of (1 meter) and at a distance of (10 meters) from the small target and placed the five balls on the starting line and when hearing the start signal, the laboratory scores these balls towards the small target by taking the right place at the starting line.

Registration: The grade is calculated by the total scores obtained by the laboratory from the five ball handlers as follows:

1- (2 degrees) for each correct attempt to enter the small target.
2- (1 degree) if the ball touches the post or crossbar and does not enter the goal.
3-(Zero) in case the ball goes out of the small goal.
4- The degree limits are (zero - 10).

24.3 Exploratory experiment:

The researchers conducted the exploratory experiment on 13/1/2025 on Applied sample by applying the educational exercises of Skinner's theory In order to regulate the load of the exercises used and their application and to know the

extent of their difficulty in the sample and the required repetitions and the time it takes to apply them also Knowing the level of players for the purpose of unifying them in applying exercises at the same level.

2.5 Field experience:

2.5.1 Pre-tests: The pre-tests were conducted on 19/1/2025

2.5.2 Application of the Fryer model:

The researcher prepared exercises Educational For basic skills Offensive futsal And program them within educational units and according to Fryer's educational model, which was interested in building thought and enhancing the practical side in the application of the most difficult skills, and the model consists of From four parts, namely the definition of the concept, the advantages of the concept, Examples denoting the concept, Examples Non-functional concept. In light of this The program has been implemented During the educational units of the coach's curriculum during the teaching and development of offensive skills in football And for eight weeks within. The application of the program started on 20/1/2025 and its application ended on 17/3/2025.

3.5.3 Post-tests: The post-tests were conducted on 18/3/2025.

3.6 Statistical methods: using the SPSS system for statistical treatments and to find:

1-Arithmetic mean
2. Standard deviation
3. Coefficient of variation
4. Test (T) for correlated samples
5. Test (T) for independent samples
6. Percentage.

3- Presentation, analysis and discussion of results:

Table (2)

Shows the values of (T) before and after the control group in the offensive skill tests

Used futsal

Significance level	Calculated T value	Standard error	Post		Tribal		Skill tests
			on	Going to	on	Going to	
Moral	3.221	0.745	0.864	15.124	0.654	17.524	Rolling/sec
Moral	2.559	0.667	0.745	10.452	0.745	8.745	Scoring / Score

Moral	2.846	0.671	0.636	6.124	0.562	4.214	Handling/Grade

Tabular value of (T) at degree of freedom (9) and below (0.05) = 1.833

Table (3)

Shows the values of (T) before and after the experimental group in the offensive skill tests

Used futsal

Significance level	Calculated T value	Standard error	Post		Tribal		Skill tests
			on	Going to	on	Going to	
Moral	3.324	1.332	0.896	13.214	0.745	17.642	Rolling/sec
Moral	2.965	1.214	0.764	12.412	0.895	8.812	Scoring / Score
Moral	3.491	1.117	0.669	8.241	0.674	4.341	Handling/Grade

Tabular value of (T) at degree of freedom (9) and below (0.05) = 1.833

Table (4)

Shows the dimensional values of (T) between the control and experimental groups in skill tests

Offensive futsal used

Significance level	Calculated T value	Experimental Group		Control group		Skill tests
		on	Going to	on	Going to	
Moral	4.613	0.896	13.214	0.864	15.124	Rolling/sec
Moral	5.521	0.764	12.412	0.745	10.452	Scoring / Score
Moral	6.895	0.669	8.241	0.636	6.124	Handling/Grade

Tabular value of (T) at (18) and below (0.05) = 1.74

Through the observation of tables (2) and (3) show that there are significant differences between the results of the pre- and post-tests and for the control and experimental groups and in favor of the post-tests and this indicates that the two groups have learned basic offensive skills in futsal and this is normal using exercises and education gradually and following the appropriate educational method, which gives an indication of the success of learning and this is confirmed by (Zahir Hashem Ismail, 2002) in the success of this educational process "It is natural that there should be learning and improvement as long as the teacher follows the basic and correct steps of learning, teaching, correct performance, and focus on attempts and repetition until the consolidation and stability of performance" (Zahir, 2002: 102).

While Saad Mohsen (1996) believes that " the use of the regular educational program leads to help to learn and achieve achievement, provided that it is based on scientific foundations through the organization and programming of the education process and the use of appropriate and graded methods of difficulty and observation of individual differences as well as the use of influential teaching aids" (Saad, 1996: 98).

By observing Table (4), we found that there is learning and improvement of the basic offensive skills of futsal better for the experimental group as a result of the use and application of the conditions of the Fryer model and the improvement of the intellectual aspect, and for this (Omar Nouri Abbas, 2020) believes that "the Fryer model is one of the basic behaviors that are based under the influence of different educational roof that lead to learners obtaining and providing them with the best skills, as the Fryer model that It depends on continuous repetition commensurate with physical and skill abilities, noting individual differences in learning, that following educational methods and methods in an organized scientific manner works to involve the learner and highlight his role to implement the requirements of the game, as learning the skill and the ability to perform it is one of the basic conditions for mastering it" (Omar, 2020: 214).

The steps of the Fryer model are also important and essential in learning and teaching, as he sees (Chalabi, 2016) "It is a model that contains many learning-educational procedures through several stages: teaching the concept, measuring the extent of its acquisition, and focusing on determining the course of learning and teaching processes for scientific concepts" (Chalabi, 2016: 446).

The researcher was also interested in the qualitative and exciting educational exercises to raise the level of thinking and activate his senses in learning, and for this he believes (Farid Abu Zeina 2003) "The diversity in educational methods is necessary to suit the learning methods preferred by the student and occupy the largest possible number of different senses they have" (Fareed, 2003: 132).

(Alaa Taha Ahmed Ibrahim 2022) confirms that "the education process is affected by the methods and methods of learning followed by the teacher, as new educational methods and strategies have emerged that help transfer the center of activity from the teacher to the learner, the method that depends on the basis of experimentation and application moves faster and easier than the one in which the learner is taught independent sets of knowledge that he does not know the benefits of learning" (Alaa, 2022: 28).

5. Conclusions and recommendations:

5.1 Conclusions:

1- Fryer's educational model for intellectual construction achieved educational goals by raising the level of learning some basic offensive skills in futsal for students.

2- Controllingthe basic behaviors that are based under the influence of different educational roof that lead to learners obtaining and providing them with the best skills, and this depends on the correct educational model such as Fryer.

5.2 Recommendations:

1- Adopting the Fryer educational model for intellectual construction because it achieved the educational goals by raising the level of learning some basic offensive skills in futsal for students.

2- The need to controlthe basic behaviors that are based under the influence of different educational roof that lead to learners obtaining and providing them with the best skills, and this depends on the correct educational model such as Fryer.

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Appendix (1)
Form (from educational units)
Week: First Scorer of the educational unit: learning basic skills
Offensive futsal
Module: 1

Observations	Duplicate	Details & Exercises	Time	Unit Sections
Conditions of the Fryer model for education and building the right thinking	84×2 4×2 4×2 5×2	- Feeling the ball and making a straight rolling and then between the signs and after rolling and dribbling in front of a defender. - Handling with the colleague back and forth is handling in the presence of a defender. -Scoring on areas specified by the target. -Roll and then handle with the colleague and receive and score.	30 minutes	Main section: 1. Educational 2-Applied