

Research Article

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The Effect of Using the Flipped Classroom Strategy on Learning Some Football Skills Among Students

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Abstract

Background/purpose: The present study aims to examine the impact of the flipped classroom strategy on the acquisition of selected football skills among seventh-grade students. Specifically, the skills investigated were passing with the inside of the foot, zigzag dribbling, and shooting with the inside front of the foot.

Methods: The study employed an experimental design with two groups, comprising a total sample of 36 students who were randomly assigned to either an experimental group, which received instruction through the flipped classroom model, or a control group, which was taught using traditional methods based on explanation and demonstration. Homogeneity and equivalence tests confirmed the comparability of both groups prior to implementation.

Results: The results demonstrated a statistically significant improvement in favor of the experimental group, indicating that the flipped classroom strategy was more effective than conventional teaching at enhancing performance in the targeted skills. While traditional instruction contributed positively to learning outcomes, the flipped approach yielded greater efficiency and engagement.

Conclusion: These findings emphasize the pedagogical value of integrating flipped learning into physical education programs, with notable implications for improving instructional quality, fostering active participation, and advancing students' technical and cognitive development in sports education.



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1. Introduction

In the twenty-one century, world has a big civilizational step, that's why it carries inside scientific competitiveness for the improving of human's life and simplified their ways of life, human being contributed in a very huge progress scientific and technology breakthrough toward the door of learning and teaching operations, which considered as a bridge to raise the level and value of the human, so, planning to develop teaching became first kiblah which through it progress and keeping up with Prosperous countries happened, so, teaching foundations which are interested in raising individual level and society enhancing as all in human system and national building through them it can achieve an intellectual basis for goals it looks for.

Teaching that activate Eagerly and incentivize element for knowledge will make the teaching procedure more fun and dynamic, little number of classes by the traditional way, on the other side more informing and projects in which the student is the focus of the educational progress, not the teacher, technology development and the increasing of using tools, means and modern technologies in teaching was the main reason that make larger number of teachers like to fly creatively in teaching their children (Stryer & Jeremy, 2007). Teaching technology is an important tool for building a comprehensive teaching and learning operation and for implementing and refining it within the constraints of specific goals. This approach is grounded in exploration and investigation in teaching and learning, and in human connection, using human and inhuman resources to achieve more active learning, launched by providing learners with a wider field for noticing, discovery, thinking, understanding, innovation, and information refinement. (Zidan and Ramadan, 2006; Zaghloul et al, 2001).

Teaching technology depends on experimental research to consolidate cognitive structure, and to understand its benefits, it must be studied and considered a very important educational system (Al-Kholy & Al-Azab, 2009). E-Learning is a contemporary example of technology and modernity; previous studies on modernity showed its effectiveness in refining skills, knowledge, and different teaching approaches in students' minds and personalities. it's important to demand it and highlight it in curricula as an integrated educational system, and make it an important subject in improving students' social role and use it for active self-learning in order to be the main axis in education, considering it as a means and technology in building the educational system will lead it toward development and growth, which is the desired aim. E-Learning has two main stereotypes: first is depending on Internet (Synchronous and asynchronous E learning) and the other methodology (offline Education) for the student to interact with it in the individual and group learning forms which is beyond the traditional routine by moving to more activation and motivation in face of educational content, this procedure will improve and acceleration quality of learning and teaching as flipped classroom strategy (Stayer, 2008).

Flipped classroom strategy and blended learning strategy and knowledge study tours strategy in addition to E- Learning strategy are considered a part of the strategies which depends on developed technologies in activating E-Learning(Khalifa and Mutawe',2015) flipped learning is a strategy which went beyond usual traditional ways of teaching, it is an educational model which allows using modern technologies and internet in a way that allow the teacher to prepare lessons and teach them, it provides students with audio visual techniques and customized Electronic works, beside videos and written texts allow them to learn about the subjects and concepts outside the school, then predicts that direct active discussions between them will happened by a special electronic means of communication, after that the stage of meeting between student and teacher to create a discussion group about what had been seen.

On the web, in the field, or in the classroom, students complete homework individually and in groups. This will allow the teacher to go deeper with the active educational activities with students,

and this is the flipped classroom; what was allowed in the classroom starts to exist at home, and the opposite is true. (Khalifa, 2013). Flipped education is built on two stages: first, sending information to the student; second, the student using the information. On the other hand, classic learning basically focuses on transforming information into the student, and this allows room for completion of the second phase, which is brushing up on information through activities and homework that the teacher requests. However, the flipped learning merges the two ways in one bowl using the students time at home by bringing them by the internets before school classes. Students are coming in person to apply what was previously watched and acquired; this operation is considered a form of support for higher-level learning (Bram & Cynthia, 2013).

Flipped education strategy is an environment in which technology tools are used in order to move the classes outside the classroom with all what is requested by the teacher from the students of homework, by videos and designs prepared previously of the topic of the lesson sent by some of the social media platforms , students watch it by computer or mobile phones, that is before coming to class, because the class time will be for activating discussions and applying and corporation projects and trainings (Hassan, 2017), flipped classroom is considered a modern technological image about what contemporary technology hype reached, it's possible in learning some motor skills, that's because of its functional activation as an important and integrated educational system allow the students principle active learning positively in addition allow the learners to undergo educational programs built on specified previously goals, which demand variation, this guarantee to consider individual characters and levels, which means In practical and professional educational progressive, its important to stay away from the typical specific style of learning because it will not be compatible with all learners in the same way according to individual abilities differences, then They will be overwhelmed by stagnation and boredom. The flipped classroom offers a greater variety of methods and approaches by providing more educational situations for the largest number of learners (Omar & Abdulhakim, 2008).

Football game is one of the team popular game the sweeps the world, it's the most popular and exciting, it is important to mention that it's a game that targeting all the levels of society takes into account individual differences, which is the main The pretext that makes scientists and specialists of thinking and surveying to raise the level of the game and the players, by working to inter it among the playing yard and methods and strategies that are keeping up with modern development and new technologies (Majid, 2024). Football is characterized by variation of motor skills, in addition to Close coupling in skill performance, because of that a chance of progressing and learning of skills performances of how learners are having Mental and imaginative images of technical steps mechanism while movement applying, this make the learner has more opportunity to develop performance and take the right decisions, this procedure may add by touched services on applying skills Smoother and optimal, this What teachers and trainers must do and develop (AlWateefy and others, 2025; AL-sharman,2015), skills are the basic pillar of performance in football, The matches depend on the results, depending on the quality and ability of the players Proficiency in basic skills in the team work situations, the ability of applying playing plans is connected of the level of finding skills, distinguished player gets advantages and raises his team value (Shaalán, 2010).

1.1. Research problem

Connection techniques and information and knowledge increasing between schools and universities students are developed very fast, which causes the appearance of new systems in the scope of E-teaching and learning and internet (Al Sayyed and inas, 2014; Al- Rubaie, 2012), during the researchers work in teaching sector, Stereotype and stagnation in teaching methods, It also does not meet desires of learners and makes them unenthusiastic about the educational process, beside not considering the principle of individual differences, this image increased and consecrated by field experience in teaching practical courses such as field training, Which was sufficient to create an image

containing the teachers' lack of knowledge and familiarity with modern teaching methods in teaching physical education and their application within the classroom, also, researchers pay attention that traditional educational operation repeatedly stopped in Palestine because of many factors, this required researching to find extra Precautionary measures and B plans to guarantee education continuity, It is also important to follow the trends of technological development in moving towards hybrid and distance learning, because of this reasons, research problem was formed, Which prompted researchers to use flipped learning in teaching some of football skills to the seventh grade students, previous study (Abdel Moneim, 2024; Abdulrahim 2018; Hamad 2019; Abdullah,2023) to the flipped learning strategy efficiency in achieving different learning outcomes for all sport games skills.

1.2. Study Importance

This study is one of the first to address the flipped classroom strategy for learning specific football skill movements among seventh-grade students in Palestine, to assist educators in using modern teaching methods to improve efficiency and the quality of education and practice. And addresses one of the important areas of scientific study, esp. by using some of the modern methods of teaching football skills to students. This study assists teachers in addressing problems they face related to diversity and variation among students in their learning patterns, inclinations, and interests, and also prepares students during class. and go toward using new tools and technology in teaching sport skills in a way that enriches and take the educational process to achieve its goals, raising awareness about the importance of research concerned with using this method with all sports practiced by students in schools, an accurate element to the technical points of the skills which are taught. And trying to overcome the banking curricula in the Arab educational field through more effective methods that foster critical thinking and creativity, and to shift the teaching process toward the idea of learning.

1.3. Study hypotheses

1. There are statistically significant differences at the level of significance ($\alpha \leq 0.05$) between the averages of the pre- and post-measurements of some skill variables (passing with the sole of the foot, running zigzag with the ball, shooting with the inside front of the foot) among seventh-grade students in the experimental group

2. There are statistically significant differences at the level of significance ($\alpha \leq 0.05$) between the averages of the pre- and post-measurements of some skill variables (passing with the sole of the foot, running zigzag with the ball, shooting with the inside front of the foot) among seventh-grade students in the controlling group

3. There are statistically significant differences at the level of significance ($\alpha \leq 0.05$) between the averages of the pre- and post-measurements of some skill variables (passing with the sole of the foot, running zigzag with the ball, shooting with the inside front of the foot) among seventh-grade students in the experimental and control groups.

1.4. Study limits

- *Human limit*: The study was limited to seventh-grade students at Abu Falah Boys' Secondary School, affiliated with the Birzeit Directorate of Education.

- *Time limit*: this study was implemented in the second semester of the year 2024-2025

- *Spatial limit*: this study was implemented in Abu Falah secondary boys school-affiliated- Birzeit Directorate of Education.

1.5. Previous Studies

Wibowo et al (2024) conducted a study aimed to recognize the effect of the flipped classroom method on students participating in teaching basketball among PE program and health and entertainment on the university level, researchers used the experimental method on a sample of 62 registered in PE, divided into two groups, controlling group which depends on the traditional method, while experimental group demand the flipped classroom strategy for seven weeks, comprehensive questionnaire was used to measurement participating as a research tool, study results showed that level of student's participation in the interactive, behaviour and cognitive dimensions are very high In favour of the experimental group, which had an impact on increasing the student's participation in learning basketball using the flipped classroom strategy compared to the traditional method.

Zamzami (2023) conducted a study to examine the effect of using a flipped classroom supported by mobile learning technology on the performance of certain gymnastics skills among students in the Physical Education Department. on a sample of 36 students who have no previous knowledge of gymnastics skills, experimental method was used of designing of two groups (experimental and controlling) with three teaching units for each skill, during 12 weeks preceded by a week for pre-measurements and then post-measurements, results showed statistically significant differences between pre-measurements in favour for experimental group, results showed effectiveness of using flipped classroom with mobile learning technology in noticeable improvement in teaching gymnastic skills to the experimental group compared with controlling group that used the traditional method.

Karaman & Arsalan (2023). Study which aimed to identifying effectiveness of flipped classroom on students' knowledge, motivation, and development of their skills in physical education, researchers used experimental method on a sample of (62) students, controlling group consists of 30 students and 32 students for the experimental group, results showed Learning in the flipped classroom increased students' knowledge and motivation, and it also showed that the level of performance is an important factor in influencing the students' cognitive level. Increase their motivation to participate in the lesson.

Shaheen (2022) A study aimed to identify the effect of flipped learning using the Telegram application on learning some basic skills for handball beginners. The experimental method was used, and the study population was represented by handball beginners whose ages ranged from 12 to 15 years and numbered 56 beginners. The study sample was chosen intentionally and consisted of (40) beginners who were divided into two groups: an experimental group consisting of (15) beginners and a control group consisting of (15) beginners. The exploratory study sample was selected from the same original research community and from outside the basic study sample. It consists of (10) beginners, and (16) beginners were excluded due to their health conditions, their absence, and irregularity in the educational program. The most important conclusion was that the proposed program using the Telegram application has a positive impact on the learning of basic handball skills among beginners.

Abdel-Qawi & Mahmoud (2022) conducted a study to assess the effectiveness of flipped learning on learning outcomes for certain basketball skills. The study population was students of the second cycle of basic education at the school (Martyr Muhammad Jamal Salim, which is affiliated - the West Mansoura Educational Administration - Directorate of Education in Daqahlia, for the academic year (2020 / 2021) The sample was chosen intentionally from first-grade students, and the study sample was chosen randomly, their number is (40), first-year middle school students. Statistical treatments were used in the study using the program (SPSS version 20). Researchers used the experimental method. The results of the study indicated that the experimental group, which was taught using a flipped educational program delivered via smartphones, outperformed the control group, as it positively contributed to developing dribbling and shooting skills in basketball.

Ali (2020) conducted a study to identify the impact of the flipped classroom strategy on learning outcomes related to basic skills in PE lessons for students in the middle phase. The researcher used an experimental approach with a sample of 100 students; the results indicated the superiority of the experimental group, which was taught using flipped classrooms in the basic skills study.

Al Barlasi (2022) conducted a study to identify the impact of flipped learning on the skill and cognitive achievement levels of ballet beginners. The researcher used the experimental method for the study sample (40) female students from the second band at the Faculty of Physical Education, Mansoura University. The results of the study indicated the superiority of the experimental group over the control group, which was taught using the flipped learning method and the extent of its positive impact on skill and cognitive achievement and the level of basic skills in ballet (demie pli  , grand jete, simple bend, battement tendu simple, 5 45 battement jete, 5 90 grand battements, pas de chat, changement of pieds).

Lucena et al (2020). aimed to analyze the effectiveness of flipped learning compared to the traditional curriculum in learning and teaching physical education for the primary and secondary stages, where a descriptive and correlational experimental study design was used through a quantitative perspective on a sample of 119 students in educational centers. They were chosen intentionally, and the results were collected through a questionnaire. The results of the study showed that the experimental group achieved better outcomes on academic indicators, highlighting motivation, independence, and interaction among the parties in the educational process. It also recommended using the flipped classroom strategy across all educational levels, which improves independence in secondary education.

2. Literature Review

2.1. Study approach

Researchers used the experimental design on two groups. This is due to its suitability for the study's nature. The study population consists of the seventh grade in Abu Falah Secondary Boys School, affiliated with BirZeit Education Directorate (2024-2025). The number is 50 students, divided into two divisions. The study sample consisted of (36) seventh-grade students at Abu Falah Secondary Boys' School, affiliated with the Birzeit Directorate of Education in divisions (a and b). They were divided into two equal groups (18 students each), with the first group as the experimental group and the second as the control group. The sample was randomly selected from the study population, representing 72% of the population. A reconnaissance sample consisting of (10) students was taken. Table 1 presents the characteristics and homogeneity of the study sample by height, body mass, and age.

Table 1. Characteristics and homogeneity of the study sample according to the variables of height, body mass, and age (n = 36)

Variables	Unit	M	SD	(SW) Value	(Sig.)
height	Cm	159.83	7.10	0.974	0.557
body mass	KGM	57.36	8.17	0.961	0.228
Age	year	12.20	1.70	0.97	.4730

*($\alpha \leq 0.05$) Statistically significant differences at the significance level , Shabiro wink (SW)

The results of Table 1 indicate that the arithmetic mean. Standard deviation for the variables of height, body mass, and age for the members of the study sample as a whole were, respectively, (159.83 $\pm$ 7.10 cm, 57.36 $\pm$ 8.17 kg, 12.20 $\pm$ 1.70 years). The Shapiro-Wilk (SW) values were not

statistically significant at the significance level ($\alpha \leq 0.05$). This means that the sample study is homogeneous and subject to moderate normal distribution. Therefore, the study sample members were randomly distributed. It is subject to a moderate natural distribution. Therefore, the study sample members were distributed randomly and equally into two experimental and control groups, where group (A) represents the control group that underwent regular education and their number is (18). Section (B) represents the experimental group that underwent the educational program using the proposed flipped classroom, and their number is 18. Later, the parity between members of the control and experimental groups in the variables of height and body mass, and in the averages of the pre-measurement of the variables and skills under study, was confirmed using a two-independent-samples T-test (Independent T-test), as shown in Table 2.

Table 2. Pre-test Comparison of Experimental and Control Groups (n=36)

Variables	Experimental group		Control group		(T) Value	Sig.
	M	SD	M	SD		
Height CM	159	7.67	16.67	6.60	0.70-	0.489
Body Mass KGM	56.33	9.84	58.39	6.18	0.75-	0.458
Kicking a football to the goal (degree)	3.44	2.31	3.56	2.12	0.15-	0.881
Handling level (degree)	20.06	4.05	20.94	4.81	0.60-	0.553
Running with ball(second)	11.12	1.60	10.85	1.35	0.56	0.578
Handling toward a small target (degree)	2.39	1.29	2.17	1.38	0.50	0.621

It is clear from the results in Table 2 that there are no statistically significant differences at the significance level ($\alpha \leq 0.05$) between members of the experimental and control groups in the variables of height and body mass, and in the pre-measurement averages of the skill variables under study. These results confirm parity between the two groups before the implementation of the educational programs.

- Tools and equipment
- The researchers used a set of tools that are appropriate to the nature of the study, which are:
 - A rust meter device for measuring length in centimeters
 - A medical scale rated to measure height in centimeters.
 - A stopwatch to determine the time in some tests.
 - Footballs
 - Plastic funnels/plastic collars.
 - Video, photos, recordings, and educational smart devices
 - Providing walls suitable for passing and receiving
- Proposed educational units for applying flipped learning

The researchers designed the educational units using the flipped learning strategy for the experimental group, following the following steps:

1. Determine the skills to be learned: (running with the ball, shooting, and passing with the sole of the foot)
2. Analyze the content of these skills in order to know the aspects of learning present in each skill

3. The researchers prepared a complete concept for teaching using the proposed strategy according to the following steps:

Determine the general objective of the educational program: identifying the effect of using the flipped classroom in learning some football skills for seventh-grade students, and the following objectives emerge from it.

- A general cognitive goal, which is for students to acquire some information about the knowledge and concepts related to healthy technical steps and common mistakes in some football skills.
- A general skill goal, which is for students to acquire how to perform the technical form of some football skills
- Determine the program content:

Program content includes:

1. The form of technical performance of special football skills for the seventh grade under study.
2. Common mistakes that the player makes.

The researchers presented the above content as texts, pictures, and videos that illustrate the artistic performance of the related skills, along with audio-visual explanations.

- Data collection tools:

- A questionnaire for collecting information about students' specifications.
- A questionnaire to collect the results of skill tests.
- Instructional units for using the flipped classroom strategy.

- Study measurements and tests.
- Skills tests: (Kate', 2024).

1. First test: kicking the ball towards the goal.
2. The second test: handling towards a platform for (30) seconds.
3. The third test: running with the ball between five blocks.

4. Fourth test: Handling test towards a small target at a distance of 10 meters. Second: Validity and reliability of skill tests:

To ensure the validity and reliability of the skill tests, the test-retest method was used by applying it to a reconnaissance sample of (10) students from outside the original study sample, where the time period between the first and second applications of the tests was one week The Pearson correlation coefficient was used to indicate the relationship between the two applications, and to extract self-validity values by applying the square root equation for the correlation or reliability coefficient, as shown in Table 3.

Table 3. Self-validity and reliability coefficients for skill variables (n=10)

Skills variables	(R)	Self-validity
kicking the ball towards the goal(degree)	**0.91	0.953
Handling level (degree)	**0.87	0.932
Running with the ball (seconds)	**0.89	0.943
Handling test towards a small target(degree)	**0.90	0.948

*($\alpha \leq 0.05$) Statistically significant differences at the significance level

The results of Table 3 indicate that the reliability coefficient values for the skill variables ranged between 0.87 and 0.91, and their self-reliability values ranged between 0.932 and 0.953, and all of them were statistically significant at the significance level ($\alpha \leq 0.05$). These results confirm the validity and stability of the skill tests and their validity to achieve the purposes of the study. The researchers relied on the following methods and tools to collect information and data for this study: a stopwatch, a whistle, Cones in various shapes, types, and colors, footballs, measuring tape, ropes, and collars. The researchers used flipped learning to teach some football skills to seventh-grade students at Abu Falah Boys' Secondary School.

The researchers distributed the time period for the educational program under study according to the football educational unit in the school curriculum prescribed by the Ministry of Education in Palestine for the academic year (2024-2025). The program included the part related to learning basic skills in the course on the skills of (aiming at the target with the front foot - passing the ball with the sole - zigzagging running with the ball), the educational unit was one unit per week, and the unit time was (40) minutes over a period of two months, which is equivalent to (8) educational units with a total time of (320) minutes. By reviewing some scientific references in building program curricula using the flipped classroom strategy, the researchers distributed the time for each part of the seventh-grade class session as follows:

T Lesson Section	Time
(discussion)	minutes 4
Warming up	minutes 4
Exercises	minutes 3
Main part	minutes 25
Closing part	minutes 4
Total	Minutes 40

- Describe the structure of the educational program used for the flipped classroom:

Researchers reviewed scientific references and studies on the use of technology and the Internet in education. This is to determine the stages and foundations for preparing the class format, and to establish the mechanism for presenting lessons scientifically and educationally, based on the means and media that constitute this new educational strategy. Therefore, the researchers defined the design stages for educational content and video, which are as follows:

- First: The analysis stage:

Researchers analyzed the prescribed curriculum, which includes football skills content for seventh-grade students. The researchers also referred to educational studies that used educational computer programs and hybrid learning using the Internet, including (Abdo, 2012), (Moussa, 2013), (Ali, 2019), this is to strengthen and enhance the structure of educational content that includes various electronic media that help deliver and provide students with the greatest amount of feedback, including: (video excerpts and clips, moving and still images, and drawings), and thus the videos and images can clarify the general and behavioral objectives and technical points in a detailed manner, common mistakes and ways to avoid them for each skill under study football program.

- Second: Preparation stage:

At this stage, the researchers took preliminary steps to prepare and produce educational tools through the flipped learning method, which are as follows:

A. Educational materials and written texts: collected from specialized educational and scientific curricula and references, in addition to consulting the Internet.

B. Photos: Researchers sent pre-prepared photos showing the techniques and basics of football skills under study. These photos clarify common mistakes and how to avoid them.

C. Video footage: Footage was prepared from videotapes for teaching and explaining the technical performance of the skills learned in football under study.

- Third: Assembly stage:

The researchers created files that collected texts, images (both animated and static), and video clips related to the skills to be taught and recognized in the football under study. These forms were then processed to create an educational montage that complies with the conditions of flipped learning and is attractive and lively for learning.

- Fourth: The planning stage and introducing class activities through the "Learning Designer."

Researchers used "Learning Designer" (Knowledge Laboratory, University of London, Institute of Education, University of London, 2013-2025) to prepare the lessons for the flipped classroom. This is due to its advantage of focusing on the student and making him the focus of the teaching and learning process through the multiplicity of learning activities that the teacher can use in designing lessons, including learning through Watching, listening, production, application, and discussion), as the types of learning diversify, ways students process concepts and skills are increased, in addition to its ability to provide pie and bar graphs that explain the nature of the learning experience, time, presence and absence of the teacher, online or not, and the resources that must be attached accurately, in addition to the ease of modification, sharing, and using the tutorial explains the user in details and can be viewed through the following link: <https://www.ucl.ac.uk/learning-designer/viewer.php?uri=/personal/rmhamad/designs/fid/a0a38578eb3fe43767bf50a38f13e44cf5e75fe3dc80694822a5d5e997615e94&v=4.00>.

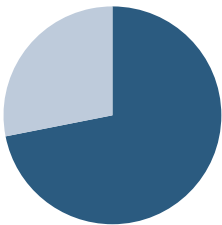
Representations of the learning experience



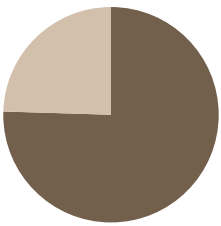
Learning through	minutes	%	
Acquisition (Read, Watch, Listen)	31	9	
Investigation	25	7	
Discussion	54	15	
Practice	173	48	
Collaboration	67	18	
Production	13	4	



	minutes	%	
	Whole class	206	57
	Group	114	31
	Individual	43	12



	minutes	%	
	Face to face (not online)	261	72
	Online	102	28



	minutes	%	
	Teacher present	274	75
	Teacher not present	89	25

User-Generated Charts

- Fifth: The stage of establishing the electronic communication platform:

Researchers designed a group on the Facebook platform and named it (seventh-grade football) so that the students would be prepared for the learning stage.

- Sixth: Transmission stage

The researchers sent video files and photos for each skill, based on the educational program's plan, which used the flipped classroom strategy to teach football skills to the seventh-grade students under study. Then, it was ensured that all students had delivered all the files, and they confirmed watching them according to the instructions.

- Seventh: The practical stage

- The skill of passing with the sole of the foot: In the lesson, students begin to perform the pass with the sole of the foot with movement and stability, based on the activities prepared in advance by the teacher and under the supervision of the teacher, focusing on slightly bending the knee of the focal foot and hitting the ball from its middle, and the direction of the instep of the focal foot when passing the ball.

- The skill of running zigzag with the ball: In the lesson, students begin to run with the ball between the blocks, using different sides of the feet under the supervision of the teacher, focusing on bending the torso slightly forward, raising the head, and controlling the ball.

- The skill of shooting with the front, inner side of the foot: In the class, the students begin with exercises prepared in advance by the teacher and under the teacher's supervision, where the teacher corrects the students' performance by focusing on the shooting foot during the swing and the direction of the ball of the pivot foot.

- Eighth: Evaluation and follow-up

- Students are evaluated based on their improved performance in each of the skills mentioned, with immediate and constructive feedback given to improve their level.
- Students are encouraged to interact in group discussions within the class and share their experiences of the challenges they faced while learning.

2.2. Study variables

Independent Variables: these variables represented the effect of the proposed educational program and the effect of the regular educational program. Dependent Variables: these variables represented the performance results obtained by the study sample members in the skill tests, which are: (kicking the ball towards the goal, handling towards a platform, running with the ball, handling towards a small goal).

2.3. Survey studies

Researchers tested two sessions of the proposed educational units on a pilot sample of (10) students from the study population and from outside the study sample, on 3/2/2025 - 3/7/2025, for the following objectives: (Students experiment with the flipped classroom strategy, Examine the suitability of the tools, devices and places used for implementation, Examining the suitability of the contents, activities and events of the educational program to the capabilities of the sample, Based on the results of the study, it is clear that devices and tools are sufficient to begin implementation, and that content is compatible with the capabilities of the sample).

Researchers conducted the pre-measurement on the experimental and control study groups in the period from 3/10/2025 to 3/11/2025. Researchers applied the basic experiment of the research to the two experimental groups using the education units under study, as well as the control group using the traditional method, in the period from 3/12/2025 to 5/12/2025. Researchers took into account some points during the implementation of the experiment, which are as follows: not deviating from the content of the educational program for the experimental group, following the use

of the traditional method (model and explanation) with the control group, teaching throughout the applied period of the experiment for the control and experimental study groups.

The researchers conducted the post-measurement on the experimental and control study groups after completing the full application of the basic experiment during the period 5/14/2025 - 5/16/2025, following the use of the traditional method (model and explanation) with the control group.

2.4. Statistical treatments

Researchers collected the results after completing the application, organizing and scheduling the tests, and then processing them statistically, to reach the results of the study and ensure the validity of its hypotheses, the statistical program (SPSS) was used by applying the following treatments: (Arithmetic averages and standard deviations, Shapiro Wilk test to ensure the homogeneity of the study sample members, person correlation coefficient to ensure stability of the physical and skill variables under study, T-test for two independent groups (Independent samples T-test) to ensure equality between members of the experimental and control groups in the variables of age, height, body mass, and the averages of the pre-measurement of the skill variables under study, and to compare the averages of the post-measurement between the experimental and control groups, Paired Samples T-test to determine the differences between the means of the pre- and post-measurements of the variables under study for both the experimental and control groups, and the percentage change in the mean of the post-measurement - the mean of the pre-measurement/pre-measurement*100).

3. Results and Discussion

First: Results related to the first hypothesis, which reads: (There are statistically significant differences at the level of significance ($\alpha \leq 0.05$) between the averages of the pre- and post-measurements for some skill variables (passing with the sole of the foot, running zigzag with the ball, shooting with the inside front of the foot) among seventh-grade students in the experimental group). To confirm the validity of this hypothesis, a paired samples T-test was used, and the results of Table 4 show this.

Table 4. Results of the paired T-test for the significance of the differences between the means of the pre-and post-measurements for some skill variables among students (n=18)

Skills variables	Pre measurement		Post measurement		T Value	Sig	%
	M	SD	M	SD			
Kicking the ball to the goal (degree)	3.44	2.31	7.06	1.95	14.76	*0.000	105.23
Handling in a flat direction for 30 s (degrees)	20.06	4.05	26.06	4.01	14.84	*0.000	29.91
Running with the ball (seconds)	11.12	1.60	9.31	1.48	14.93	*0.000	16.27-
Passing towards a small target (degrees	2.39	1.29	5.11	0.90	11.35	*0.000	113.80

*($\alpha \leq 0.05$) Statistically significant differences at the significance level)

The results of Table 4 indicate that there are statistically significant differences at the significance level ($\alpha \leq 0.05$) between the means of the pre- and post-measurements in all skill variables among seventh-grade students in the experimental group, in favor of the post-measurement, and therefore the hypothesis was accepted. In addition, there is a significant and noticeable effect of the proposed educational program in improving all the skill variables under study, change percentages were as follows: (kicking the ball towards the goal (105.23%) degrees, handling towards a platform for 30

seconds (29.91%) degrees, running with the ball (-16.27%) seconds, handling towards a small target (113.80%). The researchers explain the tangible improvement of the experimental group members to the effectiveness of the activities of the educational program using the flipped method, as it has a positive and qualitative impact by transferring the student from the dominance of the imperative method to more active and interactive learning, as it allows students to study, think, self-directed exploration, and solve problems, in addition to simplifying theoretical and skill knowledge smoothly through electronic media, In addition to the advantage of learning at a time appropriate to each student and at a pace that takes into account their abilities and comprehension, I also add that flipped learning is one of the methods that engages the greatest amount of the student's senses and even develops them. The student listens, watches, discusses, applies, and examines, and these features were sufficient to break the boredom and educational habit and introduce the student into a more practical atmosphere. In addition to satisfying students' desire for change and learning through methods that are compatible with modern developments, and using technology instead of freezing on desks and in front of blackboards. This result is consistent with the results of (Salouma, 2024) and (Al-Sayed & Ibrahim, 2024). Their results indicated that using the flipped method, which includes electronic and technological media, contributed to raising the students' level of knowledge and skills positively. Thus, the first hypothesis is validated, which states: "There are statistically significant differences at the significance level ($\alpha \leq 0.05$) between the averages of the pre- and post-measurements of some skill variables among seventh-grade students in the experimental group".

Second Results related to the second hypothesis, which reads: There are statistically significant differences at the level of significance ($\alpha \leq 0.05$) between the averages of the pre- and post-measurements for some skill variables (passing with the sole of the foot, running zigzag with the ball, shooting with the inside front of the foot) among seventh-grade students in the control group. To confirm the validity of this hypothesis, a paired samples t-test was used, and the results of Table 5 show this.

Table 5. Results of the paired t-test for the significance of the differences between the means of the pre- and post-measurements of some skill variables among members of the control group (n= 18)

Skills variables	Pre measurement		Post measurement		T Value	Sig	%
	M	SD	M	SD			
Kicking the ball to the goal (degree)	3.56	2.12	5	1.97	6.65	*0.000	40.44
Handling in a flat direction for 30 seconds (degrees)	20.94	4.81	22.33	4.37	4.42	*0.000	6.63
Running with the ball (seconds)	10.85	1.35	10.54	1.24	3.60	*0.002	2.85-
Passing towards a small target (degree:	2.17	1.38	3.67	1.19	4.47	*0.000	69.12

*($\alpha \leq 0.05$) Statistically significant differences at the significance level)

The results of Table (5) indicate that there are statistically significant differences at the significance level ($\alpha \leq 0.05$) between the averages of the pre- and post-measurements in all skill variables (passing with the sole of the foot, running zigzag with the ball, shooting with the inside front of the foot) among the seventh grade students in the control group and in favor of the post-measurement, and therefore the hypothesis was accepted, In addition, there was a significant and noticeable effect of the proposed educational program in improving all the skill variables under study, as the percentages of change for them were as follows: (kicking the ball towards the target (40.44%) degrees, handling towards a platform for 30 seconds (6.63%) degrees, running with the ball (-2.85%)

seconds, handling towards a small target (69.12%), The researchers attribute the reason for the slight improvement of the control group in the post-test results to the nature of the traditional model-based method, direct verbal explanation in front of students, repetition, correction of errors, and immediate answering of inquiries, in addition to the fact that the educational units for this method were prepared in advance - as this program is followed up by Directorate of Education supervisor, All of these measures taken were able to provide a traditional educational environment with a slight impact on improving the level of students in the football skills under study. In conclusion, using the traditional method contributes to improving the students' levels slightly, and this result is consistent with the results of: (Setiawan, 2024), (Al-Borsali, 2020), (Al-Mashni, 2015), Which indicated that traditional teaching contributed specifically to the control group's learning of the skill variables, thus, the second hypothesis is validated, which states: "There are statistically significant differences at the level of significance ($\alpha \leq 0.05$) between the averages of the pre- and post-measurements of some skill variables (passing with the sole of the foot, running zigzag with the ball, shooting with the inside front of the foot) among seventh-grade students in the control group.

Third: Results related to the third hypothesis, which reads: There are statistically significant differences at the level of significance ($\alpha \leq 0.05$) in the means of the two post-measurements of some skill variables (passing with the sole of the foot, running zigzag with the ball, shooting with the inside front of the foot) among seventh-grade students between members of the experimental and control groups. To confirm the validity of this hypothesis, an independent samples t-test was used, and the results of Table 6 show this.

Table 6. T-test results for two independent groups to indicate differences in the means of the post-measurement of some skill variables between members of the experimental and control groups (n= 36)

Skills variables	Pre measurement		Post measurement		T Value	Sig
	M	SD	M	SD		
Kicking the ball to the goal (degree)	7.06	1.95	5	1.97	3.14	*0.003
Handling in a flat direction for 30 seconds (degrees)	26.06	4.01	22.33	4.37	2.67	*0.012
Running with the ball (seconds)	9.31	1.48	10.54	1.24	2.71-	*0.011
Passing towards a small target (degrees)	5.11	0.90	3.67	1.19	4.11	*0.000

*($\alpha \geq 0.05$) Statistically significant differences at the significance level)

The results of Table 6 indicate that there are statistically significant differences at the significance level ($\alpha \leq 0.05$) in the means of the post-measurement of all skill variables among seventh-grade students between members of the experimental and control groups, in favor of the experimental group. Therefore, the hypothesis was accepted, and the graphs (1-4) show this.

graphs (1)

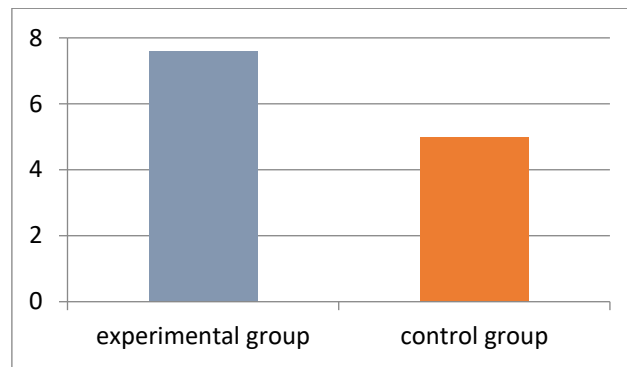


Figure 1. Average post-measurement of the skill of kicking the ball towards the goal for members of the experimental and control groups

Figure (2)

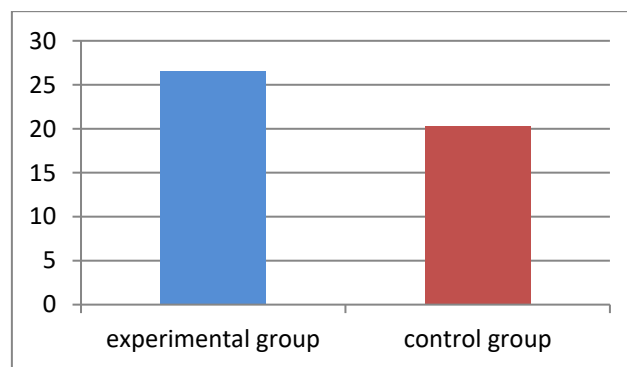


Figure 2. Average post-measurement of handling skill in the direction of Mastaba for members of the experimental and control groups

Figure (3)

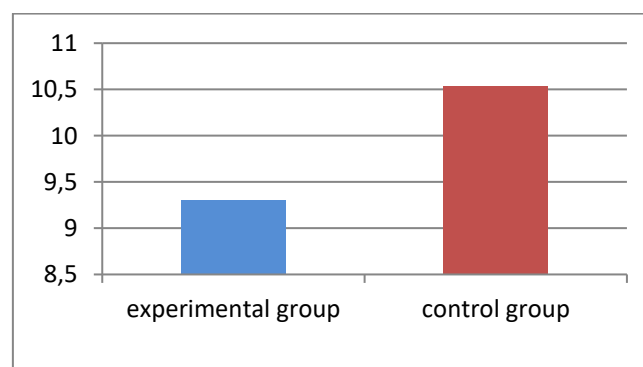


Figure 3. Average post-measurement of ball running skill among members of the experimental and control groups

Figure (4)

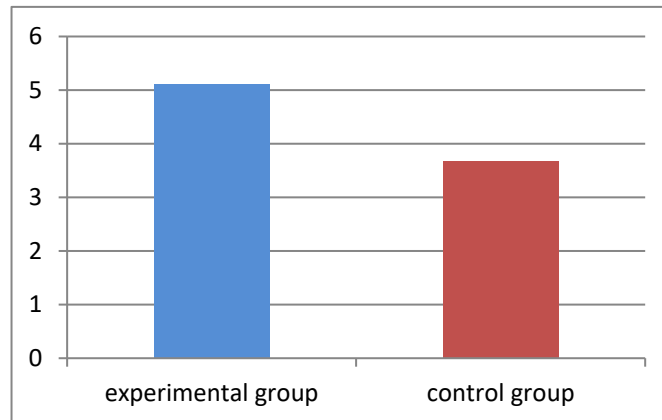


Figure 4. Average post-measurement of handling skill towards a small target for members of the experimental and control groups

Researchers refer the superiority of the experimental group over the control group was due to the educational program in which the flipped classroom strategy was used, which took the students to a new and different experience that made them learn better, individually and collectively, by stimulating their motivation and being more exciting and enthusiastic in the direction of achievement, this method included detailed and accurate explanation of the technical points of the skills under study, by sending information to the students in a partial, smooth and sequential manner, with the possibility of returning to them whenever he wanted and at a speed that was compatible with his abilities.

This reduced the mental burden that traditional education relies on in pumping the largest amount of information during the lesson, in addition to the above, method that places the student under greater responsibility in making decisions, and it was characterized by the principle of diversification in the forms of communicating information and knowledge, and this improved the effectiveness of feedback to the students, in addition to the presence of exercises related to each skill that was able to refine them better. These factors led to attracting and providing visual stimulation for their constant follow-up and attention, which raised the level of their skill and knowledge in the face of the traditional method, restricted to fixed, stereotypical, repetitive procedures that made students lose a large part of their motivation and enjoyment towards learning.

This result is consistent with the results of (Asaad, 2025) and (Atta, 2022), which indicated that using the flipped classroom strategy adds success and positive impact to the educational process this is due to his ability to make the student accountable in making his decisions, and this develops the integrity of his personality and increases his active participation, thus developing his strong motivation towards loving self-learning with vitality and excitement, and thus the validity of the third hypothesis is achieved.

4. Conclusions

There is a significant and noticeable positive effect of the flipped classroom strategy on learning the basic skills in football under study for the students of the experimental group. The usual or traditional teaching (explanation followed by the model) contributed positively to learning the basic football skills under study for the students of the control group. The experimental group that used the flipped classroom strategy was more effective than the control group that used the traditional

method in “learning the basic skills in football under study”, which indicates that flipped education with technology has a positive impact on developing students’ levels beyond all traditional methods.

5. Recommendations

In light of the researchers’ findings from the discussion of the results, the following is recommended: The necessity of using the flipped classroom strategy in learning sports skills for school students, because of its significant and high impact in developing the quality of education and raising students’ skills and cognitive levels. Conduct similar studies on other aspects of individual and group sports for schoolchildren and university students. The necessity of studying new methods of teaching physical education courses that take advantage of technological development in a greater and deeper way.

Declarations

Conflicts of Interest. The authors declare no conflict of interest.

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