



Impact Of A Competitive Learning Strategy To Learn Some Basic Offensive Basketball Skills For Middle School Students

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Abstract

This study seeks to achieve a set of scientific and practical objectives that contribute to developing our understanding of process of learning Sports skills to reveal extent to which competitive learning strategy affects improvement of basic offensive basketball skills performance among middle school students. Measuring differences in improvement rates between experimental group that uses competition-based learning strategy and control group that follows traditional learning methods. Identify which offensive skills shooting, dribbling, passing are most affected by application of this strategy. The researcher adopted experimental method by designing two equivalent groups experimental and control with pre- and post-testing, in order to suit nature of problem and its objectives. Research community was defined as middle school students for academic year 2025-2026, totaling 127 students from three sections. The main experimental sample was selected randomly using a simple lottery method, consisting of 40 students from section (A), who were divided into two equal groups: experimental 15 students and control 15 students, representing 31.5% of research community, and a pilot experimental sample consisting of 10 students, representing 7.9% of total research community. Based on results of pre- and post-tests for two research groups and comparing them with significance level of 0.05, that all test values were greater than significance level, and this indicates significance of differences between pre- and post-tests for two research groups.

Keywords: *Competitive Learning Strategy, Offensive Skills, Basketball, Students.*

INTRODUCTION

The educational process in the field of sports is witnessing continuous development towards adopting modern strategies aimed at raising the level of athletic performance and increasing the effectiveness of learning. Among these strategies, competitive learning has emerged as an innovative method that seeks to utilize the innate competitive nature of learners to achieve specific educational goals. With the rapid development of global teaching methods, it has become necessary to move from traditional rote learning methods that rely on mechanical practice of skills to active learning strategies that place students at the center of the educational process (Al-Dulaimi, 2015; Muhammad, 2001). Basketball is a team sport that requires mastery of a diverse range of complex motor skills, particularly those related to the offensive side of

the game. These skills include various types of shooting, dribbling, and passing, in addition to tactical skills related to movement with and without the ball.

The development of these skills requires appropriate learning methods that are capable of integrating technical practice, motor coordination, decision-making, and performance under competitive conditions (Stanković et al., 2022; Tymoshenko et al., 2021; Tymoshenko et al., 2022). These skills include various types of shooting, dribbling, and passing, in addition to tactical skills related to movement with and without ball. Teaching these skills to middle school students requires specific educational methods that consider characteristics of this age group in terms of physical, mental, and social development. It demands high neuromuscular coordination and ability to make quick decisions under competitive pressure. Middle school adolescence is one of the most important developmental stages in which motor skills mature, as students at this stage are characterized by a desire for excellence, self-affirmation, and a tendency towards challenge.

Teaching basketball skills to middle school students requires specific educational methods that consider the characteristics of this age group in terms of physical, mental, and social development. Basketball demands high levels of neuromuscular coordination and the ability to make quick decisions under competitive pressure. Cognitive abilities and psychological characteristics can influence the way basketball players respond to performance situations, particularly when technical actions must be performed under pressure (Vasilev & Iliev, 2024). At the same time, adolescence is an important developmental stage in which motor skills mature and students are characterized by a desire for achievement, self-affirmation, and a tendency toward challenge.

Competitive learning strategy stands out as an effective educational tool. It is not limited to being a physical activity, but is a stimulating educational environment that relies on creating organized competitive situations aimed at pushing the student towards achieving skill mastery (Al-Dulaimi, 2015; Muhammad, 2001; Khader, 1998). It is not limited to being a physical activity, but is a stimulating educational environment that relies on creating organized competitive situations aimed at pushing student towards achieving skill mastery. Contemporary studies in physical education have shown that children at this stage respond positively to competitive activities, motivating them to exert more effort and demonstrate a higher level of performance compared to traditional

teaching methods.

Contemporary research involving basketball players has also emphasized the importance of motivation, enjoyment, and performance in sports participation. Performance and motivation are interconnected components of the learning and development process, particularly among young basketball players (Soares et al., 2020). In addition, recent research has highlighted the role of passion and affect in adolescents' participation in basketball, suggesting that psychological and motivational factors should be considered when designing learning experiences (Wang, Mao, & Tang, 2025). Using competition as a teaching strategy stimulates intrinsic motivation in learners and can reduce boredom that may accompany repetition of basic skills such as passing, shooting, and dribbling. When a lesson transforms from mere repetitive training into a match or challenge, student focus can increase, while the skill becomes a means of achieving a competitive goal. This can enhance engagement and encourage learners to exert greater effort during practice (Soares et al., 2020; Wang, Mao, & Tang, 2025).

Importance of this study can be summarized in following points:

Scientific importance: This research contributes to enriching Arab sports library with scientific material that links modern theories in educational psychology learning through competition with field application in physical education lessons. Practical importance: Providing physical education teachers with a ready-made and applicable teaching model helps overcome drawbacks of traditional method and raises level of students' performance in basketball offensive skills. Educational importance: Competitive learning strategy may contribute to enhancing important personal and social characteristics among middle school students, including self-confidence, teamwork, adherence to rules, responsibility, and the ability to accept winning and losing in a sporting spirit (Muhammad, 1996; Al-Dulaimi, 2015).

The study problem stems from the researcher's field observations while teaching physical education, where a clear disparity was noted in students' performance levels of basic offensive basketball skills. This disparity may reflect shortcomings in currently used teaching methods, which rely primarily on traditional approaches and repetitive practice. Although basketball requires the integration of technical, motor, cognitive, and psychological components, the teaching process may still emphasize mechanical repetition without providing sufficient competitive stimulation. Previous literature has

emphasized the importance of developing motor abilities and basketball-specific performance through appropriately structured practice (Stanković et al., 2022; Tymoshenko et al., 2021). There is also a noticeable lack of studies examining the effectiveness of competition-based learning strategies in teaching basic offensive basketball skills among middle school students within the context of the present research setting. Therefore, this study seeks to address this gap by investigating whether a structured competitive learning strategy can improve students' performance in passing, dribbling, and shooting.

Research Objectives: This study seeks to achieve a set of scientific and practical objectives that contribute to developing our understanding of process of learning Sports skills to reveal extent to which competitive learning strategy affects improvement of basic offensive basketball skills performance among middle school students. Measuring differences in improvement rates between experimental group that uses competition-based learning strategy and control group that follows traditional learning methods. Identify which offensive skills shooting, dribbling, passing are most affected by application of this strategy. **Research Hypotheses:** Based on a review of previous literature and theoretical framework of study, following hypotheses were formulated there are statistically significant differences between pre- and post-measurements of experimental group in basic offensive basketball skills, in favor of post-measurement. There are statistically significant differences between post-test measurements of experimental and control groups in basic offensive skills, in favor of experimental group that applied competition learning strategy.

RESEARCH METHODOLOGY

The researcher adopted experimental method by designing two equivalent groups experimental and control with pre- and post-testing, in order to suit nature of research problem and its objectives. Research community was defined as middle school students second intermediate in General Directorate of Education in Babylon Governorate Al-Hashimiya District Education Department for academic year 2025-2026, totaling 127 students from three sections. The main experimental sample was selected randomly using a simple lottery method, consisting of 40 students from section (A), who were divided into two equal groups: experimental 15 students and control 15 students, representing 31.5% of research community, and a pilot experimental sample consisting of 10 students,

representing 7.9% of total research community.

Identifying Variables And Tests

The researcher identified several basic offensive basketball skills considered important components of basketball performance. These skills were chest pass, high dribbling, and lay-up shooting. The selection of these skills was based on their importance in the development of fundamental basketball performance and their suitability for the age and skill level of the research sample. Research on basketball players has demonstrated the importance of motor abilities, coordination, and technical performance in basketball. The development of speed and coordination is particularly relevant to the performance of basketball skills (Tymoshenko et al., 2021). Similarly, research on basketball players has examined relationships between motor abilities and competitive level and playing position (Stanković et al., 2022).

Technical performance test for chest handling skill: purpose of test is to evaluate technical performance of chest handling skill. Performance description: test subject performs a chest pass from a moving position with another player inside basketball court. Recording: player is photographed and given three attempts. best attempt is counted, and attempts of all members of sample are collected and handed over to experts to evaluate technical performance, grade is given as in evaluation form for chest handling skill (Preparatory part 3 marks) (Main part 4 marks) (Final part 3 marks). Technical performance test for high-level tapping skill: purpose of test: To evaluate level of technical performance in high-level tapping skill. Performance description: player performs a dribble from beginning of basketball court line to end of court, alternating hands back and forth. Recording: player is filmed and given three attempts, and best attempt is counted, with a rest period between attempts, attempts of all members of sample are collected and handed over to experts to evaluate technical performance, and grade is given as in evaluation form for high-level dribble skill (Preparatory part 3 marks) (Main part 4 marks) (Final part 3 marks).

Testing technical performance of lay-up shooting technique: purpose of test: to evaluate technical performance of lay-up shooting technique. Performance description: player stands behind free throw line on right side, holds a ball in his hand, and performs a safe shot at basket. Recording: player is photographed and given three attempts. best attempt is counted, and attempts of all members of sample are collected and handed over

to experts to evaluate technical performance. grade is given as in evaluation form for skill of lay-up shot (Preparatory part 3 points) (Main part 4 points) (Final part 3 points).

Pilot study

The researcher was able to conduct his exploratory experiment on a sample of 10 students from middle of aforementioned sample, which was selected by simple random method by drawing lots. This took place on Sunday, 10/26/2025, in outer courtyard of school. purpose of this was to find out time required for tests related to skills being researched, as well as ability of sample to perform these tests, and also suitability of devices and tools used in research. Note that this sample will not be part of main research sample, so it was completely excluded.

Pre - tests

Pre-test was conducted in school's outer courtyard on Monday, November 2, 2025, on main research sample control and experimental with tests that were chosen to obtain pre-test results for sample. The researcher tried to control all external variables that he could control so that post-test could be applied with same conditions and specifications as pre-test.

Proposed experimental design

Educational program comprises learning units distributed over several weeks, with each unit containing specific skill objectives focusing on offensive skills passing, dribbling, and shooting. Learning units are structured sequentially, beginning with a general warm-up, followed by skill introduction, and then practical component. In this practical component, a "competition strategy" is implemented by dividing students into small teams that compete in executing skills under time pressure or physical challenges, ensuring simulation of actual match conditions, implementation mechanism is based on a gradual progression, starting with individual skills and moving to team skills within a competitive framework, while providing immediate feedback to students to reinforce correct performance. The researcher supervises implementation of units to ensure experimental group adheres to strategy's requirements, while maintaining uniformity in time and place for both groups to guarantee accuracy of results. proposed program consists of following:

1- Program timeframe: Program duration: 8 weeks. Number of units per week: Two educational units in accordance with school timetable. Total number of units 16 Educational unit. Unit duration : 45 minute.

2- Dividing learning unit time (60 minutes): Preparatory part (preparation) (10 minutes): General warm-up (light jogging) + ball-specific warm-up. Main Part: (40 minutes) Implementing competition-based learning strategy explaining skill, then conducting challenge). Final part 10 minutes: Cooling down and stretching exercises + a quick review of what has been learned

3- Mechanism for implementing competitive learning strategy: Strategy is implemented through a "structural challenge" as follows: Division: Students are divided into small groups (e.g., 4-5 students per group) to ensure intensive practice. Challenge model: skill is not taught in a rigid, repetitive way, but rather a "goal" is set for each skill. Example of shooting skill): Instead of free shooting, two teams compete in number of correct hits in two minutes" or accumulated points challenge. Gradual increase in difficulty: challenge begins with individual skills competition against time, then moves to pairs challenges, and then group challenges (competition between two teams). Feedback: Feedback (correction) is provided immediately after end of each competitive round to reinforce correct performance and avoid entrenching mistakes.

4- Implementation mechanism within field: When implementing strategy, teacher distributes "challenge" cards to teams, each card containing a specific skill challenge (e.g., "Make 10 accurate passes in 30 seconds"). team that achieves required number first, or with the highest accuracy, receives a "point of distinction." This approach transforms student from a passive recipient of information into an active "performance seeker" striving to win competition, significantly enhancing both mental and physical focus.

Post-tests

After completing application of competition learning strategy, the researcher conducted post-test in school's outdoor area on Thursday, December 18, 2025, on the main research sample (control and experimental) with tests that were tested in pre-test to obtain post-test results for sample. The researcher tried to keep all external variables that he could control constant so that post-test could be applied with same conditions and specifications as pre-test.

Statistical methods

The researcher will use statistical package SPSS and the following rules: Percentage. Arithmetic mean. Standard deviation. t- test for correlated samples. t-test for uncorrelated samples.

RESULTS AND DISCUSSING

Presentation and analysis results of pre- and post-tests of the control group members in variables under investigation. In order to reveal difference between pre-tests and post-tests of control group, the researcher used paired samples t-test. Extracting calculated value of (t) as shown in Table (1).

Table 1. Shows means, standard deviations and calculated value of (t) for pre-test and post-test for control group members in variables under investigation

Variables	Pre-test		Post-test		Calculated (t) value	Sig. level	Sig. type
	M.	St.d	M.	St.d			
High Dribble	3.93	2.01	5.42	1.11	13.62	0.04	Sig.
Chest Pass	4.25	1.32	6.47	0.89	10.14	0.03	Sig.
Lay-up	3.15	2.14	5.20	1.88	8.52	0.00	Sig.

Presentation and analysis results of pre- and post-tests of experimental group members in variables under investigation

Table 2. Shows means, standard deviations, calculated (t) value, and tabular relationship between pre-test and post-test of experimental group in variables under investigation

Variables	Pre-test		Post-test		Calculated (t) value	Sig. level	Sig. type
	M.	St.d	M.	St.d			
High Dribble	3.64	2.18	6.84	0.21	14.83	0.02	Sig.

Chest Pass	4.39	1.29	7.37	0.77	7.41	0.01	Sig.
Lay-up	4.83	2.20	6.73	0.64	16.03	0.00	Sig.

Presentation and analysis of post-test results for control and experimental groups in variables under investigation. In order to determine significance of differences in post-tests between control and experimental groups in cognitive achievement test of some basketball skills, the researcher used Independent Samples t - test, as shown in Table (3). **Table 3.** Shows means, standard deviations and calculated value of (t) between post-tests of variables under investigation for control and experimental groups

Variables	Control group		Experimental group		Calculated (t) value	Sig. level	Sig. type
	M.	St.d	M.	St.d			
High Dribble	5.42	1.11	6.84	0.21	4.84	0.000	Sig.
Chest Pass	6.47	0.89	7.37	0.77	6.13	0.000	Sig.
Lay-up	5.20	1.88	6.73	0.64	8.52	0.002	Sig.

DISCUSSION

The results presented in Tables 1, 2, and 3 show clear differences between the pre-test and post-test measurements, as well as between the post-test results of the experimental and control groups. Although both groups demonstrated improvement, the experimental group achieved greater gains in high dribbling, chest passing, and lay-up shooting. This finding suggests that the competitive learning strategy provided additional benefits beyond those obtained through regular practice. The superiority of the experimental group can be explained by the way the competitive learning strategy changed the atmosphere of the learning process. Instead of relying mainly on repetitive practice, students were placed in situations that encouraged them to be active, challenged, and involved in achieving specific performance goals. Competition for points, completing tasks within a given time, and attempting to achieve victory created a stronger sense of challenge and encouraged students to put greater effort into performing the skills. In this context, competition was not simply used to determine a winner, but became a means of

increasing students' participation and enthusiasm during learning. This finding is in line with previous research showing that competition can contribute to motor satisfaction, achievement, motor skill development, and positive attitudes toward learning (Khader, 1998; Muhammad, 1996).

Competition between two or more individuals or groups can encourage students to mobilize both their psychological and physical abilities in order to achieve the assigned goal. In the present study, students were required to perform basketball skills under conditions involving points, time limits, and immediate feedback. These conditions appeared to encourage students to pay greater attention to the task and to maintain their effort throughout the learning activity. The competitive situation also created a learning environment in which students were more willing to repeat movements and correct their performance because they wanted to achieve better results than their previous performance or than their peers. Another important aspect of the competitive learning strategy was the use of different forms of competition, including individual, paired, and group competition. These variations prevented the learning process from becoming monotonous and gave students opportunities to experience different forms of challenge. From the perspective of motor learning, varying practice conditions and gradually increasing task difficulty can provide learners with opportunities to adapt their motor responses and improve their movement performance (Al-Dulaimi, 2015).

The motivational dimension of the learning process is also important when interpreting these findings. The results are consistent with research emphasizing the importance of motivation and enjoyment in young basketball players. Soares et al. (2020) highlighted the relationship between performance, motivation, and enjoyment among young female basketball players, indicating that psychological factors should be considered alongside physical and technical performance. Similarly, Wang, Mao, and Tang (2025) emphasized the role of passion and affect in adolescents' participation in basketball. These findings provide a broader explanation for why a learning environment that is enjoyable, challenging, and emotionally engaging may contribute positively to students' participation and skill development.

The improvement in basketball skills observed in the experimental group may also be related to the interaction between different motor abilities. Basketball performance does not depend on a single physical ability; rather, players need to

coordinate speed, strength, balance, coordination, and technical execution. Stanković et al. (2022) emphasized the importance of motor abilities in relation to basketball performance, competitive rank, and playing position. Similarly, Tymoshenko et al. (2021) reported the importance of speed and coordination in relation to basketball performance among students. Other research has also examined the development of motor skills and basketball techniques through specialized exercise equipment (Tymoshenko et al., 2022). These findings support the view that technical skill development should be understood as part of a broader interaction between physical and motor capacities. The competitive conditions used in the present study may have strengthened this interaction. Students were required to perform technical skills while responding to time limits, points, and competitive pressure. Such conditions may have encouraged them to perform movements more efficiently and to coordinate their actions while trying to achieve the assigned goal. Repeated exposure to these situations may have helped students become more familiar with the technical movements and more confident in performing them under pressure.

Shooting is one of the fundamental offensive skills in basketball and requires the effective coordination of several movement components. Previous research has examined the relationship between free-throw accuracy and performance variables among basketball players (Shigematsu et al., 2022). In addition, Tyagi et al. (2024) demonstrated that physical training can influence basketball-specific performance variables, including ball release speed, jump height, upper-limb performance, and shooting accuracy. Although the present study did not employ the same training approach as these studies, their findings support the importance of considering the interaction between physical and technical components when evaluating basketball skill performance. The same principle can be applied to dribbling and passing. Effective execution of these skills requires students to control their body movements while responding to the position of the ball, the movement of other players, and the demands of the task. The competitive learning strategy provided repeated opportunities to perform these skills while maintaining attention toward a specific target. As a result, students may have developed greater movement control and improved their ability to execute the skills within the conditions established by the teacher.

Group competition was particularly valuable because it combined skill practice with social interaction. In this learning model, students performed the learned skills

together while communicating, sharing information, and supporting one another. Such interaction can make the learning process more meaningful because students are not only focused on their individual performance but also become involved in the performance of their teammates. Through this process, personal and social competencies can develop alongside motor skills. Group competition may also be particularly useful for students who initially show lower levels of motivation. When students work together toward a common goal, they may feel greater encouragement from their peers and become more willing to participate in the learning activity. At the same time, the presence of points, challenges, and group goals can create a sense of responsibility and encourage students to contribute to their team's performance. This supports the findings of Muhammad (1996), who reported that competition can contribute to the development and improvement of motor skills and attitudes. It is also consistent with the importance of motivation and enjoyment in youth basketball participation reported by Soares et al. (2020).

The competitive learning strategy therefore offered several practical benefits in the present study. Students were encouraged to give their best effort because they wanted to achieve the assigned goal and experience success. The competitive situation also encouraged students to complete tasks more actively and efficiently. At the same time, repeated challenges allowed students to explore abilities that might not have appeared as clearly during conventional practice. In this sense, competition can contribute not only to the development of specific basketball skills but also to the development of confidence, persistence, cooperation, and adaptability. These benefits are particularly relevant to group competition. Students learned to perform skills while communicating with their peers, exchanging information, and helping one another. The learning process consequently involved not only physical practice but also social interaction and shared problem-solving. The development of these characteristics is important because basketball is a team sport in which successful performance requires cooperation and interaction with others.

The findings are also consistent with the study of Nibras Younis (1996), which reported that sports competition can contribute to the development and improvement of individuals' skills and abilities. Taken together, the present findings and previous research suggest that competition can be an effective instructional approach when it is carefully

structured and integrated with appropriate technical practice. Overall, the improvement observed in the experimental group should not be attributed to competition alone. The gains likely resulted from the combination of repeated practice, progressively challenging tasks, clear performance goals, immediate feedback, social interaction, and students' active involvement in the learning process. The competitive learning strategy brought these elements together in a way that made the learning environment more dynamic and engaging. Therefore, the greater improvement in high dribbling, chest passing, and lay-up shooting among the experimental group indicates that competitive learning can be a useful strategy for developing basic offensive basketball skills among middle school students.

CONCLUSIONS

Effectiveness of competitive learning strategy: Results proved superiority of experimental group that applied competitive learning strategy in learning offensive skills passing, dribbling, shooting over experimental group, which confirms that incorporating competitive challenge creates a more efficient learning environment than traditional methods. **Enhancing motivation and activity:** Competition strategy succeeded in transforming physical education class from a mechanical practice of skills to interactive learning situations, which led to increased student enthusiasm and focus and a decrease in their level of boredom and skill apathy. **Simulating reality of game:** Strategy demonstrated a high ability to simulate pressures of a real game, which helped students perform basic skills not only with technical accuracy, but also with speed and ability to make right decision under pressure of opponent, which is essence of offensive skills in basketball. **Developing personal and social traits:** Organized competition has led to development of positive values among middle school students, such as teamwork, adherence to rules, responsibility towards team, and ability to accept victory and defeat with a high level of sportsmanship. **Shortening learning time:** Immediate feedback that students receive during competitive challenges has contributed to correcting mistakes quickly, which has led to establishment of motor skills more quickly compared to traditional rote learning methods.

Adopting strategy in school curricula: It is necessary to adopt learning by competition” strategy in physical education teaching plans for intermediate stage, given positive results it has shown in speed and accuracy of acquiring skills. Qualifying

educational staff: Holding training courses and workshops for physical education teachers to familiarize them with mechanisms for designing competition challenges" and how to adjust them to ensure fairness and equal opportunities among students. Preparing an educational guide: Designing and distributing an educational kit containing a variety of challenge cards" for each basketball skill, to serve as a practical guide for teacher during lesson. Diversification in learning situations: Need to diversify practice environment time challenges, distance challenges, accuracy challenges to ensure continuity of excitement and to accommodate individual differences between students.

Conducting complementary studies: The researcher recommends conducting similar studies that focus on defensive skills in basketball, or applying strategy to different age groups (such as high school) to generalize educational benefit. Investing in technology in refereeing: Using simple tools such as digital timers or scoreboards) during execution of challenges to enhance competitive nature and add more excitement to lesson.

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