

Play-Based Learning Strategy in Teaching Shooting in Basketball

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ABSTRACT

This study investigated the effectiveness of a teacher-directed play-based learning strategy in improving basketball shooting skills among Grade 11 Humanities and Social Sciences (HUMSS) students at Buanoy National High School, Balamban, Cebu, during the School Year 2024–2025. Employing a quasi-experimental approach, the study involved 48 students from Grade 11 HUMSS B, selected through purposive sampling. Students' shooting performance was assessed before and after implementing the instructional strategy, focusing on five fundamental basketball shooting skills: free throw, jump shot, lay-up, two-point shot, and three-point shot. Data were gathered through performance assessments, observation, and students' learning experiences, while descriptive statistics and the

Wilcoxon test were used to analyze performance differences. Findings revealed improvements across all five shooting competencies following the intervention. Mean performance scores increased from 2.63 to 3.33 in free throws, 2.06 to 3.04 in jump shots, 1.58 to 2.83 in lay-ups, 1.96 to 3.40 in two-point shots, and 1.10 to 2.44 in three-point shots. Statistical analysis indicated a significant difference between students' initial and final performances, supporting the effectiveness of the instructional strategy. The findings suggest that incorporating structured, teacher-guided play activities enhances students' practical shooting abilities by encouraging active participation, skill execution, and experiential learning. Consequently, the study recommends integrating play-based learning strategies into Physical Education instruction and developing improved teaching materials that emphasize interactive activities, proper shooting techniques, and student engagement. Further research involving larger samples and additional basketball competencies is recommended to establish broader applicability across different educational settings and learner populations.

Keywords: *Play-Based Learning, Basketball Shooting Skills, Physical Education, Teacher-Directed Instruction, Quasi-Experimental Design, Student Performance, Sports Education, Experiential Learning*

INTRODUCTION

Sports are part of every culture, although each culture has its own classification of sports. The world first sports were originated in ancient Greece, which involved the preparation for war or training as a hunter, that's explains why so many early games involved the throwing of spears, stakes and rocks, Bellis, (2024). This marks the humble beginning of the current sports today.

Cultural creates an impact of the evolution of sports similar with basketball is extremely profound. This sport has influenced music, fashion, and language, becoming ingrained in popular culture. Basketball has bestowed rise to global icons who transcend the sport, becoming symbols of excellence and resilience, Bair, (2024)

Filipino youths spare their leisure time playing the sports they are intent with. And one of the most played sports is basketball, however, it has been public knowledge that many of the aspiring players didn't undergo proper and formal training, with the proper application of the different teaching strategies which can be started in school setting.

Teaching strategies play an important role in classroom lessons. Without the use of a strategy, teachers would be pointlessly projecting information that doesn't connect with learners or engage them. Strategies help learners participate, connect, and add excitement to the content being delivered. As students become familiar with the various strategies teachers use, some can even apply those strategies independently as they learn new material.

That is why it is of vital importance to identify the effectiveness of teacher-directed play-based learning strategy in learning shooting skills in basketball starting with the student in Buanoy National High School respectively the grade 11 HUMSS students as the respondents in this study.

In addition, this research can be a basis for an improved teaching materials for the Physical Education teachers particularly for the 3rd quarter topic specifically the team and dual sports and most especially it will help the novice teachers to effectively deliver their lessons.

Theoretical Background

This study assumes that there is a significant difference in the application of the teacher-directed play-based learning strategy in learning shooting skills in basketball. The assumption is anchored in the theories of, Model of Collection Creativity (Kalaydjian et. al, 2022), The S.E.D.R.S. Principles (Tim Heur, 2022), Journal of Physical Education Research, Volume 11, Issue II, June 2024, Comparative study on the weight of basketball practice compared to other sport disciplines in middle and secondary schools in Galati, Romania (Ciocoiu Dana Lucica , 2013), and to the study entitled, Achievement and competitiveness in elite youth basketball: what matters? of Carlos E. Gonçalves, Humberto M. Carvalhov, and Ângela Gonçalves (2015).

Physical Education (PE) includes play and sport. Play refers to something formless and free, while sport is a controlled and managed activity. Depicting on Skovbjerg's (2021) play theory, this article explores how PE teachers in Norwegian secondary school's structure play as part of their teaching and curriculum. And how play-based formulas break free the structure of sports in PE by incorporating the assessment and learning outcomes within a competence-based curriculum Skovbjerg & Sand, (2022)

Play-based learning is a mixture of productive play and curricular outcome (Blyth, 2017). When applied in a classroom, play-based learning has an array of upbeat effects on the learners, both academic and social-emotional aspects. As a teacher of a play-based learning classroom, it must be understanding the different types of play, how to create an inclusive environment, and how to use their expertise to enhance the play and learning of their learners. When used effectively, play-based learning can improve and extend the learning both of teachers and the learners. There are many ideas that lay the grounds of different conceptualizations of play. There are two different types of play that have dominated the focus of current research in education. The children pretend to play or free play (e.g., Wallerstedt & Pramling, 2012) and adult guided play (e.g., Weisberg, HirshPasek, & Golinkoff, 2013).

Pretend-play or free play, define as exclusively child-directed (Bergen, 2002; Miller & Almon, 2009) and therefore a type of free play. Though some researchers have emphasized the unclear nature of the concept of free-play or pretend-play, subsequently even spontaneous, child-led play is dependent on their previous experiences. When applying to basketball, usually the learners will utilized the knowledge, they have learned outside the classroom setting.

Adult guided play, on the other hand, is described as "midway between direct instruction and free play". In guided play, the activity can be either learner-initiated or adult-initiated, but it is highlighted as a child-directed practice where, just like in free play, the focus of control is placed with the learners. Learners direct their own learning within the established play contexts, while teachers as the adult enhance the

learning experience by playing the role of commenters, coplayers, questioners, or demonstrators of new ways to interact with the materials involved (Golinkoff et al., 2013) This type of play-based requires the teacher to guide the learners if applied in teaching-learning settings, which can be done in many ways like using wrestling to start the play-based lesson, giving the learners a self-driven time to initiate the play (Leirhaug et al., (2023).

Both types of plays have a massive role in the social growth of every learner in a collective manner. The use of free play as a case of distributed collective creativity, it is understanding rule-playing in terms of two complementary modes, the group exploration which groups who find new ventures and the group exploitation, a group that harvests the learnings produced in the play, and the transition between them, (Kalaydjian et al., 2022)

A model of collective creativity by Kalaydjian, Laroche, Noy, and Bachrach (2022) in free play is often discussed as a collection of individuals each being creative, collective creativity is not a property of individual agents however, it appears from the interactions within a group.

Furthermore, utilizing the model of collective creativity (Kalaydjian et al., (2022) in application with the basketball shooting principle of Coach Tim Heur the S.E.D.R.S. that stands for Stance, Eyes, Dip, Release, Sweep and Sway” *The Art of Shooting a Basketball 180 Coaching*, (2022). With the different techniques and mechanics used in basketball shooting, S.E.D.R.S. principles allow some of the current basketball shooting concepts and combine them into an organized and concentrated format. This principle also emphasizes important factors to be considered in shooting a basketball, according to Sloan sports analytics paper written by Rachel Marty and Simon Lucey University of California, San Diego and Carnegie Mellon University, “improving the concepts of Alignment (left-right consistency), Shot Depth, and Arc (angle of the shot, angle consistency) will improve basketball shooting”. Uniformity of principles used in different shooting in basketball is also considering having the same motion. “Wanting to streamline the shooting process by using the same techniques on all of our shots” (*The Art of Shooting a Basketball | 180 coaching*, (2022, June 21), however some of the players use different techniques in every shooting like jump shot, free throw, and lay-up.

Stance includes the placement of the hand and feet in shooting basketball. Placing your hand at the side of ball may help the shooter make sure to create a basket. Also, putting the ball on the palm of the hand is believed to have a successful basket. By putting the hand at the back of the ball will make it harder to dip the basketball.

Eyes switch between two focal points. Initially, it focuses 11” past the front of the rim that is believed to be the sweet spot and it has two ways on how to do it, first, by not aiming at all but instead just instinctually looking at the basket and second, following some professional basketball players like Stephen Curry by looking at the three (3) hooks that hold the net. After releasing the ball, switch the focus to the hand and follow the flight/Arc of the ball. There are great shooters who always watch the flight of the ball by locking to the target 90% of the time and 10% watching the arc of the ball. Dominant eye is a factor to have a good basket, knowing players’ dominant eye affects shooting motion.

Dip is the rhythm in basketball shooting. Dipping helps the players to have time to release along with the ball going straight to the rim because it adds power, most importantly it helps connect the upper and lower body shooting mechanics. Dip synchronizes the timing during the release connecting the upper and lower body. As the ball dips down, the knees bend as the ball hits the waist and begin to come up, out of the dip, the knees flex out. Dipping in general helps the timing aspect of releasing the ball on the shot.

Release is the shooting motion that must be smooth and effortless 70% of the maximum speed. Shooting should be in line with the shooting shoulder and shooting eye, locking the elbow and letting the wrist to flop down. Used by Steph Curry and Ray Allen, in releasing the ball, four (4) fingers should be down. Don’t overemphasize the snapping of the wrist, in doing so, add more variables to the shot.

Sweep or Sway includes a subtle hip and shoulder rotation along with the feet turning. The twisting action in combination with the sweep and sway gives the shot power along with alignment. By sweeping

the feet forward, the shoulders will naturally swayback and makes it easier to track the arc on the shot with little head movement. The longer the shot, the greater the sweep. Having relaxed shoulders avoids tension in shooting.

According to the study of Ciocoiu Dana Lucica entitled Comparative study on the weight of basketball practice compared to other sport disciplines in middle and secondary schools in Galati, Romania, the weight of basketball training in Galati offers important information and activity guidance solutions for the young individuals who wish to learn or teach basketball (2013). The importance of a hands-on activity will not just give the students the learning on how to play the game but to instill on how to execute the proper basketball shooting effectively and efficiently.

Moreover, in teaching different basketball shooting, it comes in two ways, it can be focused on competitive outcomes or improving learner's skills in the said sport. In the study, "Achievement and competitiveness in elite youth basketball: what matters?" of Carlos E. Gonçalves, Humberto M. Carvalhov, and Ângela Gonçalves (2015), in teaching the skills in basketball, it should be in comprehensive approach to provide the teachers, coaches, and trainers with useful information that can have a major influence in the youngsters' lives.

Also, play-based serves as guide to the teacher in the students' interaction and, in return, uses the students' interest and motivation to explore concept and ideas (Acevedo, 2022). In the study entitled, Teacher's Implementation Play-Based Learning Practices and Barriers Encountered in Kindergarten Classrooms, it emphasizes that through this model, students will have an engaging learning activity by receiving instructions and acquire and practice academic skills within a playful context. The same in teaching the different shooting in basketball that some is not familiar with, to deliver and teach the skills in an engaging manner, this strategy helps it to make the learning process easy and fun.

It is undeniable that learners in today's generation are more engaged to technologies rather than physical activities that is quite contradicting to what is stated in K-12 Most Essential Learning Competency (MELC) with the curriculum code of PEH11FH-Ia-t-8, "Engages in moderate to vigorous physical activities (MVPAs) for at least 60 minutes most days of the week in a variety of settings in- and out of school." Promoting and influencing individuals through physical activities is one of the considerations in Department of Education. According to the Greek philosopher Heraclitus, there is no other constant in this world except change. These changes resulted to the modernization of the nation-state in which it affects the learners' interest in engaging to physical activities that will promote a healthy lifestyle. Teaching team and dual sports without an effective and efficient strategy is a challenge considering the invention of the technologies that really affects everyone's lives specifically the level of interest and focus of the students to any physical activities.

The importance of other learning styles and learning modalities rather than the standard one that will possibly leave out millions of students, auditory, visual, and kinesthetic (Theory on Learning Modalities - Olmstead, 2022). Learners today where modernization and globalization is present, they need more interactive and engaging strategy in the teaching-learning process specifically in shooting in basketball knowing it needs body movement and actual participation and execution.

When face-to-face instruction is back after the modular learning because of pandemic, facilitating learning in Physical Education become a great challenge in advancing academic achievement and holistic learner development considering that sport is a major subject in Physical Education that even Grade 7 to Grade 10 are encouraged to participate from different individual and team sports (Journal of Physical Education Research, Volume 11, Issue II, June 2024). Sports become the source of happiness and fun for others that tend to focus on winning rather than developing values because of the methods and strategies used in introducing sports to the students. Moreover, promoting the acquisition of basic skills before engaging to actual sports enhances motivation and engagement among learners. Teaching the skills through fun and interactive strategy, they are more likely interested and motivated to stay and engage to sports.

Game-based Learning supports in the development of crucial cognitive and social skills through activities that improve students' memory and alertness as they need to think quickly and stay focus to details (MomsTeam, 2024). The involvement of students helps solidify the learning basic skills and often involve teamwork and collaboration which are essential in sports.

Knowing and learning are the effective and efficient way of teaching the different shooting in basketball, it provides vast help to encourage the students to have fun-learning experience, develop the skills needed to excel in the field, and encourage everyone to stay active. For students, this study will serve as a new way on how to make the teaching-learning process more engaging, and for the student-athletes this will serve as a guide to enhance shooting skills.

In our educational system today, a teacher's creativity and initiative are more required. There are various teaching strategies that are introduced to the educators that are useful in the teaching-learning process that considers the differences of the students in terms of their level of intelligence, ability, interest, etc. Like, cooperative learning that aims to organize the classroom activities to become academic and social experiences, differentiated instruction that provides students more than one instruction just to cater their capabilities, collaborative learning that requires two or more people to learn together, to name a few. Most of the learners don't learn with only one style, they normally incorporate two or more learning styles to fully understand and to determine what is to be learned from the new information receives.

This research identifies the effectiveness of teacher-directed play-based learning strategy in learning the shooting skills in basketball by 11- HUMSS in Buanoy National High School as a basis for an improved teaching materials for basketball.

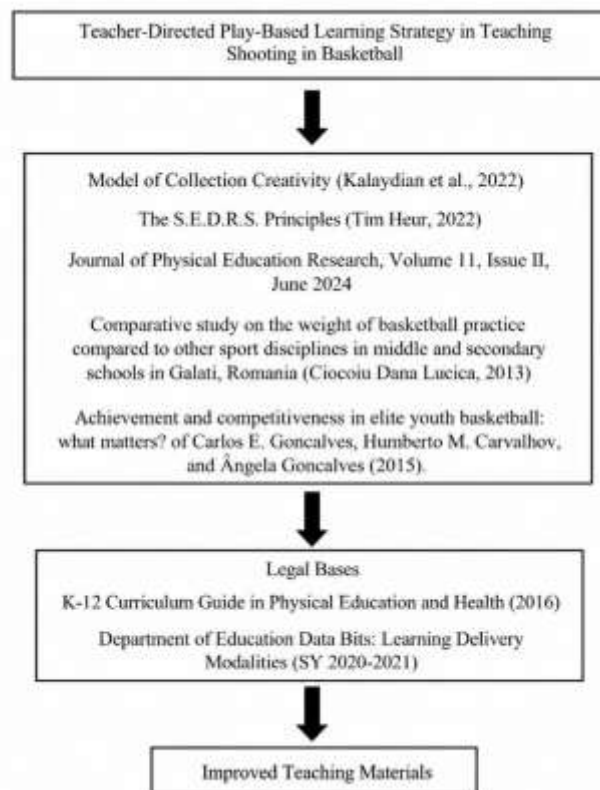


Figure 1. *Theoretical Framework*

Statement of the Problem

This research determined the effectiveness of teacher-directed play-based learning strategy in learning the shooting skills in basketball among 11- HUMSS in Buanoy National High School as a basis for an improved teaching materials for basketball.

Specifically, it sought to answer the following questions:

1. What is the initial performance of the students in the following shooting in basketball on:
 - 1.1 Free Throw;
 - 1.2 Jump Shot ;
 - 1.3 Layup;
 - 1.4 Two-Point Shot;
 - 1.5 Three-Point Shot?
2. After using the teacher-directed play-based learning strategy, what is the post-test performance of the students in the above-mentioned competencies?
3. Is there a significant difference in the application of the teacher-directed play-based learning strategy?
4. What are the students' experiences in their learning the different shooting skills?
5. Based on the findings of the study, what improved teaching materials on the different types of shooting kills in basketball may be designed?

METHODS

Design

This research will used a quasi-descriptive design because the researcher will observed the initial and final performance of the respondents towards the different basketball shooting skills. Since it is a quasi-descriptive design, the researcher will analyzed the initial and final shooting performance results from the respondents in identifying the effectiveness of play-based learning teaching strategy.

The interview method will be used for data collection to answer part IV of the data collection needed to complete the study. The questions will be personally asked to the respondents to find out how effective for them the usage of teaching strategy in learning team sport (basketball) as they are about to achieve the MELCs design for it, "Describe the role of physical activity assessments in managing one's stress (PEH11FH-IIf-5)" and "Observes personal safety protocol to avoid dehydration, overexertion, hypo- and hyperthermia during MVPA participation. (PEH11FH-IIk-t-10)" The interview guide is appropriate to the question so that the data will be consistent and fully understood. The expected output will served as the basis for the improved teaching materials for basketball.

Flow of the Study

Input-Process-Output (IPO) is the approach that will be used in this study in terms of handling information. This approach is defined as a functional graph that identifies inputs, outputs, and the process in making the inputs to become an output.

The study in which "input" represents the collection of data and information in the variables. The "process" includes the submission of transmittal letters, collection and data gathering, statistical treatment, analysis of data, interpretation and drawing of conclusions. The "output" of the study is the proposed improved material for basketball. The schematic flow of this study is presented in figure 2 that follows.

The researcher conducted a pre-test to the respondents to assess the initial performance in the different basketball shooting skills like: free-throw that is done in the free-throw area, jump shot that the student hoop the ball towards the ring by jumping around the shooting areas, lay-up that is done by shooting the ball by jumping under the ring, two-point shot that is done within the line of the three-point area, and three-point shot that is done by shooting the ball outside the three-point area. Also, the researcher conducted a post-test to evaluate the respondent's final performance to the mentioned basketball shooting sills. Moreover, after the conduct of the initial and final performance, the researcher assessed the respondent's

performance by comparing and finding the significant difference about the respondent's initial and final performance. And, conducted an interview to know the different learning experiences of the respondents towards the different shooting skills in basketball with or without the teacher-directed play-based learning strategy.

Before the conduct of the initial and final performance, the teacher asked first an approval from the school principal of Buanoy National High School, Buanoy, Balamabn, Cebu to utilized Grade 11 HUMSS B as the chosen respondents for the study. Right after the approval of the school principal, the researcher conducted a pre-test through initial performance and post-test through final performance of Grade 11 HUMSS B in the different shooting skills in basketball. After the conduct of the initial and final performance, the researcher presented the data through table separately, table for the initial performance, final performance, significant difference, and the learning experiences of the respondents. The researcher interpreted the data and analyze that there is a significant difference in the application of teacher-directed play-based learning strategy in teaching shooting in basketball.

As the data being presented, analyzed, and interpreted, the researched created a teaching material that can be a reference on how to teach the different basketball shooting skills effectively and efficiently utilizing the teacher-directed play-based learning strategy. The teaching material that proposes activities and techniques that can surely help other physical education teachers to increase the learning capabilities of the students of Buanoy National High School.

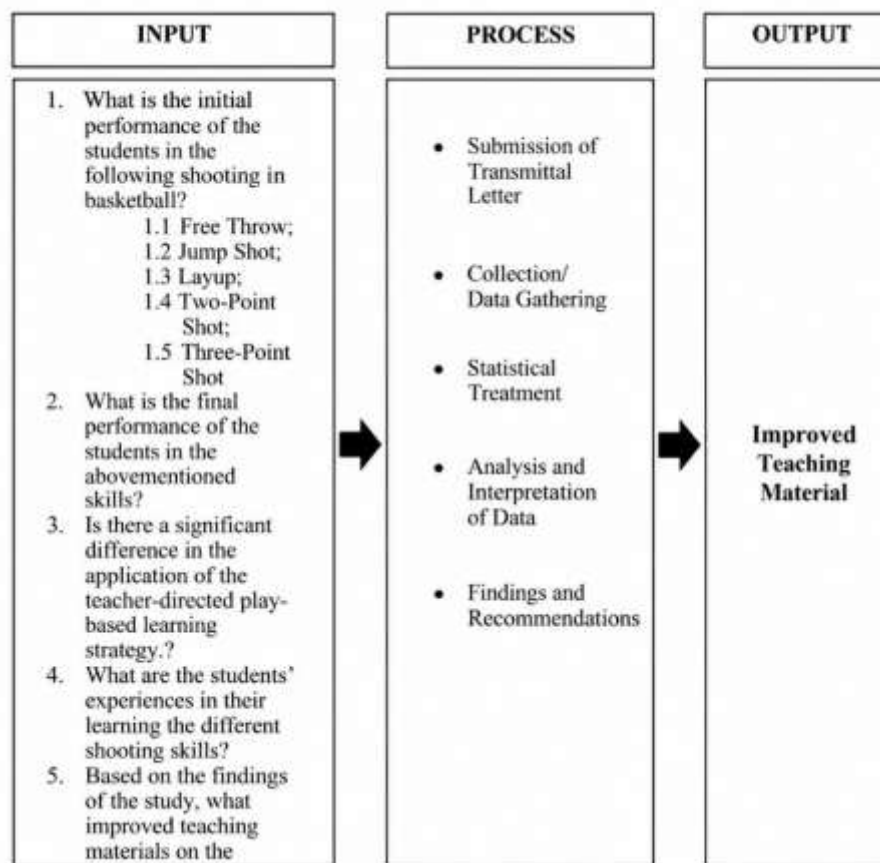


Figure 2. *Flow of the Study*

Environment

Buanoy National High School is considered as the biggest school in the Municipality of Balamban, Province of Cebu. The school was established in the year 1979 at Buanoy, Balamban, Cebu. Today, the school is spearheaded by the very dynamic and active Mr. Cristopher C. Piodos, Acting Secondary School Principal and at the same time, the Public Schools District Superintendent. Jointly working hand in hand with Dr. Mitch A. Beduya, Senior High School Assistant Principal II. Together with the hardworking more than 100 junior and senior high school teachers and non-teaching personnel.

Buanoy National High School offers junior high school from Grade 7 to Grade 10 under three curriculums (a) STE or Science, Technology, and Engineering that is composed of those qualified students who passed the requirement of grades and the entrance test. (b) SSTC or Special Science Technology Curriculum that is composed of those students who did not pass the STE requirements and students and (c) BEC or Basic Education Curriculum that is composed of students that the grades did not meet the requirements for another curriculum. Also, the school offers senior high school from Grade 11 to Grade 12 with the Academic Strands (a) STEM or Science, Technology, Engineering, and Mathematic that is composed of those students who wanted to pursue engineering, medical professions, etc. (b) ABM or Accountancy and Business Management is for the students who wants to take courses about business, commerce, etc. (c) HUMSS or Humanities and Social Sciences is composed of students who wants to become teachers, psychology, and other courses that focuses on social sciences. For the Technical-Vocational Livelihood (d) SMAW- Shielded Metal Arc Works that is composed of mainly male students who are into welding and metal works. (‘e) EIM or Electrical Installation Management for those students who wanted to pursue electrical works. (f) BPP or Bread and Pastry Production/ FBS or Food and Beverage Service is composed of students who wanted to pursue HRM or cooking careers. And lastly (g) Arts and Design Strand is composed of students who has potential in terms of production, performances, and who are actors and actresses. With the total population of 5,289 as of Academic Year 2024-2025.

The school is also called by the people as, “The home of champions.” It is undeniable since in every competition and contest in the district or municipal level, Buanoy National High School always excels either academic contest, sports, or even cultural events. With the given number of students, it is possible to bring out the best of the best considering that the teachers who are coaches are also good in the said field.



Figure 3. Location Map

Respondents

The respondents of the study will be the grade 11-HUMSS B of Buanoy National High School in the academic year 2024-2025 which is composed of 48 students. The idea of using only one section of six HUMSS section is purposive sampling to have a focus on identifying the effectiveness of teacher-directed play-based learning strategy in teaching shooting in basketball.

Instrument

The researcher used a self-made questionnaire adapted from the General Self-Efficacy (GSE) Scale of Schwarzer and Jerusalem (1995) and a checklist for shot success were used to gather data.

Part of the questionnaire is the name and section of the students. It is not required since it is not included to the whole purpose of the study but it is helpful for the researcher to assess the respondent's performance towards the initial and final performance. In the second part of the questionnaire is the table of criterion on how the respondents being assessed on their performance towards the different basketball shooting skills. In the first row is the scoring used in the performance with corresponding verbal description, in the second row until the last row are the different basketball shooting skills assessed. In the last part of the questionnaire is the area where respondents can write their learning experiences towards the performance of the different basketball shooting skills.

Data-gathering procedure

After the validation of instruments, the researcher secured a written letter/permit and that is approved from the acting school principal of Buanoy National High School, Mr. Cristopher C. Piodos. After receiving the permission to conduct the study, the researcher explained the purpose of the study to the respondents and made sure that each participant will correspond to the needed information. The researcher collected the data by means of observation with the performance of the respondents before and after the teacher introduces the new technique in basketball shooting apart from the observation respondents will also be interviewed on the learnings on the basketball shooting experiences before and after the introduction of the new techniques.

This study adheres with the mandate of the National Privacy Commission to administer and implement the Data Privacy Act of 2012 and to monitor and compliance for data protection.

Statistical Treatment

This part of the study emphasized the usage of appropriate statistical tools and discusses their pertinent principles to allow the readers understand well the scientific results which are derived from the inferences on the real data to be gathered yet from the interview to be administered to the respondents.

To obtain the quantitative results of data, the following statistical tools were used.

Average Weighted Mean. This tool will be used to consider some data values to be more important than other values and to eventually contribute more to the final "average". This tool will be used in identifying the effective rate of play-based learning teaching strategy in teaching team sports.

Wilcoxon W. This will be used to test the significant difference between the initial and the final shooting performance of the respondents.

Scoring Procedure. In assessing and evaluating the effectiveness of Play-based learning as teaching strategy in achieving the MELCs of team sports of Grade 11 HUMSS B in Buanoy National High School, it is modified into four scales following the given description.

Weight	Range	Scale	Verbal Description
4	3.26 - 4.00	Exemplary	The teaching strategy shows no problems that need to be addressed.
3	2.51 – 3.25	Proficient	The teaching strategy shows acceptable performance, and minimal problems are to be addressed.
2	1.76 – 2.50	Partially Proficient	The teaching strategy shows sufficient performance, and minimal problems are to be addressed
1	1.0 – 1.75	Unsatisfactory	The teaching strategy low performance and several problems are to be addressed

RESULTS AND DISCUSSION

Teacher-directed play-based learning strategy is a student-centered approach in the teaching-learning process that teachers serve as the guide and the mentor of the students while the students are given a freedom to execute, perform, and discover new learnings. The significant difference of the student's performance during the initial and final performance emphasizes the usage of a learning strategy helps the teaching-learning process effectively and efficiently. Moreover, the learning experiences of the students serves an encouragement to the teachers to give students hands-on activities to increase student's learning capabilities.

Table 1. *Initial Performance*

	Exemplary (4)	Proficient (3)	Partially Proficient (2)	Unsatisfactory (1)	Mean	Standard Deviation (SD)	Description
Free Throw	22.92%	33.33%	27.09%	16.66%	2.63	1.02	Proficient
Jump Shot	----	27.09%	52.08%	20.83%	2.06	0.70	Partially Proficient
Lay-Up	----	8.33%	41.67%	50%	1.58	0.65	Unsatisfactory
Two-Point Shot	4.17%	8.33%	66.67%	20.83%	1.96	0.68	Partially Proficient
Three-Point Shot	----	----	10.42%	89.58%	1.10	0.31	Unsatisfactory

Therefore, the initial performance of the students in the different basketball shooting skills vary according to the different prior knowledge and experience from the respondents.

In free throw shot were respondents trying to make a basket 15-feet away from the basket, 33.33% or most of the respondent's scores proficient. Second, the rank in the execution of free throw is partially proficient, gained by 27.09% of the respondents. Only 22.92% of the respondents' scores are exemplary and 16.66% scores are unsatisfactory in the execution of free throw shot.

In the execution of jump shot where students are given the freedom to shoot the ball anywhere if it is within the rectangular basketball court. More than half of the respondents (52.08%) gained partially proficient score, while 27.09% gained a score of proficient while only 20.83% of the respondents gained a score of unsatisfactory.

For the third basketball shooting skill which is lay-up were students will shoot the ball closer or under the basket, none of the respondents gained an exemplary score while half of the respondents (50%) gained a score of unsatisfactory, 41.67% gained a score of partially proficient, and only 8.33% of the respondents gained a proficient score.

For the two-point shot skills in basketball were students shoot the ball within the three-point arc, majority of the respondents, like 66.67% gained a score of partially proficient, followed by the 20.83% who gained unsatisfactory score, 8.33% gained proficient score, while only 4.17% gained an exemplary score.

And lastly, for the three-point shot that respondents tries to make a basket beyond the three-point arc, majority of the respondents gained an unsatisfactory score which is 89.58% of the respondents, 10.42% gained a partially proficient score, and none of the respondents gained a proficient and exemplary score.

Table 2. *Final Performance*

	Exemplary (4)	Proficient (3)	Partially Proficient (2)	Unsatis-factory (1)	Mean	Standard deviation	Description
Free Throw	41.67%	50%	8.33%	----	3.33	0.63	Proficient
Jump Shot	31.25%	47.92%	14.58%	6.25%	3.04	0.85	Proficient
Lay-Up	20.83%	45.8%	29.17%	4.17%	2.83	0.81	Proficient
Two-Point Shot	52.08%	35.42%	12.5%	----	3.40	0.71	Exemplary
Three- Point Shot	4.17%	52.08%	27.09%	16.66%	2.44	0.82	Partially Proficient

In the final performance of the students, the teacher-directed play-based learning strategy is being applied by the teacher in teaching the students in the different basketball shooting skills specifically the S.E.D.R.S. principles of Coach Tim Heur (The Art of Shooting a Basketball 180 Coaching, 2022).

In free throw shot, results indicate the respondents to execute the skills by handling the ball correctly, right position of feet before shooting the ball, focusing on the target, knowing the correct pacing, and the smoothness in releasing the ball towards the basket. With the strategy being applied, 50% of the respondents gained a proficient score, 41.67% of the respondents gained an exemplary score, and only few, 8.33%, gained a score of partially proficient.

In jump shot, results indicate the respondents to focus on the target, and in releasing the ball towards the basket, proper angle and extra power must be exerted to make a good basket. With these, 47.92% of the respondents gained a score of proficient, 31.25% of the respondents gained an exemplary score, 14.58% gained a partially proficient, and only 6.25% of the respondents gained an unsatisfactory score.

In lay-up shooting skill, same strategy is being applied by the respondents. Correct ball handling like putting the ball on the palm of the hand, focusing the main target, which is the basket, proper pacing in releasing the ball, and relaxing the shoulder before shooting the ball to avoid the tension. With these, 45.8% of the respondents gained a proficiency score, 29.17% gained a partially proficient score, 20.83% of the respondents gained an exemplary score, and only 4.17% gained an unsatisfactory score.

In the two-point shot where respondents are instructed to prioritize the target and patience before releasing the ball, proper angle and ball handling must be executed. With the strategy being applied, more than half of the respondents, 52.08%, gained a score of exemplary. 35.42% of the respondents gained a proficient score, and only 12.5% of the respondents gained a partially proficient score.

In the three-point shot where students are instructed to be in a proper position, relaxed to avoid tension, and being patient in releasing the ball to have a smooth rhythm in shooting the ball towards the basket. With this, 52.08% of the respondents gained a proficient score, 27.09% gained a partially proficient score. 16.66% gained an unsatisfactory score, and there is 4.17% of the respondents gained an exemplary score.

Table 3. *Significant Difference of the Initial and Final Performance of the Students*

Pre-test - Post-test	Mean difference	p-value	Decision	Interpretation
Free Throw	-0.7	<0.001	Reject H_0	Significant
Jump Shot	-1.04	<0.001	Reject H_0	Significant
Lay-Up	-1.25	<0.001	Reject H_0	Significant
Two-Point Shot	-1.44	<0.001	Reject H_0	Significant
Three-Point Shot	-1.34	<0.001	Reject H_0	Significant

Based on the data from the initial and final performance of Grade 11- HUMSS B in the execution of the different basketball shooting skills, there is a mean difference between before the application of the teacher-directed play-based learning strategy and after its implementation.

The performance of the students in the different basketball shooting skills between the initial and final performance of the students highlighted the mean difference of their performance. The data on the different basketball shooting skills suggesting a notable improvement in students' performance after integrating play-based learning strategy as a strategy in teaching the basketball skills. The mean in difference of -0.7 in free throw, -1.04 in jump shot, and -1.25 in lay-up, -1.44 in two-point shot, and -1.34 in three-point shot underlines the effectiveness of this enhancement, indicating that integrating play-based learning strategy significantly benefited students in executing the different basketball shooting skills and to reject the null hypothesis.

A mean difference reveals that the improvement of the execution in shooting in basketball is not just statistically significant but also holds significance. This indicates that students have improved their ability to execute the different shooting skills in basketball. The p-value of less than .001 signifies the statistical significance of these findings that the level of significance showcases play-based learning strategy effectiveness in teaching students' misconceptions and knowledge gaps about the concepts on these competencies.

Table 4. *Learning Experiences of the Students*

Learning Experiences	No. of Respondents
Determination. Students are willing to learn even though they are new to basketball shooting skills.	7 (14.59%)
Physical Limitations. Students are not physically able and has doubts in their physical capabilities.	3 (6.25%)
Skill Awareness. Students are focused on correct pacing, proper ball handling, patience, and appropriate force in shooting the ball to the ring.	16 (33.33%)
Self-Trust. Students are believing on their selves and skills.	4 (8.33%)
Entertainment. Students are enjoying learning the different basketball shooting skills.	18 (37.5%)

After the conduct of the activity in the different shooting skills in basketball before and after using the teacher-directed play-based learning strategy, respondents have different experiences in learning basketball shooting skills that motivates and inspire the students to be involved in any physical activities to have a direct learning experience.

Students experience that learning the different basketball shooting skills is entertaining in a way that they are learning at the same time playing. Also, students have prior knowledge or awareness of the skills become an advantage in making a good basket. Students with determination and eagerness to learn the skills is already a stepping-stone of learning the appropriate technique in shooting the ball. As stated in S.E.D.R. S. principle, to make a good basket, it takes focus, proper handling of the ball, and appropriate force in shooting the ball to the hoop.

While some students believe on their selves and skills that they can shoot the ball, there are students highlighted that physical limitations is a consideration in shooting the ball, like the height and the short arms. With physical limitations, there are students who can't make a good basket even after the learning-strategy is being applied.

Summary of Findings

This research identifies the effectiveness of teacher-directed play-based learning strategy in learning the shooting skills in basketball by Grade 11 HUMSS students in Buanoy National High School as a basis for improved teaching materials for basketball. The increase in students' performance is already considered a significant implication to the Department of Education specifically to the teacher who facilitates learning to integrate and implement learning strategy like teacher-directed play-based learning strategy in teaching shooting skills in basketball and other dual and team sports.

The implementation of teacher-directed play-based learning strategy helps the teacher effectively in facilitating the discussion and to ensure long-term learning retention.

CONCLUSION

The findings revealed that integrating play-based learning strategy is a big help in making the teaching-learning process effective and efficient. The effectiveness of the strategy in free throw helps the students the proper pacing and technique in making a shot. Learning the correct angle in jump shot is a consideration in making a good basket. Knowing the proper position in doing lay-up is one way of a sure basket. And the proper handling in throwing the ball in two-point shot and three-point shot helps to make a bigger chance of making a good basket.

Therefore, it is a clear explanation to reject the null hypothesis because involving the students in the process and letting them have an actual execution of different sports will help them understand and learn the sports. Therefore, the researcher suggested to have improved teaching materials integrating play-based learning strategy on the different types of shooting kills in basketball may be designed.

Recommendation

The following are the recommendations of the researcher to Buanoy National High School teachers and students who can enjoy the effectiveness of this teaching material about improving basketball shooting based on the findings of the study

1. School Administrators. School administrators are encouraged to strengthen support for sports programs and allow teachers to conduct activities that will further develop students' skills and talents in sports.
2. Teachers. Teachers must be the primary implementers of the teacher-directed play-based learning strategy that is convenient and interesting to contemporary learners. The designed teaching material in improving different shooting skills in basketball will serve as an aid to the teacher in the integration of students' learning.
3. Extension of sample. Future studies may be conducted using a larger sample size to further validate the effectiveness of the teacher-directed play-based learning strategy.
4. Extension to other skills. Future researchers may also apply the same strategy to other fundamental basketball skills such as dribbling, passing, running, and jumping to determine its broader instructional effectiveness.

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