The Observational Learning Effect on Skill Acquisition in Football

WenLang Huang¹, ShaoYong Liu^{2*}

Abstract:

The primary goal of this research is to discuss the observational learning effect on skill acquisition in football. A critical research study based on preliminary data is collected through online surveys, questionnaires and observations from football coaches, football participants, and audiences watching football games with passion. The nature of this study is quantitative research. The data was analyzed Descriptive statistics, correlation and regression techniques, One-way ANOVA test, run on SPSS software, and test the hypotheses. According to regression and descriptive statistical analysis, the research findings indicate that some indicators show positive and significant relation and some negative and insignificant related to football players' observational learning. In this research, we examine all players' observational learning on skill acquisition in football. Our findings suggested that observational learning, attention, Retention, production processes, and motivational factors are influence positively and significantly on skill acquisition in football. Results show that these variables influence skill acquisition in football players and enhance performance. This observational learning attracts thousands and millions of people. There is a significant relationship between observational learning and skill acquisition in football.

Keywords: Observational Learning (OL), Attention (A), Retention(R), Production processes (PP), Motivational Factor (MF), Skill acquisition (SA).

Observational learning is the primary stage of learning by "observing" the performance of a task or an action and then replicating the same. It is that method of learning that comprises two things-- observing the action, and modeling one's behavior, attitude, or emotional state according to the action. Observational learning is integral to Bandura's social learning theory (Stone, 2017; Adanali & Mete, 2019). Bandura postulated four essential prerequisites for any kind of observing and modeling: attention, retention, reproduction, and motivation. He rejected the idea that individual model their behavior by copying or imitating a task or action. According to Bandura, individuals only "learn" from a behavior and do not imitate it, but they retain the experience of the task, and then reproduce it. Observational learning is therefore sometimes called "shaping, modeling, and vicarious reinforcement" (Stone, 2017; Afonso & Silva, 2019; An et al., 2019; Akin Arikan, 2019; Bomani et al, 2019).

In the context of the current study, when a football match is being played, younger players observe the game very closely and carefully. They observe how players effectively control the football. They take observation as a fundamental exercise to gain the specific skills of football. Observational learning is thus an essential factor in enhancing the performance of young players (Ford, 2020). Observational learning is a human activity applicable to all aspects of life. All individuals gain knowledge and experience by some kind of observational learning and observation of human behavior. Not only does observational learning help young players to learn about the game, the coaches and the commentators also gain a lot of professional wisdom by observing the game and learn how to analyze these skills (Uehara, 2018). Sports coaches are also responsible for providing to players the feedback and outcomes of a game, including the overall planning about skill acquisition required to play football.

There are many aspects involved in the observational process including individual coaching and football players' instructional behavior. Coaching is the process in which the coach advises the trainees to watch the experienced players and learn about developed techniques, procedures and to rehearse themselves those methods and performance of the game (Simon J. Roberts, 2019). The football players' instructional behavior relates to both playing and watching football. Their playing much depends upon observational learning and getting instructions how genuinely to learn the essentials of a football game.

Looking at the importance of observational learning, a study based on the effects of observational learning on skill acquisition in football was necessary (Law, B., 2017; Adle & Akdemir, 2019; Antoni et al., 2019; Bello & Steyn, 2019; Adell et al., 2019). Skill acquisition is a type of learning level that relates to an individual's capability to perform a particular task. Skills acquisition in football is therefore learning the behavior and skills related to the football game and enhance their individual performance. Skill acquisition varies for each level of expertise: for expert, proficient, competent, advanced beginner, and novice. Each level exemplifies attractive qualities comparative with a competitor's level of fitness or development execution, affected by the extent of common goals. It also depends upon several other factors such as level of direction, quality and repeat of analysis, opportunity to choose, type and repeat of preparation, prologue to various games, organismic factors, and monetary/social limitations (Australian Sports Commission. 2017). The cognitive level of football players is related to their capabilities to repeat a specific performance. The specialists are familiar with the exercises and educating rehearsals that lay the best foundation for young players and increase their cognitive levels (Ford, 2020).

^{1.} Physical education and military training department, Zhejiang Ocean University, Zhoushan 316000, China

^{2.} Faculty Education College, Shaoxing University, Zhejiang, 312000, China

^{*} Corresponding author: ShaoYong Liu, E-mail: shaoyongliu5@gmail.com

In a research study like the current one, it is always the objective to examine players' capacity to guarantee that a proper training or cognitive development can lay a foundation of development abilities. Such training can accomplished through commitment with a scope of assignments, sports, football games, and activities (Kuan, G., 2018). This research's primary aim was to measure the effect of observational learning on the skill acquisition of the football game. The study used different independent and dependent variables, which included observational learning, attention, retention, production process, and motivational factors, and skill acquisition in the football game. This study also attempted a correlational analysis of these variables in order to determine whether football players learn and comprehend the game better if they attended training for skill acquisition in football.

The paper is divided into five sections. The first section introduces the topic. The second section presents a review of the previous related literature. The third section contains the hypotheses, methodology, research objectives, sampling techniques and the theoretical model of the study. The variables of the study are explained in detail in the fourth section with results and discussion. The last section contains the conclusion that summarizes this study.

Review of Literature

Naour (2019) examines a research on superimposing a master's game on the self-game of an individual through 3D virtual applications. This study examined the upper age to which a player can play and his motor abilities. The study makes use of virtual applications to consolidate the movements of expert football players and how their professionalism can be superimposed on young players or how their movements can prove as direct useful inputs for them. This feedback on the execution of each movement was collected though computer graphics using different computing dispersion. Each novice player watched the movements of the expert players very carefully and reproduced them for self-learning. The reproduction of each movement was gradually improved until each player was able to enhance the reproduction of movements.

Arbabi A and Sarabani (2016) used the performance feedback method to examine the skills acquisition. It was a unique research study based on extended services of sports. The performance feedback method involved both selfmodeling with or without feedback and expert modeling with or without feedback, or even sometimes a combination of both modeling methods. The study sampled 60 female volunteers divided into six groups of ten players each. Scott and Fox test was used for data analysis by measuring mean, median, standard deviation, significance, regression analysis, one-way, and two way ANOVA test. Results revealed that combined modeling with feedback scored higher than other methods. The study recommended introducing training for skills acquisition and following a sustainable learning through feedback methods.

Allen A. Champagne (2019) worked on training through information intercession in order to improve playing procedures of the football game and reduce head impacts. This research insisted on giving exposure of safety measures in the football games to the youth. Seventy high school football players were sampled for this study. The experimentation was conducted how to improve and design new intervention methods of block techniques in the football game. Results revealed that training promoted safety measures in the game and taught proper interventions in the field. This indicated a positive effect on intervention methods. The study suggested that safety measures and other intervention techniques can be improved through better coaching practices

Simon Middlemas (2019) investigated how the use of prematch videos can prove to be a good self-modeling intervention. This research study sampled the players of the Elite Youth football team. It examined how the psychological state of players affected the players' performance. a series of test analyses was used, including one-way ANOVA and twoway ANOVA test reliability analysis for measuring the selfmodeling intervention related to youth footballers. The results suggested that VSM intervention could lead to better performance and a big benefit to individual football players as well as groups. Results also showed a positive impact on performance and improvement of self-efficiency. This study supports the use and broadening the scope of video intervention over the traditional approaches for skills acquisition in the football game.

Ebrahim Norovzi (2019) analyzed the usefulness of utilizing the PETTLEP model of imagery for enhancing sports performance in general and the football game in particular. To follow and reproduce action based on Imagery is a key psychological skill, proving the efficacy of enhancing motor skill performance of football players. The PETTLEP model of imagery comprised components including physical movements of the game, tasking, timing, emotions, environmental scenario, players' perspective, and like. This study sampled 45 male adolescent players and gathered data through questionnaires. Research findings suggest that young novice football players who were trained through external PETTLEP imagery were able to control the playing conditions accurately. They also performed most significantly and exhibited a great improvement in their skills improvement. These players thus enhance their gross motor skills acquisition with imagery.

Anna Bodasinska (2019) worked on attentional focus instructions related to football juggling and players' performance. This research was conducted in Poland with its focus on measuring external, internal, and natural focus of attention. Data was collected from twenty-two male players of football and their performance was judged through observation learning. Results show that there is a significant impact of attentional focus instructions on players' football Attentional focus instructions are either performance. External focus of attention (EFA) or internal focus of attention (IFA). Both types emphasize instructional strategies

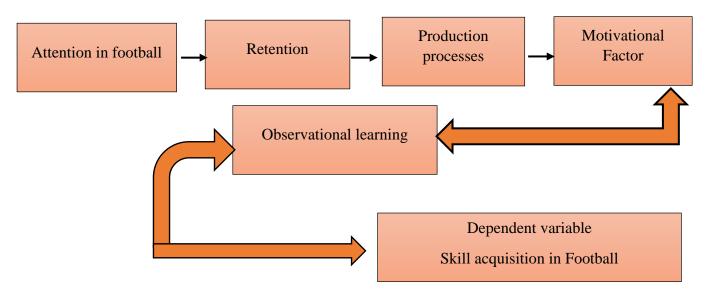


Figure 1. Presents the theoretical model based on the variables of the study

to train players during exercise sessions. Several studies have shown the use of attentional focus instructions to improve motor performance and accomplish force production tasks (Marchant, 2011; Bell, and Hardy, 2009; Castaneda, and Gray, 2007; Freedman et al, 2007; Hutchinson, and Tenenbaum, 2007).

Theoretical Framework Model:

The factors of on attentional focus instructions were quite relevant in this study and were modified as variables of this study. The Skill acquisition was stated as the dependent variable while observational learning, Attention, Retention, production processes, and motivational factors were the independent variables.

Research objectives

The primary objective of this research was to measure the effect of observational learning on skill acquisition in the game of football. Observational learning relates to a football player's behavior and performance during matches. This study examined the relationship between skill acquisition in football and observational learning.

Hypotheses of the study

Based on the previous studies and the theoretical framework, the following hypotheses were stated for this study.

H0= There is no relation between observational learning and skill acquisition in football.

H1= Observational learning significantly associates with skill acquisition.

H2= Attention is significantly related to skill acquisition in football.

H3= Retention is associated with skill acquisition.

H4= Production processes are significantly and positively related to skill acquisition.

H5= Motivation factor is significantly related to skill acquisition in football.

Methodology

This study utilized an observational learning methodology for examining skill acquisition techniques in football. This methodology is particularly useful in knowing about people's physical and emotional qualities that enhance the functionality in the football game. This methodology starts with defining the problem and benefits in many different ways in understanding users' needs. This observational methodology helped the researcher in this study to understand the general requirements of the football players who were the research participants of this study. It helped in discovering the individual user's needs through direct one-on-one collaboration.

Data Sampling

The research data was collected through questionnaires. The sample size was 200 respondents comprising players and coaches of football and game reviewers. The questionnaire comprised 15 questions related to different variables of the study. The data analysis used the quantitative approach and the SPSS software to run separate analyses such as Descriptive statistical analysis, correlations test analysis, linear regression, model summary, one-way ANOVA test analysis, and checking the reliability of research. All these measured the effect of observational learning on skill acquisition in the game of football.

Population

The population of a study comprises the community that is affected by the research results or its findings that are applied through the sample respondents on all variables selected for the research study. This research paper targeted the Chinese football players for examining the effect of observational learning on skill acquisition in football. Participants were chosen based on qualifications and professional experience. The purpose was to study variables like attention, retention, production processes, and observational learning as motivational factors in football.

As said earlier, the primary data was collected from 200

respondents sampled from China's football players. The data

was gathered with the help of a structured questionnaire

comprising 15 closed and open ended questions. The

qualitative data was collected from various documents

available on websites and observation methods. The data

analysis which was mostly quantitative required the SPSS

software to analyze the significance and the reliability among

Primary sources of data

The primary sources of data of this study were the Chinese football players who were the respondents of this study. Data collected directly through primary sources help in maintaining the originality of the study. The primary data also helped to find solutions to all issues and build robust research documentation.

Data collection and Analysis

Table 1.Presents the dependent and independent variables of the study.

SR.	Variables	Notations		
	Dependent Variable			
1.	Skill acquisition in football	SA		
	Independent Variable			
1.	Observational Learning	OB		
2.	Attention	A		
3.	Retention	R		
4.	Production processes PP			
5.	Motivational Factor MF			

variables.

Variables of the study

This dependent variable of the study is skill acquisition in football denoted as SA. There are five independent variables of the study namely observational learning. Attention, Retention, production processes, and motivational factors represented by OL, A, R, PP, and MF respectively.

Independent Variables:

Observational learning

Observational learning is based on different processes (Ford, 2019). One of the processes is the learning process that occurs through observation of things including behavior. It is therefore also often known as a form of social learning. Observational learning is an independent variable of this research. In this research study, observational learning relates to skill acquisition in football.

• Attention

Attention is also an independent variable. It is premised in this study that attention in football game is most important for enhancing skills and abilities. While giving attention to a game, the learner must clarify all essential parts of the models and team structure.

• Retention

Another independent variable of this study is Retention. In Retention, the learner must create a memorable model related to the behavior and store it efficiently for an extended period. Retention is related to the skill acquisition in football because, without Retention, players cannot enhance the activities related to the football match's performance.

• Production processes

Production processes is another independent variable of this study. It entails that a learner must be able to reproduce the team's model behavior. The football team coaches initiate a process of planning and decision-making within the team. Such a production process that involves planning and performing through quick decision making is vital to the success of a team (Field, A., 2018).

Motivational factors

Motivational factors are significant in every field so they are taken as independent variable in this study. A learner is expected to respond to motivational factors in a game as they offer a great reinforcement for a successful performance.

Dependent variable

This research study also framed one dependent variable related to football performance: skills acquisition.

• Skill acquisition

Skill acquisition in football is a type of learning that that determines success in a game. It builds up the capacity in the individual to perform extraordinary tasks. Skills play a critical role in the game of football and they can be acquired through learning and measuring various positioning in the game. With the help of adequate training, players achieve skill acquisition which enables them to perform efficiently (Renshaw, I., & Chow, J. Y., 2018).

Result and discussion

Table 2 describes all variables in mean, minimum value, maximum value, and standard deviation. With the sample size of 200, every question's minimum value was 1, and the maximum value was 5. The mean value represents each variable's average value, and the SD describes the value deviation from the mean.

The table presents descriptive statistics of each variable. The mean value of Attention is 2.59, and its standard deviation value is 1.067.

Similarly, Retention is analyzed with average value of 2.37, and its SD value is 1.183. the Average value of Production processes is 2.19 and its standard deviation value is 1.143. Skill acquisition considers (dependent variable) shows the average value as 2.16, and the standard deviation **Table 2.**

value equal to 0.960. This table represents the description of the overall variables used in the research paper. The maximum values of all dependent and independent variables are the same as 5 and the minimum value is 1.

Analysis of Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Attended football training so	ession 200	1	3	1.32	.639
Rate of overall performar football	nce in200	1	3	2.09	.659
Game supported	200	1	4	2.66	.835
History of hooliganism	200	1	5	3.05	3.184
Media coverage	200	1	3	2.01	.669
Fantasy football	200	1	4	2.18	.794
Observational learning	200	1	5	2.22	1.008
Attention	200	1	5	2.59	1.067
Retention	200	1	5	2.37	1.183
Production processes	200	1	5	2.47	1.143
Motivational	200	1	5	2.19	1.006
Skill acquisition	200	1	5	2.16	.960
Valid N (listwise)	200				

Correlation test Analysis

Correlation coefficient analysis represents the relations between multiple dependent and independent variables. Correlation analysis also represents the direction of the relationship. Some correlation shows adverse effects, while other correlation coefficient shows a positive relationship. The positive correlation indicates that when one variable's value increases, another variable's value also increases. Positive correlation relationships represent the upward slope, and negative associations describe the downward slope.

The table explains the inter correlation among all selected variables. Level 0.0 shows no correlation between variables when the correlation increases from 0.0 to 0.2; then we can say that it represents the very weak correlation between one variable and another variable.

0.6 to 0.8 correlation table how's that strong correlation between the figure and the figure of the model, which increases from 0.8 to 1.0, offers a powerful correlation. At last, when the correlation value is 1.0, then it shows a perfect correlation. These all the inter correlation among variables are shown in the below table.

Table 3. Correlation test analysis

		attended	drate o	of	1						,		
		a	overall		history						produc	ct	
		football	perform	game	of	media		observatio			ion		skill
		training	ance i	_n suppor	thooliga	a covera	gfantasy	nal	attent	i Retent	tiproces	s Motivat	i acquisit
		session	football	ed	nism	e	football	learning	on	on	es	onal	ion
attended	thePearson	1	032	.051	.010	.043	023	.056	075	049	018	080	.021
football	Correlation												
training	Sig. (2-tailed)		.654	.473	.894	.542	.745	.433	.291	.494	.801	.257	.764
session													
rate	ofPearson	032	1	136	050	.033	.036	098	.110	307**	063	.042	103
overall	Correlation												
performan	ce Sig. (2-tailed)	.654		.055	.481	.641	.612	.167	.121	.000	.374	.558	.147
in football	N	200	200	200	200	200	200	200	200	200	200	200	200
game	Pearson	.051	136	1	.101	051	119	.000	.046	.128	.184**	028	017
supported	Correlation												
	Sig. (2-tailed)	.473	.055		.155	.474	.092	.997	.520	.071	.009	.690	.807
history	ofPearson	.010	050	.101	1	.047	.068	.112	.011	.010	.023	.130	.122
hooliganis	m Correlation												

		attended		of	history						produc	:t	
		a football	overall perform	game	of	media		observatio)		ion		skill
		training	ance i	nsuppo			gfantasy	nal		i Reten	tiproces	s Motivati	
			football		nism	e	football		on	on	es	onal	ion
	Sig. (2-tailed)	.894	.481	.155		.508	.339	.113	.883	.891	.752	.066	.085
	N	200	200	200	200	200	200	200	200	200	200	200	200
media coverage	Pearson Correlation	.043	.033	051	.047	1	002	121	.017	.068	.003	.021	126
C	Sig. (2-tailed)	.542	.641	.474	.508		.981	.088	.811	.342	.961	.768	.074
fantasy football	Pearson Correlation	023	.036	119	.068	002	1	207**	049	077	083	.094	151*
	Sig. (2-tailed)	.745	.612	.092	.339	.981		.003	.492	.281	.245	.184	.033
observationa		.056	098	.000	.112	121	207**	1	028	.028	156 [*]	033	.907**
l learning	Correlation Sig. (2-tailed)	.433	.167	.997	.113	.088	.003		.695	.691	.028	.647	.000
Attention	Pearson Correlation	075	.110	.046	.011	.017	049	028	1	.061	154*	.028	076
	Sig. (2-tailed)	.291	.121	.520	.883	.811	.492	.695		.390	.029	.693	.285
Retention	Pearson Correlation	049	307**	.128	.010	.068	077	.028	.061	1	.250**	196**	.043
	Sig. (2-tailed)	.494	.000	.071	.891	.342	.281	.691	.390		.000	.005	.543
production processes	Pearson Correlation	018	063	.184**	.023	.003	083	156 [*]	154*	.250**	1	203**	094
processes	Sig. (2-tailed)	.801	.374	.009	.752	.961	.245	.028	.029	.000		.004	.186
Motivational	l Pearson Correlation	080	.042	028	.130	.021	.094	033	.028	196 [*]	·203**	1	007
	Sig. (2-tailed)	.257	.558	.690	.066	.768	.184	.647	.693	.005	.004		.916
skill acquisition	Pearson Correlation	.021	103	017	.122	126	151*	.907**	076	.043	094	007	1
=	Sig. (2-tailed)	.764	.147	.807	.085	.074	.033	.000	.285	.543	.186	.916	

^{**.} The correlation coefficient test is significant at the 0.01 level of (2-tailed).

Table 3 also describes the Pearson correlation coefficient and the significant value of every variable. Skill acquisition and motivational factors show a robust relation between them at 0.916 considerable level. Similarly, the production processes and skill acquisition in football also show a moderately strong correlation at 18% significant level.

Regression Analysis

Table 4 explains the model summary of regression analysis. This table represents R's value, the figure of R square and Table 4.

The Summary of Model regression Analysis:

illustrates the importance of Adjusted R square and the standard error of the estimation. The model's R-value is 0.910, which shows that 91% significant level of a model is perfect and fit for analysis. It rejected the null hypothesis and accepted the H1, H2, H3, H4, and H5. R square's value is 0.828, which shows 82% significance of the overall linear regression model. The adjusted R square value is 0.823, and the standard error of the estimation value is 0.404.

Model	R-value	Value R - Square	Adjusted R- Square value	Value of Std. an error of the Estimate
1	.910a	.828	.823	.404

^{*.} The correlation coefficient is significant at the 0.05 level of (2-tailed).

Predictors: (Constant), Motivational, attention, observational learning, Retention, production processes

ANOVA Test

Table 5 presents the ANOVA test of the linear regression model. This table explains the regression sum of square value,

Table 5. *ANOVA test*

dfs value, the mean square, F statistic value, and the overall significant value.

N	Model	Sum of the Squares	df	Value of Mean Square	F-statistic	Sig.
1	Regression	151.925	5	30.385	186.362	.000b
	Residual	31.630	194	.163		
	Total	183.555	199			

a. Dependent variable: the skill acquisition in football

The sum of the square value is 151.925 while the mean value is 30%, and the F statistic value is 186.362. Its significance is shown as 0.00, which represents the 100% significant level.

Coefficients

Table 6 explains the linear regression analysis results. The dependent variable is skill acquisition, and there are five independent variables used for analysis including **Table 6.**

observational learning, Attention, Retention, Production processes, and Motivational factors. The linear regression results show the unstandardized beta value, coefficients standard error, standardized coefficients beta, t value, and the significant value representing the relationship between the dependent and independent variables.

Coefficien

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	В	Std. Error	Beta	_	
(Constant)	.143	.160		.891	.374
Observational Learning	.870	.029	.913	30.09	.000
Attention	041	.027	046	-1.50	.135
Retention	.013	.025	.016	.515	.607
Production Processes	.037	.027	.044	1.377	.170
Motivational	.034	.029	.036	1.158	.248

a. The dependent variable is skill acquisition in football.

Observational learning, the independent variable, has a t-statistic value of 30.09. Its considerable value is 0.000, which shows a positive and significant relationship between skill acquisition in football and observational learning. For this analysis, the null hypothesis is rejected and the H1 is accepted. The second independent variable is Attention whose t- statistic value is -1.50, which shows a negative relationship and its significant value is 0.135, which means it is 13% significant. There is a negative but significant relationship between attention and skill acquisition in football.

The third independent variable Retention has t statistic value as 0.515 and its considerable value is 0.60. There is a positive and insignificant relationship between Retention and skill acquisition. The production process is the fourth independent variable. According to the results' analysis, its t statistic value is 1.3777, and the significant value is 0.170, which shows a positive and insignificant relationship between

them. The last independent variable is the motivational factor whose t statistic value is 1.158, and its significant value is 0.248, which shows a positive but insignificant relationship between motivational factors and skill acquisition in football. Thus, the H5 is accepted but the results reject the null hypothesis based on the research relationship among variables.

One-way ANOVA test Analysis:

Table 7 presents one-way ANOVA test analysis between group and within groups of all independent variables. The sum of the square, the value of the average square, the F-statistic value, and the significant probability value are described in this test analysis.

b. Predictors: (value of Constant), Motivational, attention, observational learning, Retention, production processes

Table 7.one-way ANOVA test analysis between and within groups of all independent variables

		Sum of Squares	df	Mean Square	F	Sig.
Observational	Between the Groups	166.598	4	41.649	227.357	.000
Learning	Within the Groups	35.722	195	.183		
	Total	202.320	199			
Attention	Between Groups	20.700	4	5.175	4.906	.001
	Within Groups	205.680	195	1.055		
	Total	226.380	199			
Retention	Between Groups	8.037	4	2.009	1.448	.220
	Within Groups	270.583	195	1.388		
	Total	278.620	199			
Production	Between Groups	8.871	4	2.218	1.723	.146
Processes	Within Groups	250.949	195	1.287		
	Total	259.820	199			
Motivational	Between Groups	19.008	4	4.752	5.081	.001
Factors	Within Groups	182.387	195	.935		
	Total	201.395	199			

Through this test analysis, the relations between independent indicators are seen and understood. It also helps in checking the considerable level of the variables. The motivation factor for instance exists in every field. Without motivation, a football player cannot learn well nor can enhance the performance during the game. According to the ANOVA test, its significant level is 0.001, which means that 100% significant level. Its F statistic value is 5.081 and the mean square value is between the groups is 4.752 and within the group is 0.935. Similarly, production processes are also essential factors in football games, and their skill acquisition, the f statistic value, is 1.723 and 0.146, and the significant level of 14%.

Description:

Table 8 represent that case of processing summary regarding results the total number of valid percentage is 200 and its excluded value is 2 the total number of percentage is 202. The table 8 describe the validity of performance.

Table 9 describes the overall reliability statistic and the case processing summary of comprehensive research.

In this research, the Cronbach's Alpha value is 0.58, which means 58%. The data are collected from 200 respondents and its overall data reliability was 100%, which means that data are reliable for analysis and explains the perfect results related to the dependent and independent variables. The data clearly reveal the effect of observational learning on skill acquisition in the game of football.

Table 8Case of Processing Summary

		N	%
Cases	Valid number and percentage	200	99.0
	Excluded value	2	1.0
	Total percentage	202	100.0

a. case summary of deletion based on all variables in the procedure

Table 9

Reliability Statistics

Value of Cronbach's Alpha	Number of Items
.058	11

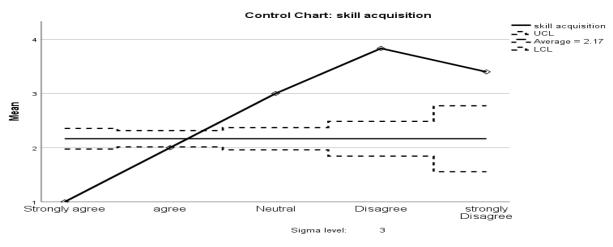


Figure 2. The range of data related to observational learning

In this research, the Cronbach's Alpha value is 0.58, which means 58%. The data are collected from 200 respondents and its overall data reliability was 100%, which means that data are reliable for analysis and explains the perfect results related to the dependent and independent variables. The data clearly reveal the effect of observational learning on skill acquisition in the game of football. Observational learning is the primary independent variable. The control chart (Figure 2) represents the range of data related to observational learning collected from the football

coaches and players. This chart shows that observational learning is affected by skill acquisition in football because most respondents agree or strongly agree.

This chart shows two-lines: x-axis and the y axis. Between the two axes are shown the five stages of responses: Strongly Agree, Agree, Neutral, Disagree, and Strongly Disagree. The chart also explains the sigma 3 and all levels through the dotted lines.

Conclusion

In conclusion, a research study is a journey that a researcher undertakes to accomplish the level of expertise required for master execution by making a strenuous effort with a number of variables. These variables contribute to the establishment of a mechanism wherein a successful skill acquisition can be accomplished (Uehara, 2018; Csonka et al., 2018; Brzica, 2018). In a game of football, coaches must deal with the prerequisites of the game and ensure that each player possesses the game-specific physical capability and the knowledge of correct exercises. A training prologue to games,

sports, and other physical activities is therefore suggested in their initial years. Once the training is complete, a player would only continue practicing movements and doing exercises to achieve the desired capability (Littlewood, Nesti & Luthardt, 2018).

This study examined the effect of observational learning on skill acquisition in the game of football. For this purpose, 200 respondents were sampled from among the Chinese football players and coaches to measure the skill acquisition. Data analysis through different tests and research findings suggest a most significant effect of observational learning on skill acquisition in the game of football. Findings also reveal that the Chinese youth in general and football players in particular are engaged in a higher level of non-active decision-making. This was evident in coaching sessions where it was observed that football players rarely had any activities related to attention and retention of the observational learning.

Moreover, motivational factors are also very important variables for enhancing the skills about movements in the game of football. Results of the study suggest a positive and significant relationship between motivation factors and skill acquisition in football. It is recommended that when required the coach should represent the team and make an ideal decision related to team activities. The coach of the football team must act like a leader and motivate the rest of the team. With these findings, it is hoped that there would be establish a comprehensive relationship between observational learning and skill acquisition in football.

Acknowledgment

The study was supported by "The planning of philosophy and Social Sciences in Zhejiang Province, China (Grant No.20NDJC184YB)".

References

Ford, A. R. (2020). Decision-making practice during coaching sessions in elite youth football across European countries, Science and Medicine in Football, . DOI: 10.1080/24733938.2020.1755051.

- Uehara, L. B. (2018). The role of informal, unstructured practice in developing football expertise: The case of Brazilian Pelada. . *Journal of Expertise* 1, 162-180.
- O'Connor, D., Larkin, P., & Williams, A. M. (2018). Observations of youth football training: How do coaches structure training sessions for player development? DOI: 10.1080/02640414.2016.1277034
- Csonka, A., Bareith, T., Gál, V. A., & Fertő, I. (2018). Spatial Pattern of CAP Measures Promoting Agroforestry in Hungary. AgBioForum, 21(2), 127-134.
- O'Connor, D., Larkin, P., & Williams, A. M. (2017). What learning environments help improve decision-making? Physical Education and Sport Pedagogy, 22, 647-660. DOI: 10.1080/17408989.2017.1294678
- Bomani, M., Fields, Z., & Derera, E. (2019). The Role of Higher Education Institutions in the Development of SMEs in Zimbabwe. International Journal of Business and Management Studies, 11(2), 1-15.
- Akin Arikan, C. (2019). A Comparison of Kernel Equating Methods Based on Neat Design. Eurasian Journal of Educational Research, 82, 27-44.
- Adanali, R., & Mete, A. L. I. M. (2019). The Students' Behaviours at the Instructional Geocaching Applied in Problem-Based Environmental Education. Review of International Geographical Education Online, 9(1), 122-148.
- Brzica, N. (2018). Understanding Contemporary Asymmetric Threats. Croatian International Relations Review, 24(83), 34-51.
- Afonso, A., & Silva, J. (2019). Efectos de la política monetaria de la zona del euro en los sectores institucionales: el caso de Portugal. Cuadernos de Economía, 42(120).
- An, G., Wang, J., Yang, Y., & Du, X. (2019). A study on the effects to students' stem academic achievement with Chinese parents' participative styles in school education. Educational Sciences: Theory & Practice, 19(1).
- Adle, A. A., & Akdemir, Ö. (2019). Achieving Competitive Advantage In Technology Based Industry: How Developing Intellectual Capital Matters. International Journal Of Ebusiness And Egovernment Studies, 11(2), 89-103.
- Antoni, Z. L., Rootman, C., & Struwig, F. W. (2019). The influence of Parental Financial Socialisation Techniques on Student Financial Behaviour. International Journal of Economics and Finance Studies, 11(2), 72-88.
- Adell Carrasco, F. L., Castillo Fernández, I., & Álvarez Solves, O. (2019). Personal and Sport Values, Goal Orientations, and Moral Attitudes in Youth Basketball. Revista de psicología del deporte, 28(3), 0100-105.
- Bello, P. O., & Steyn, J. (2019). Students'perceptions Of The South African Police Service In Durban, South Africa: A Non-Judgmental Assessment. The International Journal of Social Sciences and Humanity Studies, 11(2), 61-85.
- Miller, A., Harvey, S., Morley, D., Nemes, R., Janes, M., & Eather, N. (2017). Exposing athletes to playing form activity: Outcomes of a randomized control trial among community netball teams using a game-centered approach. Journal of Sports Sciences, 35, 1846-1857. doi: 10.1080/02640414.2016.1240371
- Ford, P. R., & O'Connor, D. (2019). Practice and sports activities in the acquisition of anticipation and decision making. In A. M. Williams & R. C. Jackson (Eds.), Anticipation and decision making in sport (pp. 269-285). London, UK: Routledge.
- Field, A. (2018). Discovering statistics using SPSS (5th ed.). London: Sage.
- Ciera Jones, Amanda J. Visek, Mary J. Barron, Mark Hyman & Avinash Chandran (2018): Association between relative age effect and organizational practices of American youth football, Journal of Sports Sciences, DOI: 10.1080/02640414.2018.1546545.
- Cumming, S., Lloyd, R., Oliver, J., Eisenmann, J., & Malina, R. (2017). Biobanking in sport: Applications to competition, talent identification, and strength and conditioning of youth athletes. Strength & Conditioning Journal, 39(2), 34–47. http://dx.doi.org/10.1519/SSC.00000000000000281
- Simon J. Roberts, James R. Rudd & Matthew J. Reeves (2019): Efficacy of using nonlinear pedagogy to support attacking players' individual learning objectives in elite-youth Football: A randomized cross-over trial, Journal of Sports Sciences, DOI: 10.1080/02640414.2019.1609894.
- Renshaw, I., & Chow, J. Y. (2018). A constraints-led approach to sport and physical education pedagogy. Physical Education and Sport Pedagogy. DOI:10.1080/17408989.2018.1552676.
- Coutinho, D., Santos, S., Gonçalves, B., Travassos, B., Wong, D. P., Schöllhorn, W., & Sampaio, J. (2018). The effects of an enrichment training program for youth football attackers. PLoS One, 13(6), e0199008. doi: 10.1371/journal.pone.0199008
- Enright, K., Morton, J., Iga, J., Lothian, D., Roberts, S., & Drust, B. (2018). Reliability of "in-season" fitness assessments in youth elite soccer players: A working model for practitioners and coaches. Science and Medicine in Football, 2(3), 177–183. DOI: 10.1080/24733938.2017.1411603
- Littlewood, M., Nesti, M., & Luthardt, C. (2018). Delivering applied sport psychology support in professional football academies. In W. Gregson & M. Littlewood (Eds.), Science in Soccer: Translating theory into practice (pp. 16–37). London: Bloomsbury Sport.
- Pizarro, A. P., Del Villar, F., Pizarro, D., & Moreno, A. (2018). The impact of nonlinear pedagogy on decision-making and execution in youth soccer players according to game actions. Journal of Human Kinetics, 62(1), 185–198. DOI: 10.1515/hukin-2017-0169
- Roberts, S. J., McRobert, A., Lewis, C., & Reeves, M. J. (2019). Establishing consensus of position-specific predictors for youth soccer in England. Science & Medicine in Football.doi:10.1080/24733938.2019.1581369.

- Tears, C., Chesterton, P.,&Wijnbergen, M.(2018). The elite player performance plan: The impact of a new national youth development strategy on injury characteristics in a premier league football academy. Journal of Sports Sciences, 36(19), 2181–2188. https://doi.org/10.1080/02640414.2018.1443746
- Narelle Eather, Brad Jones, Andrew Miller & Philip J. Morgan (2019): Evaluating the impact of a coach development intervention for improving coaching practices in junior football (soccer): The "MASTER" pilot study, Journal of Sports Sciences, DOI: 10.1080/02640414.2019.1621002.
- Australian Sports Commission. (2017). Teaching sport to children: discussion paper. Author. Canberra. Retrieved from https://www.ausport.gov.au/__data/assets/pdf_file/0010/663256/34747_Teaching_Sport_to_Children_discussion_paper_ Jul17_acc.pd.
- Chew, M. L. E., Kokkonen, M., & Chew, W. C. E. (2017). The use of reflection-card by elite youth basketball players, head coach and team manager: Effects on players' performance and perceptions of users A.U. Koh, Koon Teck. Reflective Practice, 18(3), 291–311. https://doi.org/10.1080/14623943.2016.1267001
- Karagiannis, K., & Pill, S. (2017). A case study exploring coaching practice and coaching perspectives at one soccer (Football) club. Scientific Journal of Education Sports and Health, XVIII(1),
- Kinnerk, P., Harvey, S., MacDonncha, C., & Lyons, M. (2018). A review of the game-based approaches to coaching literature in competitive team sport settings. Quest, 1–18. DOI:10.1080/00336297.2018.1439390.
- Kovacs, L., & Corrie, S. (2017). Building reflective capability to enhance coaching practice. The Coaching Psychologist, 13(1), 4–14.

 Retrieved from https://www.wheel.ie/sites/default/files/Reflective%20Practise% 20Kovac%20June%202017%20ContentServer.pdf
- O'Connor, D., Larkin, P., & Williams, A. M. (2017). What learning environments help improve decision-making? Physical Education and Sport Pedagogy, 22(6), 647–660. https://doi.org/10.1080/17408989.2017.1294678
- Santos S, Jime' Nez S, Sampaio J, Leite N. Effects of the Skills4Genius sports-based training program in creative behavior. PLOS One. 2017; 12(2). https://doi.org/10.1371/journal.pone.0172520 PMID: 28231260.
- Naidu SA, Fanchini M, Cox A, Smeaton J, Hopkins WG, Serpiello FR. The validity of the Session Rating of Perceived Exertion Assessed via the CR100 Scale to Track Internal Load in Elite Youth Football Players. Int J Sports Physiol Perform. 2019; 14(3):403–6. Epub 2018/09/12. https://doi.org/10.1123/ijspp.20180432 PMID: 30204528.
- Bozkurt, S., & Kucuk, V. (2018). Comparing of Technical Skills of Young Football Players According to Preferred Foot. International Journal of Human Movement and Sports Sciences, 6(1), 19-22. DOI:10.13189/saj.2018.060103.
- Anuar, N., Williams, S.E.,&Cumming, J.(2017).Do the physical and environment Pettlep elements predicts portimagery ability? European JournalofSportScience,17(10),1319–1327. doi: 10.1080/17461391.2017.1377290.
- Kuan, G., Morris, T., Kueh, Y.C.,&Terry, PC (2018). Effects of relaxing and arousing music during imagery training on dart throwing performance, physiological arousal indices, and competitive state anxiety. Frontiers in Psychology, 9,14. https://doi.org/10.3389/fpsyg.2018.00014
- Schmidt,R.A.,Lee,T.,Winstein,C.,Wulf,G.,&Zelaznik,H.(2018).Motor control and learning,6e.USA:Humankinetics.
- Simon Middlemas & Chris Harwood (2019): A Pre-match Video SelfModeling Intervention in Elite Youth Football, Journal of Applied Sport Psychology, DOI: 10.1080/10413200.2019.1590481.
- Law, B., Post, P., & McCullagh, P. (2017). Modeling in Sport and Performance. In Oxford Research Encyclopedia of Psychology. http://psychology.oxfordre.com. Retrieved on 20 November 2018. DOI: 10.1093/acrefore/9780190236557.013.159.
- Rymal, A. M., & Ste-Marie, D. M. (2017). Imagery ability moderates the effectiveness of video self-modeling on gymnastics performance. Journal of Applied Sport Psychology, 29(3), 304-322. DOI:10.1123/jmld.2018-0015.
- Shen, S., and Chi, M. (2017). "Clustering student sequential trajectories using dynamic time warping," in Proceedings of the 10th International Conference on Educational Data Mining, 266–271. Available online at https://educational data mining.org/EDM2017/proc_files/papers/paper_94.pdf.
- Stone, Sherril m (2017) Observational learning. *Encyclopædia Britannica* https://www.britannica.com/science/observational-learning. Accessed on December 04, 2020.
- David C. Marchant (2011) Attentional focusing instructions and force production Front. Psychol., 26 January 2011 https://doi.org/10.3389/fpsyg.2010.00210
- Bell, J. J., and Hardy, J. (2009). Effects of attentional focus on skilled performance in golf. J. Appl. Sport Psychol. 21, 163–177. DOI: 10.1080/10413200902795323
- Castaneda, B., and Gray, R. (2007). Effects of focus of attention on baseball batting performance in players of differing skill levels. J. Sport Exerc. Psychol. 29, 60–77. DOI: 10.1123/jsep.29.1.60
- Freedman, S. E., Maas, E., Caligiuri, M. P., Wulf, G., and Robin, D. A. (2007). Internal vs. external: oral-motor performance as a function of attentional focus. J. Speech Lang. Hear. Res. 50, 131–136. doi: 10.1044/1092-4388(2007/011).
- Hutchinson, J. C., and Tenenbaum, G. (2007). Attention focus during physical effort: the mediating role of task intensity. Psychol. Sport Exerc. 8, 233–245. https://doi.org/10.1016/j.psychsport.2006.03.006