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Challenging students' performance through Practical Skills Assessment in Elective Football coaching in Hawassa University: An action research study

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ABSTRACT

Complaints from the university students enrolled in sport science fields or their hiring employers have been heard to practical assessment in sports science. On top of that, long years ofexperience in teaching taught us the problem of practical skills assessment has existed in sports science. This problem emanates primarily from the activities of gross motor parts of the organism while doing sport; leading to a highly subjective assessment. Furthermore, the absences of safe and secured facilities for practice, large class sizes, as well as the absence of video materials, to track students' progress, are among the other factors. This study used the process of action research: identify-plan-act-reflect, in order to improve 3rd year, sports science students' practical assessment skills in Elective football coaching at Hawassa University. The study participants included 25 randomly selected students from a population of 50 students. Football's basic skill first was taught theoretically and practically for the betterment of easy to conduct assessment skills. To do so, the researcher allotted three sessions in consecutive days; after conducting the pre-test assessment. The study has shown that there was a statistically significant increase of difficulty dribbling and trapping the ball from pre-test (M= 1.24, SD= .43) to post-test (M=1.64, SD=.49), t(24)= -4, P<0.005). The eta squared statistics (.4) indicated a large effect size. There was statistically significance increase of control ball with both feet from pre-test (M=2.44, SD= .5) to post-test (M=3.72, SD= .45), t(24)= -8.6, P<0.005). The eta squared statistics (.75) indicated a large effect size. There was statistically significance increase of ability to dribble either direction with token pressure from pre-test (M=2.56, SD= .5) to post-test (M=4.76, SD= .43), t(24)= -17, P<0.005). The eta squared statistics (.92) indicated a large effect size. Therefore, from the five parameters of football skill practical assessments, all skill parameters are significant to apply in assessing the psychomotor domain of football in the Elective coaching course at Hawassa University. The findings revealed that, participation of students in educational assessments are resulted an alteration of training performance in academics.

INTRODUCTION

Professional skills in sport can be developed through a variety of ways, initiation, qualification, training, specialization, and re-training (Gloriaa et al., 2015).This can be realized with suitable assessment among others;

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Popa et al. (2009) figure out that, formative assessment is powerful effect on stimulate learning and boost up instructional-educational processes. Unlike the theoretical assessment in sport science, practical skillassessment should be presented via explaining the skills prior to the formal assessment and even correcting the errors of the performer. Because football skills preferred gross motor action, involvement of major large muscle groups: quadriceps femoris and calf muscles. Unlike fine motor skills, the involvement of small muscle groups, which enable us to write on the paper and typing a computer. The actions offered by our feet are not accurate. Based on Popa et al. (2009) observation, they claimed that formative comparatively from others is very powerful and effective in educational-instructional processes. Since assessment is perceived as manipulation of instructional-processes, within the scheme professional values are structured, shaping the assessment ability is a necessity to check the work of training and for future teachers, to be stacked with the archive.

Based on Gloriaa et al. (2015) discussed that students are expected to learn verbal and communication skills while they are learning, simultaneously they should be brought with the ability of assessment empirically, and it can empower them to use in their career profession. Allowing permanent involvement of the student’s, in the ability of formative assessment skill, bring improvement in their educational objective of the pre-determined outlines. As per the educational formative objective and the instruction, content constitutes the training of assessment skills on the teacher's course description.

In Ethiopia, Dessalegn (2012) tried to bring the experience of teachers in practical assessment skills studied in Awi Zone, though the designed questionnaire is very vague and difficult to accept by the readers. The same author found out from Awi Zone's physical education teachers, 43.75% of sport science teachers do not incorporate practical assessment into their lessons, while 56.25% of teachers bring practical assessment every day. The data is not consistent within the study; still, the paradox is going on because of the experience of higher institution sport science teachers. Enormous studies have been conducted in theoretical assessment of sport science skills, but limitations of studies are shown in the area of practical assessment skills.

The instructional-educational process, as Gloriaa et al. (2015)notedin higher education, various competences are developed. Among others, Praxeological competences are offered in the sport skill pedagogy, training of assessment competence and capacity for the evaluation of practical skills. Furthermore, students are permanently considering in the execution of assessment, detecting errors of fellow students and also grading performance. The ideology brought more freedom for the learner, being active in the decision process also.

The current research is embedded theoretically to critical action research; problem is identified in the teachers’ work area. Action research should be conducted to solve the problem identified via presenting an action plan as remedy. Further this thought of action research justified that, philosophically the teachers believe that the normal research is doing on the teacherrather for them (Mills, 2014). For instance, students’ are challenged with time

consuming problem solving methods in mathematics, to overcome this problem the mathematics teacher can present a new problem solving strategy. So that, the teacher researcher can writes up the influence of the new intervention. Therefore, the purpose of this action research was to improve the subjective nature of practical assessment to make objective in Hawassa University 3rd year sports science student's practical assessment skills in Elective football coaching.

Initial reflection

Based on Gamachis et al. (2021) justified that, teachers are working in a more controlled manner, promising to the country's educational system. The educational policy approach is rigid and inflexible to induce implementation of authentic pedagogical texts. In their study, they have objectively concluded that, practitioner inquiry or action research can present an opportunity to present an immediate solution concerning the problem of teaching learning process. Teachers in the school curriculum are mechanized into traditional teaching strategy, incubating a dictatorial socio-educational system in the country. However, instructors in Ethiopian public higher institution are working in a more free will environment; they can construct and implement authentic pedagogical texts. From the experience, instructors in sport science have limited their action to conduct an action research to provide a solution for the subjective nature of the courses. They are accustomed with the old saying, assessing the psychomotor domain of sport skills are subjective, traditionally customized themselves. Even a blurred vision exists, to differentiate the normal research from the action research. The essence of normal research is simply conducting, administering a questionnaire on the teacher on the other side, the action research bring a solution for the teacher. It is true that, the magnitude and strength of the problemis known by the researcher; prior to conduct the action plan for implementation.

In teaching sport science, teachers are overwhelmed by practical skill assessments, because of the subjective nature of the course. As well as the type of serial skills, in which the students are expected to execute different connected skills, this needs the involvement of gross motor skill, at a particular period. Movements demanding the involvement of large muscle groups are not accurate; it needs more repetition to perceptualize. Thus, the skill should make a vicious circle until it becomes internalize and it may demand the intelligence of the students while the skill is conducted randomly.

However, it does not mean that there is no problem in the theoretical class but the practice which is done in the field is more exaggerated, rate of skill assessment. The current sport science courses are classified into indoor and outdoor course delivery. In the first case, the students who are taught indoor or in the gymnasium may not be affected by weather conditions like sun, rain, and windy environment. But outdoor sports activities like football are not conducting in the above environment. So that the level of judgments will be affected because of giving a test at one shot as well as tiredness of both teachers and students, which leads the assessment too much subjective. In this regard, practical skill assessment should be taught first as well as the practicing the assessment should be given

before the actual assessment is started for the improvement of student's performance.

The objective of incorporating "Elective sport" into undergraduate sport science curriculum by 2012 is to differentiate the existing sport based on student's area of interest and alleviating the scarcity of coaches in the country. Giving the above fact, majority of graduates in the area of football coaching are complaint on their performance and within a decade action research has not conducted to maximize the objectivity in football assessment.

In the light of the above fact, the current researcher tried to induce intervention from the traditional teaching way, because action research in nature oblige the classroom teacher to practice out of the usual locus of control. Thus, beyond the usual custom of student's skill assessment, this research work presented to challenge their performance other than the traditional approach of footballskill assessment.

The study was conducted with the objective of minimizing the bias of practical skill assessment after they have been thought by the instructor. More specifically, to reduce the subjectivity of assessment in Hawassa University 3rd year sports science student's practical assessment skills in Elective football coaching and also enhance the quality of practical skills assessment for the student concerning the mechanics of each technique in football.

MATERIALS AND METHODS

The instrument is developed from with the assumption that, 80% of the goal score is scored from three consecutive passes in football matches (Reilly and Williams, 2003*;* Reep and Benjamin, 1968). The empirical evidence of the previous match analysis conducted by the above authors are agreed and presented for football coaching specialization graduating class of 2019 in Hawassa University. In this regard, the current teacher researcher is sliced the football skills into five independent skills in a stations where the student coaches are going to be assessed. They are namely, (1) has difficulty dribbling and trapping ball (2) Possesses some ball skills but they are very limited (3) Can control ball with dominant foot only (4) Can control ball with both feet (5) Has ability to dribble either direction with token pressure (6). For instance, the first football skill is "has difficulty dribbling and trapping ball", while the teacher researcher is administering the skill performed by student coaches. Every skills has got measured onto three levels, accurate, partial and inaccurate, it can simplify the rating process at time of football skill assessment. The study preferred a cross-sectional research design, teaching and demonstrating five football skills, they are utilized for a formal assessment.

The study was conducted at Hawassa University. The study participants included 3rd-year sport science students; from the problem which has been detected on practical skill assessment in Elective football coaching. The study participants include 25 (twenty-five) randomly selected student participants from a total of 50 (fifty) students. The study used: pre-test and post-test measures, adopting from football skill assessment for individual skills.

The study followed four consecutive stages to detect the problem and improving stages namely: (a) initial reflection phase- based on the subject teacher and head department, the problem was identified in practical skill

assessment from the experience of teaching-learning, (b) Intervention action plan phase- based on the reflection upon the practical skill assessment from the subject teacher with the head department, and also pre-test will be administered on the respondents, (c) Implementation and data collection phase- conducted by higher diploma program **(**HDP**)** candidate and followed by post-test were administered (d) analysis of data and reflection phase- includes discussion and comparison of the pre and post-test findings and reflections on the recommended action. The pre-test has 6 components.

RESULTS

The results of individual assessment for team play is summed in table 1. The skill is provided and prepared with seven variables (explaining football). The weights are allotted based on the difficulty level of the skill assessment. They are divided by five and it can better explain student's assessment from the point of Accurate, partial accuracy, and inaccuracy; 6 & 19, 16 & 9; respectively. This explains, according to the result of pre-test results, they are less accurate while they are executing on difficulty dribbling and trapping the ball. At the time of the post-test, the result is reverted and shown improvement in their football skill delivery to conduct the assessment (Table 1).

Table 1: Summary of the results of students' measures on pre-and post-tests

Components of Individual football skills	Parameters of assessment	Pre - measurement	Post measurement
Difficulty dribbling and trapping the ball	Accurate. (2)	6	16
	Partial (1)	19	6
	Inaccurate	-	-
Possesses some ball skills but they are very limited	Accurate (3)	-	-
	Partial (2)	8	18
	Inaccurate(1)	17	7
Control ball with the dominant foot only	Accurate (4)	-	-
	Partial	19	19
	Inaccurate (2)	6	6
Control ball with both feet	Accurate (5)	-	-
	Partial (3)	11	18
	Min. (2)	14	7
Ability to dribble either direction with token pressure	Accurate (6)	-	-
	Partial (3)	14	19
	Inaccurate (2)	11	6

NB: The numbers in brackets (2, 3, 4, 5 & 6) are allotted to accurate skill executions based on the difficulty skill levels presented in each football components. For the partial and inaccurate measurement less number was given.

The test consists of 5 football skills, which gathers information about the basics of football. Namely: difficulty dribbling and trapping the ball, possesses limited ball skills, can control the ball with the dominantfoot only, Can control the ball with both feet and can dribble either direction with token pressure, the weight of each skill are, 2, 3, 4, 5 & 6; consecutively applied on the students. The assessment of football basic skill items was analyzed by dividing the items out of 5 (five).

As summarized on table 1, individual football skills on difficulty dribbling and trapping the ball before (pre) and after (post)-test/measurement were 6 & 19, 16 & 9; respectively. This means that the value shown a change in numerical value. Similarly, possesses some ball skills but they are very limited, were measured to be 8 & 17, and 18 & 7; at pre and post-test respectively. Control ball with the dominant foot only was measured on pre and post-test, from the point of Accurate, partial accuracy, and inaccuracy; 19 & 6, 19 & 6, respectively. Control ball with both feet was measured on pre and post-test, from the point of Accurate, partial accuracy, and inaccuracy; 11 & 14, 18 & 7, respectively. ability to dribble either direction with token pressure were measured on pre and post-test, from the point of Accurate, partial accuracy and inaccuracy; 14 & 11, 19 & 6, respectively.

Action and implementation plan

Based on the initial reflection phase, HDP candidate designed an intervention to teach a soccer skill for individual assessment, before the assessment they were coached concerning the implementation of the test.

For the betterment of the practical assessment, first, they have introduced the concept of peculiar football skills to be examined in the classroom. Then they were thought the five soccer skills of the assessment and they will be informed for the practical assessment.

In elective football coaching mainly instructors are using to evaluate the capacity of students in the following type of practical skills: (a) difficulty in dribbling and trapping ball, (b) possesses on some ball skills but they are very limited, (c) can control the ball with the dominant foot only, (d) can control the ball with both feet and (e) ability to dribble either direction with token pressure.

The first practical skill which is: difficulty dribbling and trapping ball, before the execution of the given skill, will be told how to execute. Because in sport there are mechanics on how to manipulate the skill; when they are displaying the skill their heads need to be down and the distance between the feet and the ball, not more than 15 inches. The second football skill is: the ball should be retained via his position and he should protect the ball from the opponents. The third football skill should be: do the students are controlling the ball with the dominant foot only. Fourthly, do the students use both feet while he is applying the technique. Lastly, students can dribble the ball in either direction with token pressure.

Findings

In this section, the comparison of students' test scores is presented based on the participants' pre and post results. Figure 1 shows the comparison of pre and post-test for each parametermeasured. Either the intervention brought a change also has been assessed, only three a consecutive day of practical training was given for the third-year elective football coaching students.

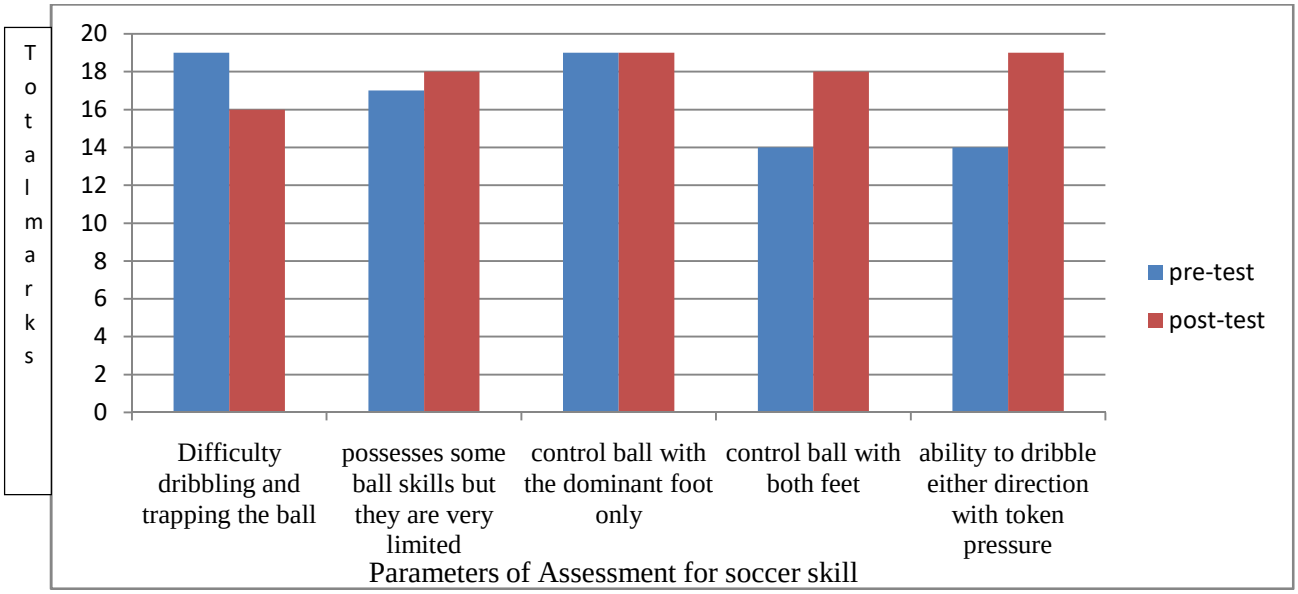

Figure 1: Comparison of pre & post test scores

As per the subjectivity of practical assessment, it is the big deal in the academic institutions, however the time for intervention unveil some alteration concerning the psychomotor domains of the subjects. In the process of assessment, students were given five independent but interrelated pieces of soccer skills without demonstration of model or instructors. The subjects were faced challenges to execute and emanate towards the external stimuli, but with the assistance of their classmates they have invariably responded to the test. Apparently discussing, scores were taken that is the highest peak among the comparators of accurate, partial accurate and inaccurate. This is because of other factors like the length of engagement in practicing the skill of soccer, method of teaching and limitation of materials. In the time of pre-test, students have known the way of execution but unable to associate with the specific type of soccer skills randomly. One of the parameter to assess students were difficulty dribbling and trapping the ball, the pre-test score is maximum, it explicit that the intervention does not show change from the result of post-test. In the soccer skill, dribbling can help us to overcome our opponents even with the maximum number of players are aggregated in the specific area.

However, with the three independent assessors (like, possesses some ball skills but they are limited, control ball with both feet, and ability to dribble either direction with token pressure), the intervention has able to embark some amount of changes in the soccer assessment skills.

In the final event that is happened in a steady state is the control ball with the dominant ball only, result is not ubiquitous unlike to the three changed skill of soccer.

Table 2: Summary results of the paired sample t-tests across the 5 measures

	Components of Individual football skills		**Mean**	**N**	SD	**GM**	**t test**	**P value**
Pair 1	Difficulty dribbling and trapping the ball	Pre	1.24	25	0.436	-0.4	-4*	0.001
		Post	1.64	25	0.490			
Pair 2	possesses some ball skills but they are very limited	Pre	1.32	25	0.476	-0.4	-2.8*	0.009
		Post	1.72	25	0.458			
Pair 3	control ball with the dominant foot only	Pre	2.36	25	0.490	-0.4	-3*	0.005
		Post	2.76	25	0.436			
Pair 4	control ball with both feet	Pre	2.44	25	0.507	-1.28		
		Post	3.72	25	0.458		-8.6*	0.000
Pair 5	ability to dribble either direction with token pressure	Pre	2.56	25	0.507	-2.2	-17*	0.000
		Post	4.76	25	0.436			

* significant ($p<0.05$), GM= grand mean, SD= standard deviation

In general the intervention has resulted change in the academic assessment of students concerning soccer skill assessment. To realize and grasp change, there must be a demonstration before execution of the skill. Teachers found in Ethiopian public higher institutions, of sport science department can devote ample time for practice and active demonstration can be executed by the instructor for the betterment of assessment.

A paired samples t-test was conducted to evaluate the impact of assessment on student's score in football skill assessment. There was statistically significance increase of difficulty dribbling and trapping the ball from pre-test to post test ($p<0.005$). The eta squared statistics (0.4) indicated a large effect size.

There was statistically significance increase of possesses some ball skills but they are very limited from pre-test to post test ($p<0.009$). There was statistically significance increase of control ball with the dominant foot only from pre-test to post test ($p<0.005$).

There were also statistically significance difference in the other components of individual football skills. There was an increase of control ball with both feet from pre-test to post test

($p<0.005$). The eta squared statistics (0.75) indicated a large effect size. There was also statistically significance increase of ability to dribble either direction with token pressure from pre-test to post test ($p<0.005$). The eta squared statistics (0.92) indicated a large effect size.

DISCUSSION AND CONCLUSION

According to Mills (2014), a written account concerning the classroom life experience is important; it can be a record for professional and personal use. In this regard, the researcher has not found resemble literatures which can be used as a stepping board to show the agreement and disagreement of the action research.

The finding of the study is supported by Fitts' Stage Theory of Motor Learning, developed by different authors (Schmidt and Lee, 2005, Abernethy, 2001; Anderson, 1982). As noted by Fitts' model, there are three stages learners can go through, cognitive, associative stage and autonomous stage. In the cognitive stage, elective students should be taught about the rules and verbal instructions of the selected football skills. The session can provide an opportunity to the learners or they are free will to practice with different errors. In the second stage, candidates can easily associate with every pattern of skill and be consistent. Finally, more practice is presented for the learner can maximize their performance and execute with minimal error.

One of the main challenges in sports science coaching practice is how to evaluate the practical performance of students, owing to the absence of standard parameter used for assigning grades. Football instructors are using different approach and rating system to measure the performance of football coaches.

In this regard, this action research identified a problem in elective football coaching course, designed an intervention of teaching on the given assessment contents in practical sessions; they have provided with how the content measured and also the pattern of each skill practiced. Students had open discussion opportunities to deal with the psychomotor domain of the subject; practiced prior to the main assessment sessions.

A few elite footballers' has the capability to play in both feet, but in executing an assessment there must be teaching the technique of football and students should be informed. The experience is different in assessing the theoretical domain of football amid fear of mark inflation. Thus, in practical assessment, the pattern of test should be provided to the student's. In this way, the subjectivity of objectivity can be decreased and customer's satisfaction can be achieved.

In general, the study revealed that there is a significance difference in all variables of football skill practical assessment. In football learning, dribbling is difficult to catch easily from the coaches or trainers even at the time of assessment. But if dribbling with trapping the ball may be taught prior to the actual assessment, the performance of elective students can be escalated. During the attachment phase, they have shown progress in their individual football skills practice in addition to the direct measurement of their performance. Based on the findings, the researcher concludes that, students' need to be learned the contents and assessments both theoretically and practically.

Study Limitations

The study has limitation pertaining the limited number of variables, area coverage and sample size (number of participant, representativeness, year of graduates). Moreover, instead of approaching the most fragmented skill individual assessment, an integrated assessment developed by team of professionals may need further investigation.

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