

An Evaluation of Football Coaches and Players via Football Work-Based Learning [F-WBL] Sport Science Approach

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Abstract---*This study aims to measure and evaluate the technical and understanding of coaches via Football Work-Based Learning (F-WBL) module [ISBN 978-967-0783-33-8] pilot test. The process involved three phases: Phase 1, the information of the F-WBL concept and items; Phase 2, the practical's based on technics at stage 1 of F-WBL Module; and Phase 3, the actual study and validation of the Effective of understanding of coaches (14 coaches) and football players (17 players) by entering a test at the end of the process. The Competencies Based Analysis that focus on 2 main domains that includes; understanding (cognitive) of F-WBL technics & the Effectiveness (competencies) of F-WBL technics. The data's shown that for the domain understanding of the process F-WBL for coaches at 100%, but for domain understanding of the process F-WBL for players at 53%. This data's means that all coaches entering the course understand the concept but almost of players still not fix to full fill the maximum need of F-WBL trainers. Almost players should enter the next course to ensure they will meet the maximum standard of trainer for F-WBL need. This about quality of football player producing, so all players should more practice to ensure all technical knowledge at stage 1 they can achieve to meet the maximum quality standard of F-WBL competency needs. This F-WBL development based on understanding and competency assessment looks full fill the needs of football coaches and football player development in Malaysia. Hopefully this F-WBL module will works as new sport science instrument for football player development.*

Keywords--- "Football Work Based Learning [F-WBL], Football Sport Science, Technical Vocational Education & Training (TVET), Outcome Based Education (OBE), Competency Based Assessment (CBA), Measurement & Evaluation, Performance, Skills".

I. INTRODUCTION

Outcome Based Education (OBE) is a part of student outcome based with future learning strategy for real human skills development and producing real worker or others human development such development of real football player [7]. While OBE was implemented at Politeknik SeberangPerai, Penang, Malaysia, the dual combination of football learning practices with work based learning (WBL) process was piloting to measure the ability of coaches and football player among young students to control interest, attitude, and effort toward a task or a goal in real football player development [5], [4]. The OBE become new alternative education on future TVET in sport science

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practices such curriculum of Football Work Based learning (F-WBL) [7], [8]. This F-WBL is often associated with expert content development to full fill the need of coaches and young football player taking an active part in learning & football skills domains development such cognitive, psychomotor, and the affective of football technics [2], [4]. The WBL also match with the domains requires includes (cognitively, motivationally, and behaviorally) in their own sport science learning activities and also controlling their own learning experiences with higher internal motivation and produce outcome based of high value of innovative football player producing [1], [3]. The research on F-WBL will match with the need of TVET development for football sport science curriculum needs. Its cover the TVET competencies systematics evaluation process through the module application on the fields to the respondents.

II. METHODOLOGY

This F-WBL pilot project was involved of 31 samples from the football coaches and football young players, which are the avenue of the piloting at Politeknik SeberangPrai (PSP), Penang [5]. fourteen (14) respondents were from group (A) of coaches from football academies around Penang whilst the rest were group (B) of football players from local secondary schools around Penang. The process of data collection includes three (3) phases: -

Phase 1: Teaching methods (Understanding the concept and process of F-WBL)

The two (2) group players were briefed about the F-WBL process and activities that all respondent should complete within three (3) days' workshop. In this case, module developer and expert content on F-WBL & CBA evaluation will describe deeply the OBE concept for expert football players producing method & workshop schedule as shown in Table 1.

Phase 2: F-WBL Practical & Training (Formative Assessment methods)

A instrument consisting of five Competencies Based Assessment (CBA) items, based on two domains of OBE learning outcomes (Cognitive Domain: CD & Psychomotor Domain: PD) and five (charts) subscales of Competency Based Assessment (CBA) includes (1.Cognitive evaluations, 2. Six (6) domains measurements, 3.Comparison of Toe & Lace domains, 4.Comparison inside & outside domains and 5.Comparison sole & Pull Push domains) was designed to comparison data on football coaches & football players self-achievement in 3 days activities concerning by F-WBL implementation.

Phase 3: F-WBL Data Analysis (Practical & Knowledge test)

A five score point scale (1 = strongly bad, 2 = low skill, 3 = good, 4 = very good, and 5 = excellent) was used to measure respondents in overall process of CBA evaluation for F-WBL. This assessment required to state the achievement which level should match with competency (technical & vocational) football skills and knowledge needs. The three (3) days of time frame between F-WBL process and CBA measurement & evaluation works as OBE implementation [7].

Table 1: Schedule of F-WBL Implementation and Evaluation Process

Workshop Schedule	Working Schedule
1st Day: F-WBL Teaching methods & Understanding the concept and process	Briefing & Determination of F-WBL Process includes the model, theory, contents technics and competencies evaluation process.
2nd Day : F-WBL Practical & Training	Demonstration of F-WBL technics and apply in real human football development
3rd Day : F-WBL Practical & Knowledge Test	An evaluation of F-WBL competencies technics & knowledge skills test

III. DATA'S ANALYSIS

The overall percentage results for coaches and players after F-WBL (ToT) program shown as chart below:



Chart 1: F-WBL understanding for coaches

(Technical Knowledge)

Bar Chart 1 shown the data percentage (%) of understanding for coaches after Training of Trainers (ToT) for F-WBL methods. There are the measurement scores of overall understanding of F-WBL process and techniques for 14 coaches. The data shown all coaches have achieved above 20 marks that required to full fill the need of minimum marks of F-WBL evaluation process. 2 coaches have maximum marks at score 35 and 40 marks, and 2 coaches achieve above of 30 scores marks. The rest of them (10 coaches) at the range of score marks 20-30 marks. The percentage of understanding of F-WBL concept & process at above 20 scores marks for coaches overall at 100% with above 20 marks score need.

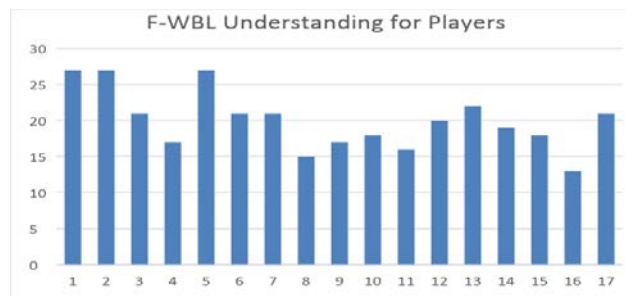


Chart 2: F-WBL understanding for players
 (Technical Knowledge)

The above data on bar Chart 2 shown the percentage (%) of understanding for players after Training of Trainers (ToT) of F-WBL. There is the measurement of understanding of F-WBL process and techniques for 17 players. The data shown all players have achieved above 20 marks that required to full fill the need of minimum marks of F-WBL evaluation process. Only 9 players have maximum marks at score 20 and 28 marks, and the rest of them (8 players) at the range of score marks below of 20 marks that mean all of them not meet the quality standard of F-WBL technical knowledge needs. The percentage of understanding of F-WBL for above 20 score marks for 9 players at almost around 52.94 % @ 53%.

A. Data's percentages and spider measurement of respondents after F-WBL activities shown as chart below

Data's analysis for coaches

Data analysis for coaches after Training of Trainers (ToT) for F-WBL methods. The following are two (2) competency measurement fractions that include measurement for the cognitive domain and the measurement of competence of F-WBL based techniques for 14 coaches. The data analysis below is to mention on cognitive domain for coaches:

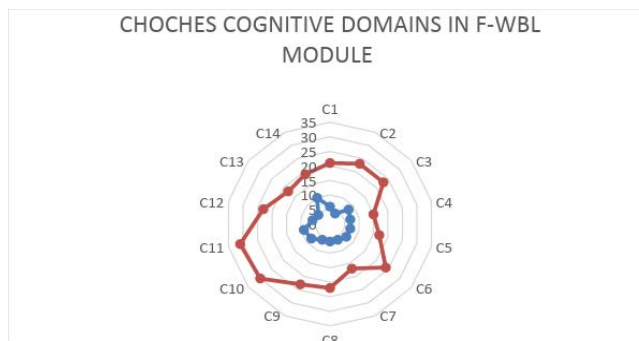


Chart 3: Data analysis for items Technics & Effectives
 (Cognitive Domains for Coaches)

The data in Chart 3 shows the level of understanding of the instructors on the understanding of the concept of football work-based in sports science-based on TVET at the overall level (score 18-30). This shows that the trainers' understanding is at a high level because the highest score is required at the score of 30. A total of 11 out of 14 (79%)

coaches earn a score of over 20 points of F-WBL concept understanding. While 3 out of 14 (21%) coaches score a score of less than 20 points, the points earned are over 15 score scores in good standing.

Below, data analysis for competencies domains for coaches:

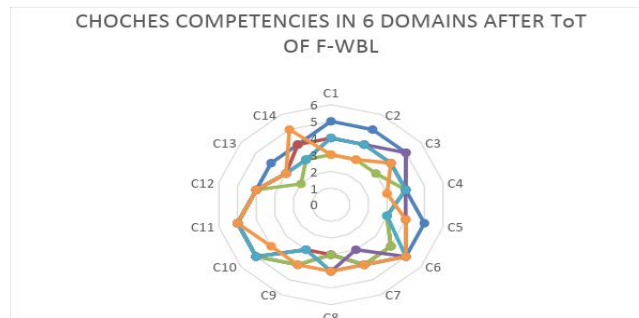


Chart 4: Spider chart for six (6) domains of competencies for coaches

Below the table of legend for each series for competencies has been measured:

Table 2: Legend for series of competencies for coaches

Series 1	Series 2	Series 3	Series 4	Series 5	Series 6
Toe	Lace	Inside Foot	Outside foot	Sole	Pull Push

Based on Charts 4 with reference to Table 2 for the series of competencies, there are six (6) competing domains that have been in for the whole of the trainers i.e. the Toe, Lace, inside foot, outside foot, sole and pull push techniques. Of the 14 coaches one (C11) had the highest score for all 6 domains being measured and the coach (C10) ranked second with the highest score and second highest for the technical domain measured, while one (C12) earned the second highest score for all domains measured. For 10 coaches, all of them are in a good score ranking with a coach (C13) score scores at 2 points for push pull domains. This shows that all trainers have a good competence score, and it is best to educate trainers with the F-WBL techniques that have been learned. The control of all six (6) of these techniques is important in order that the coaches will be able to correctly trained the F-WBL's basic techniques to their trainers later.



Chart 5: Spider chart for domains Toe (series 1) and Lace (Series 2)

Based on the Chart 5 of the above 2 competencies for the comparison of the skills of the trainers for the development of the toe competency and lace competency, the average indicates the mastery of the low lace technique compared to the skills of the trainer in mastering the toe technique. A total of 5 coaches (C1, C2, C3, C5 & C6) Successfully earned the highest score for mastery technique mastery. While the two (C10 & C11) coaches can fully control the lace technique. For the comparison of score scores for score domain toe the score is in the range 3 to 5, and only one person (C8) gets score 3, while for the lace domain, 4 coaches (C5, C8, C9, C13) eyes. This shows that the domain of the lace technique is a little difficult to master with the toe technical domain that has been conducted assessment.

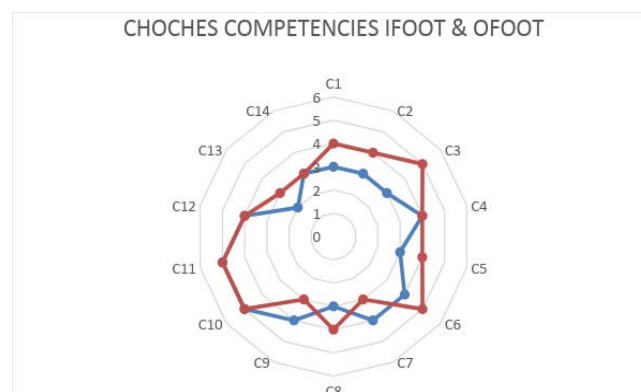


Chart 6: Spider chat for domains inside foot (series 1) and outside foot (series 2)

Referring to Chart 6 above, the assessed value of the two domains measured indicates that the outer foot domain is more easily mastered by the coaches than the outer foot technique development domain. A total of 4 coaches (C3, C6, C10 & C11) can master the technique for domain outside foot. While only two (C10 & C11) can fully control the internal footprint domain. Overall, only the coach (C13) got a score of 2 points for the inside foot domain. This shows that 13 coaches can master completely the two domains of internal and external foot techniques through the F-WBL module that has been implemented.



Chart 7: Spider chat for domains sole (series 1) and pull push (series 2)

Referring to the Chart 7 above, two (C10 & C11) coaches can fully master the technique for the sole domain, while two (C6 & C14) are also able to master the technique for pull and push domains. On average, 12 other coaches are in good standing in mastering both techniques that have been practiced.

Data's analysis for players

Below data analysis for players after Training of Trainers (ToT) for F-WBL methods.

The following are two (2) competency measurement fractions that include measurement for the cognitive domain and the measurement of competence of F-WBL based techniques for 17 football players.

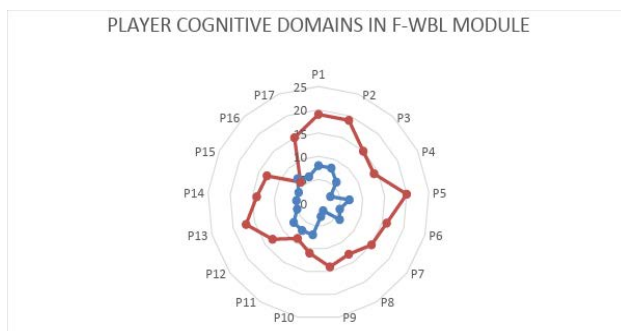


Chart 8: Data analysis for Understanding (cognitive) domain

Guided by the Chart 8, it is clear that the players are still low in the overall score at average score of 6 to 20. The score of 20 only one who is player no P5 while, who gets a low score of 10 is player no P16. An average of 8 players (P1, P2, P3, P5, P6, P7, P13, P17) trainers comprising of football players scored more than 15 points.

Below are the data's analysis for six (6) competencies domains for players:

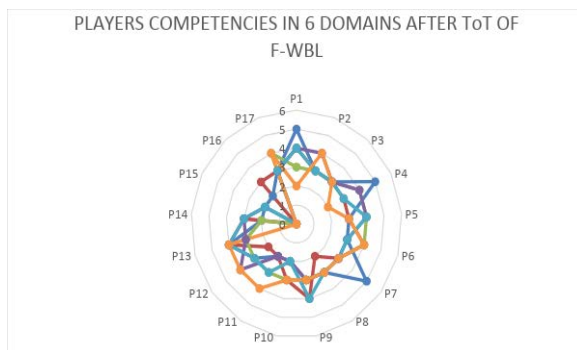


Chart 9: Spider chart for six (6) domains of competencies for players

Below the table of legend for each series for competencies has been measured:

Table 3: Legend for series of competencies for players

Series 1	Series 2	Series 3	Series 4	Series 5	Series 6
Toe	Lace	Inside Foot	Outside Foot	Sole	Pull Push

Based on Charts 9 with reference to Table 3, there are six (6) competing domains that have been measured for the whole of the players that includes Toe, Lace, inside foot, outside foot, sole and pull push techniques. Three (3) of the 17 players no (P1, P4, & P7) had the highest score for domain toe skill development. For the player no P13 being measured with the highest score for overall technical domains score at 4 marks, while one (P15) earned the lowest score for all domains measured. For 17 players, all of them are in a good score ranking with a player no (P1, P4, P7, P9, P13 & P17) with overall scores at 3 to 5 points for all domains. While rest of them (P2, P3, P5, P6, P10, P11, P12, P14 & P16) shows that all of them have a good competence score around (2-4 scores), and it is best to educate football players with the F-WBL techniques that have been learned. The control of all six (6) techniques is important in order that all players will be able to applied best F-WBL techniques to become professional players next.



Chart 10: Spider chart for domains Toe (series 1) and Lace (Series 2)

Based on the Chart 10 of the above 2 competencies for the comparison of the skills of the football players for the development of the toe competency and lace competency, the average indicates the lace technique more difficult compared to the skills development of the players for toe technique. A total of 3 players (P1, P4 & P7) Successfully

earned the highest score for toe technique development. While the two (P1 & P13) players can fully control two techniques at average score 4 & 5. For the comparison of two domain scores are at the range 2 to 5, and only one person (P15) gets score 0 for the lace technic, while for the lace domain the player gets score at 2 points. Overall 10 players still competent above two domains measured. This shows that the domain of the lace technique is a little difficult compared with the toe technique that has been evaluated.

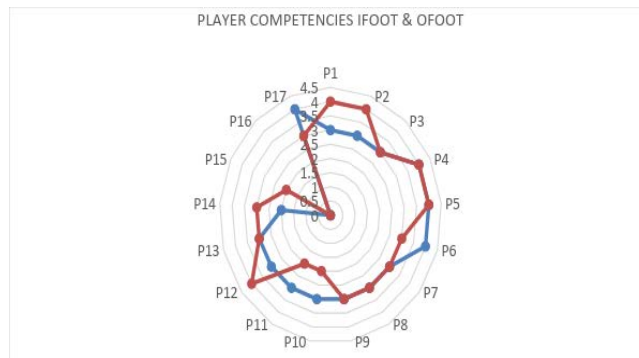


Chart 11: Spider chat for domains inside foot (series 1) and outside foot (series 2)

Referring to Chart 11 above, the assessed value of the two domains measured indicates that the outside foot domain is more easily mastered by the player compared with inside foot technique development. A total of 5 coaches (P1, P2, P4, P5 & P12) can applied outside foot technique. While only two (P10 & P11) gets score at 2 points. One of them never get score in two domains (P16). Overall, only two players (P4 & P5) got a score of 4 points for the inside foot & outside foot domains. This shows that 16 players can applied completely the two domains of internal and external foot techniques through the F-WBL module that has been implemented.

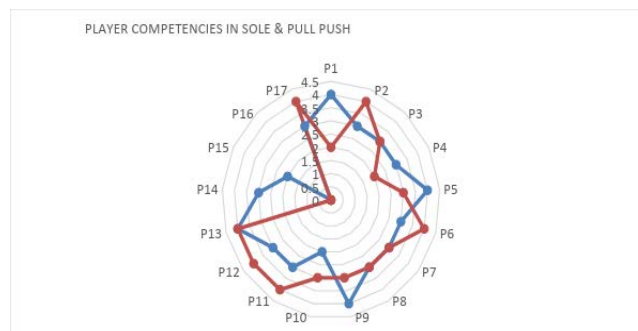


Chart 12: Spider chat for domains sole (series 1) and pull push (series 2)

Referring to the chart 12 above, only 4 (P1, P5, P9 & P13) players can fully master the sole, while six (P2, P6, P11, P12, P13 & P17) are also able to master the technique for pull and push domains. On average, 11 (P2, P3, P5, P6, P7, P8, P9, P11, P12, P13, & P17) other players are in good standing in mastering both techniques that have been practiced.

IV. CONCLUSIONS

This study shows that coaches and players involvement in Football Work Based Learning (F-WBL) & Competence Based Assessment (CBA) under simulated conditions but without the sequences of real practices of F-WBL technics on the spot monitoring it's can be improved. The success was growth while applying real hand on approach of F-WBL instructional methods which relevant to Technical Vocational Education and Training (TVET) that match with OBE implementation. Master trainer and module developer of F-WBL can participate in the process either as a master coach, facilitator or co-advisor to make sure all process covered. As suggested on OBE via F-WBL & CBA implementation and an evaluation process, a variety of Learning Outcomes (LO) such as structured (observations, competencies evaluation, and technical knowledge tests) looks effectively assess for football coach's product development & real skills players. These F-WBL Approach has been designed to correspond with the unique goals of the football player development as a part of Outcome Based Education (OBE). The overall findings in this exploratory study suggest that the F-WBL will become a new innovation in sport science football development match with Technical Vocational Education & Training (TVET) needs.

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