

Football Practice and Behaviour of Learners to Primary School: Assimilation and Accommodation

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Abstract

In order to know whether the teaching of football played dispensed using the form obeyed the fundamental and permanent requirements thereof and located the learner in his motor behavior in the various phases of the sport soccer game in the Piagetian approach assimilation and accommodation, 59 students of CE2 (10 years), CM1 and CM2 (11 years) were observed and subjected to learning football. The results showed that age does not influence notoriously motor behavior in the implementation of technical and tactical actions football. However, it allowed observing clear differences in students' abilities to perform certain technical and tactical actions in different sequences or phases of play. These capabilities have proven in defense and midfield for students and CE2 in attack for those of CM1 and CM2. Thus, assimilation has been the mode of adaptation of elementary students in second year during attack, as well as that of CM1 and CM2 in defense and midfield. The accommodation was against by the observable behavioral repository for learners of CM in attack and defense in those CE2.

Keywords

Football, PSA Requirements, Assimilation or Accommodation

1. Introduction

The old theories of intelligence focused on understanding and were regarded as the discovery of the existing reality; recent theories are subordinate to understanding the invention. Piaget (1978) based on the facts thought that the child must invent first; then understand. Teachers in their teaching first explain and show students what they should do. This approach means that teachers require understanding before seeking the intervention before the action. Piaget is to let the child engage in spontaneous activity in relation to the object that is proposed to him.

If the student brings his own knowledge, it is therefore in the proposed activity with its own powers. It can be

invented and understood what the path is that follows the student to adapt to the physical and social environment (Marsenach, 1972). According to this author, this path is made of a constant search for balance between assimilation and accommodation. In assimilating the subject his answers and know-how are used; in accommodation, the subject requires the search for new answers, and requires new adaptations. For this author when assimilation is dominant, activity of the child switches to the game, whereas when the accommodation is dominating, the child especially deploys imitation activity. The imitation of activity leads to a perfect model. This ideal model is researched in football practice.

However Mariot (1996) reported in his research that behavioral repository students during football practice do not meet the requirements of fundamental and permanent one. This state of affairs confronts teachers probably the difficulties of choice of teaching situations, limiting their pedagogical intervention in the football education of Congo. These difficulties are reinforced by the broad classes workforce; the analysis means of the complexity of the educational situation; the poor and inadequate infrastructure; poor management of instructional time, etc. All these difficulties induce the rupture of didactic contract and therefore there's a didactic impasse.

In view of the above, it is needed to locate the elementary student in his motor behavior during football practice, and identify priority areas leading to the effective teaching/learning without trial and error. It is provided that teachers can learn motor behavior of students faced with the internal logic of football.

In consideration of all that have been said, we question in these terms: does the current environment develop the assimilation behavior or that accommodating?

Behavioral repository of primary students in the Congo is more oriented towards assimilation than accommodation process. To test this hypothesis, our study was to locate the student in his motor behavior in various phases of the sport soccer game in the Piagetian approach to assimilation and accommodation.

2. Materials and Methods

2.1. Experimental Sample

Fifty-nine (59) male students, aged from ten (10) to eleven (11) years, regularly enrolled and attending primary school Plateau "A" were observed and subjected to learning in their confrontation with the requirements fundamentals of football. These students had to study basic level of course second year (CE2); means first-year courses (CM1) and the second year at (CM2). They were selected according to sex (male) good physical and mental health, availability and attendance during EPS. Weight and height were measured.

2.2. Observation Procedure

Two complementary approaches were used pre-observation and the actual observation.

2.2.1. The Pre-Observation

It consisted in reading the observation guide defining observable, then an observation simulation was done to determine the degree of fidelity of observers from the number of diverse agreements obtained by the sum of disagreements, all 100 times as indicated in the following formula:

$$\text{Loyalty degree Observers} = \frac{\text{Number of agreements reached}}{\text{Sum of agreements}} \times 100$$

The degrees of loyalty observers were respectively 75%, 78%, 70%, 76%. This pre-observation has to get used to the different functions performed by observers, and for their skills and abilities in accuracy percentage pipes behaviors extensions.

2.2.2. Observations

The observations were made in the classes selected for our sample four (04) EPS teacher (certified teachers of high school), according to the time of each class jobs, and that during a learning cycle of eight (08) lessons through the free game that pitted students of the same level. The meetings took place on a plot of 40 m long and 20 m wide. Each team consisted of 7 players. The meeting lasted 50 minutes with a half-time of ten (10) minutes. The application of Regulation was the rule. The arbitration performed by the students.

2.3. Observable

The work of Merand (1972) and Grehaigne et al. (1994) allowed us to retain the following observable: Attack Balls (BA); tempted shots (TI), successful launches (TR) ball retention (CB); loss of ball (PB) recovering the ball (RB); defense progression ball and the players to his own camp and the time on the playground (Land) TST.

These observables are probably equipped and authentic situations that meet the essential components of football. They are our basic requirements, characteristics without which football is not obvious.

2.4. Statistical Computing

Was calculated, ANOVA was also made to determine differences observables by level to finally study the simple regression was used to emphasize the dependence exist between the evolution of different observables depending on the age of the subjects. The arithmetic mean and standard deviation ($\bar{x} \pm \delta$). Its general equation is:

$$y = ax + b$$

a = regression coefficient (indicates the variation)
y = resulting in the variation of x by one

The coefficient of determination r^2 (square of correlation coefficient) indicates the variability of (y) explained by that of x.

3. Results

The mean ($\bar{x} \pm \delta$) age, height and weight of students are presented in **Table 1**.

The students of CM2 were older than the CM1 and CE2 ($P < 0.01$). The size and weight means of students' CM2 had more in comparison than those in CM1 of subjects and CE2 ($P < 0.05$ and $P < 0.01$).

Table 2 shows the overall results of the observation.

The results were presented in both phases of the game: Attack and defense. Learners CM1 led more attacks balls (BA) as the CM2 and CE2 ($P < 0.001$). They were also more BA than others. However students CE2 kept the ball better than the CM1 and CM2 ($P < 0.001$).

Regarding the lost balls (PB), the scores achieved by students of CM1 were superior to those of their colleagues in the CM2 ($P < 0.01$) and those students CE2 ($P < 0.01$). In terms of shots attempted (TT) CE2 the learners have

Table 1. Anthropometric parameters subjects of classes CE2, CM1 and CM2 (age, height and weight) ($\bar{x} \pm \delta$).

	CE2 (n = 20)	CM1 (n = 20)	CM2 (n = 19)
Ages (years)	10.38 ± 1.17	11.16 ± 0.57	11.89 ± 0.94**
Size (cm)	135.06 ± 8.28	138.58 ± 5.96	142.65 ± 7.57*
Weight (kg)	28.25 ± 5.87	30.33 ± 4.99	33.44 ± 6.30**

* = Statistically significant difference ($P < 0.05$); ** = Highly statistically significant difference ($P < 0.01$).

Table 2. Overall results.

Level of studies observable	CE2 (n = 20)	CM1 (n = 20)	CM2 (n = 19)
B A	55.33 ± 27.15	68 ± 64	56 ± 32.57
T T	26.00 ± 1.00	43.33 ± 16.17	39.00 ± 18.83
T R	1.67 ± 1.15	0.33 ± 0.58	2.67 ± 1.89**
C B	18.55 ± 24.64***	4.03 ± 0.71	4.49 ± 0.52
D P	96.67 ± 28.71	98.00 ± 25.71	65.00 ± 31.11**
R B	109.67 ± 74.98	78.33 ± 36.67	62.67 ± 27.74
P B	7.67 ± 12.42	106.33 ± 37.63**	50.33 ± 21.17

** : Highly statistically significant difference ($P < 0.05$); *** : Highly significant statistical difference ($P < 0.001$). B A: Attack Balls, T T = Shots tempted; T R = Field Goals, C B = Storage ball; D P = Defence of the progression of the players and the ball; R B = recovery of the ball, P B = bullets losses.

achieved less than the CM1 and CM2 ($P < 0.01$). Moreover, the CM2 students did better shots (TT) as CE2 ($P < 0.05$), which also were more efficient than those of CM1 ($P < 0.01$). Regarding the actions taken in defense no significant differences were found between students of CE2 and CM1. However their scores were significantly higher than those of CM2 ($P < 0.01$). The ball resilience (RB) and ball retention (CB) was significantly higher among students from CE2 compared to those higher levels (CM1, CM2).

Table 3 shows the regression coefficients observable as a function of age.

It appears that there there's no dependency between observable and age ($P < 0.05$).

4. Discussion

The results of this study show that CM2 students were older, and had an average weight higher those of CE2 and CM1 (11.89 ± 0.94 years Vs 11.16 ± 0.57 years and 10.38 ± 1.17 years; $P < 0.01$) (**Table 1**). These same students also presented a higher average size to that in CE2 and CM1 (142.65 ± 7.57 cm Vs 138.58 ± 5.96 cm and 135.06 ± 8.28 cm; $P < 0.05$) (**Table 1**). The weight of CM2 students is significant more higher in comparison than those of class of CM1 and CE2 (33.44 ± 6.30 Kg Vs 30.33 ± 4.99 Kg and 28.25 ± 5.87 Kg; $P < 0.01$) (**Table 1**). These differences may be dependent on the correlation between biological and chronological age. However, we note that students of CE2 and CM1 lagging a year on their education than students of their age group do not have to repeat a grade, according to the school law 5 - 95 (1995) which states has these ages these students should be a higher level of study. This delay on the school curriculum probably result of repetition or a late start school beyond the age limit required. Comparative Canadians students even age group, anthropometric characteristics different to those obtained by Rigal (1995) (139.3 ± 7.4 ; 33.3 ± 6.6 (10 years) and 144.6 ± 52 ; 34.6 ± 6.1 (11 years) Vs 135.6 ± 8.28 ; 28.25 ± 5.85 (10 years); 138.58 ± 5.96 ; 30.33 ± 4.99 (11 years)) in our study (**Table 1**). We can say that the students in our study may have an unbalanced diet. The work of Dobbing (1970) and Winnick (1972) supports this assertion. According to these authors, malnutrition reduces the number of the size of brain cells as well as the lipid content, nucleic acid and protein. Inadequate supply reduces the weight permanently.

The results of the observation of the technical and tactical acquisitions have shown that learners CM1 driving and had several shots attempts compared to CM2 students and CE2 in regards toBA (68 ± 64 Vs 56 ± 32.57 and 55.33 ± 27.15), TT (43.33 ± 16.17 Vs 39.00 ± 18.83 and 26.00 ± 1.00). The RB are clearly different in the CE2, CM1 and CM2 students (109.67 ± 74.98 Vs 78.33 ± 36.67 and 62.67 ± 27.74) (**Table 2**). These differences can be attributed to a big time anterior football practice. According to Singer (1991), every child gets better in complex motor skills because of the experience, increasing age and development.

The ball conservation values (CB) were highly significant among students in CE2 compared to those obtained from learners CM1 and CM2 (18.55 ± 24.64 Vs 4.03 ± 0.71 and 4.49 ± 0.52 ; $P < 0.001$) (**Table 2**). These high ball conservations students could be explained by the discovery stage which is characterized by trial and error. These students are in the discovery phase may have a misunderstanding of the internal logic of football. Keeping too much ball by Dufour (1972) is losing sight of the essential football goal score more goal. The influence of the ball is perceptible among beginner and manifests itself: the concentration of attention on the ball; the cluster; travel subject to that of the ball (Mariot, 1996; CRDP, 1990). As can be seen these students play without a goal this behavior corresponds to assimilation.

We identified the bullet loss level (PB) students of CM1 got average loss very significant ball (106.33 ± 37.63 Vs 50.33 ± 21.17 and 7.67 ± 12.42 ; $P < 0.01$) (**Table 2**). These considerable losses bullets found justification in the lack of organization and lack of experience. According Dufour (1972), the great losses of bullets to the absence of sufficient organization around the ball, or organization were too slow to perform. On the other hand, the

Table 3. Regression coefficient observable as a function of age.

	Observables						
	BA	TT	TR	CB	DP	RB	PB
Regression coefficient (a)	0.33	6.5	0.644	0.02	-15.83	-8.166	-18.667
Coefficient of determination(r ²)	0.0001	0.122	0.063	0.001	0.18	0.058	0.223

B A = Attack Balls, B C = Storage ball, P B = bullets losses, T T = Shots tempted, P D = Defence of the progression of the players and the ball, T R = Field Goals, R B = recovery of the ball.

student's CM2 TR are significant more growth than those CM1 and CE2 student (2.67 ± 1.89 Vs 1.67 ± 1.15 and 0.33 ± 0.58 ; $P < 0.01$) (**Table 2**). These results reflect the success of the shots can be attributed to the accommodation according to Piagetian approach adaptation.

However, the DP of CM2 students is more less significant compared to values obtains with those of the CE2 and CM1 (65.00 ± 31.11 Vs 98.00 ± 25.71 and 96.67 ± 28.71 ; $P < 0.01$) (**Table 2**). This is dependent on the development of the defensive phase and therefore of assimilation as indicated by Piaget (1978).

Our results have shown that age is not a limiting factor in achieving the technical and tactical actions during football practice. Obvious differences in students' abilities to perform certain technical and tactical actions were revealed in defense and midfield for the students of CE2 and attack those of CM1 and CM2 (**Table 3**). Thus, assimilation has been the mode of adaptation of CE2 students in attack, as well as that of CM1 and CM2 in defense and midfield. The accommodation was against by the observed behavior repository for learners of CM1 and CM2 in attack. She was also for those CE2 defense.

5. Conclusion

Our study was to verify if the teaching/learning of football during SPT lesson from the played form, helps develop students' behavior as Piagetian approaches to assimilation and accommodation. It showed that age did not influence notoriously motor behavior of students in the achievement of technical-tactical actions during football practice.

However, it allowed observing clear differences in students' abilities to perform certain technical and tactical actions in different sequences or phases of play. These capabilities have proven in defense and midfield for students and CE2 in attack for those of CM1 and CM2. Thus, assimilation has been the mode of adaptation of elementary students in second year during attack, as well as that of CM1 and CM2 in defense and midfield. The accommodation was against by the observable behavioral repository for learners of CM in attack and defense in those CE2.

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