

Does it matter the Type and Nature of Sports and Games on Developing Students' Sense of Belonging at school?

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Abstract

Children's participation in extracurricular activities is associated with numerous positive outcomes, including fostering students' sense of belongingness. The objectives of this study were firstly, to investigate the role nature of sports/games can play in influencing students' sense of feeling part of the playing-teams; secondly to investigate whether presence of local-based and context-specific games in school can improve general sense of relatedness among students. Using 103 sixth-primary school graders, in a pretest-posttest design, results showed that relatedness among students improved when students were given chances to play context-specific games. Following these results, teachers and other educational practitioners are recommended to allow school-children to play African-based games together with those innovated outside Africa. Since context-specific sports improved students' sense of belonging, in a long-run, it is expected that this will help to improve students' daily school attendance.

Key-words: Tanzania, primary school students, games, sports, belongingness

1. Introduction

There is much agreement among researchers, educators and policy makers that children of school-going age should remain in school until graduation. Yet, despite this agreement, still many children show either low level of daily school attendance or leave school prematurely (Balfanz & Legters 2004; Oghuvbu, 2008). As such, low school-attendance and drop-out problem has been shown to be an international concern since the past three decades (Patrick, 2008; Wotherspoon, 2004). Although student's decision to attend poorly and eventually drop out of school is affected by a number of

complex factors, current studies have been using children's sense of disengagement from their colleagues; school systems and events partaking in the school to explain the problem (Rumberger & Thomas 2000; Wotherspoon, 2004; Sulkowski, Demaray & Lazarus, 2012). In this regard, previous studies regarding students' engagement consider sense of belonging and social-bonds as a predictor of academic functioning. The inference is that, academic functioning and student school-attendance is greatly influenced by sense of belonging among school-children. Therefore, efforts to connect students to schools and among students themselves have been at the forefront of current initiatives to improve education effectiveness (attendance and performance).

2. Theoretical underpinnings

Belonging as a need has been defined differently by scholars to refer to fundamental human drives to form and maintain positive and significant interpersonal relationships (Baumeister & Leary, 1995). This definition is similar to that of Deci and Ryan (1991) who suggested that, the need for belonging "encompasses a person's strive to relate to, and care for others, to feel that those others are relating authentically to one's self; and to feel a satisfying and coherent involvement with the social world more generally" (p. 243). Generally, although definitions regarding the term belongingness differ, common to them is their attempt to refer it to the individual inner feeling of being attached, related, connected and being regarded positively by others in his/her social context. Therefore, throughout this paper, *relatedness* and *belongingness* have been used interchangeably to refer to significant interpersonal-relationships that exist among primary school students.

Although few studies reported on the misuse of group-norms to develop delinquent and antisocial behaviours (e.g., Gilman, 2004 cited in Wilson, 2009; Fulign & Eccles, 1993 as cited by Winne and Alexander 2006), there are many advantages accrued from developing sense of belonging among students. Relatedness within a school context has been specifically measured to be an important factor that could influence students' retention (Pascarella and Terenzini, 2005; Henchy, Cunningham & Bradley, 2009), and prevent unacceptable behaviours at school such as truancy, violence and bullying (Osterman 2000; Dornbusch, Erickson, Laird, & Cigarettes, 2001; Catalano, Oesterle, Fleming, & Hawkins, 2004). Grounded on this connection is the fact that, belongingness is a requisite for the development of self-esteem and eventually self-perceptions of an individual (Maslow 1943; Osterman, 2000; Tinto, 1993). This argument suggests further that, learning relies much on interpersonal relations. As such if a student feels valued and accepted by his or her colleagues, he or she is more likely to show enthusiasm and develop positive self-concepts. This in turn can create a powerful drive for students to come to school, persist and attain an award they are studying for; particularly for those students who feel alienated, those who experience difficulties with their work; and those who find it hard to meet school expectations. In a long-run, current studies (e.g., Eccles & Fredricks, 2006; Wang & Holcombe, 2010; Blomfield & Barber, 2010) have shown that a student with improved psychological construct of relatedness shows improved academic scores and grades. Thus, a sense of belonging remains a key predictor and mediator of academic achievement.

For an individual to feel related to others, he or she demands: (i) frequent and affectively pleasant interactions with others; and (ii) a need to observe such interactions in the context of a temporally stable and enduring context. Because of the above findings and arguments, one of the current techniques used to prevent students' disengagement or loneliness is therefore to allow them to use their free time through extracurricular activities, specifically games and sports (Eaton & Enn, 1986; Faucette, 1995; Taylor et al., 2011). Putting much emphasis on that, the 7th World Conference on Sports, Education and Culture (2010) elaborated that children choose to spend their leisure time in

playing. Thus provision of opportunities for playing and other extracurricular activities give children chances to share age-related ideas, stories and opportunities for them to correct possible mistakes without shy or fear.

In Tanzania, modern sports (i.e. football, netball, volleyball, basketball, and athletics) were at first introduced in the missionary schools. Although hidden to this initiative was their objective to improve students' physical fitness and foster European civilization, in addition, sports and games were introduced to motivate students' daily school attendance. The belief was that, these activities could attract many children (even the less-intelligent ones) to attend schools because: (i) many children are naturally interested in playing with age-mates, and (ii) Sports and games fall under the psychomotor domain thereby demand little of the child's cognitive skills. Knowing the important role sports and games can play in motivating student's attendance, soon after independence, despite many curriculum changes and innovations introduced by the Tanzanian Government, sports and games were left as part of extracurricular activities. At the level of the school, as part of daily school timetables, these games and sports were introduced and allowed to be played during the extracurricular hours. Grounded on the very objectives, in addition to others, at the National level the Tanzanian Ministry of Education and Vocational Training (MoEVT) introduced national-wide sports and games competitions among students: UMISETA – for secondary school students; and UMITASHUTA – for primary school students.

While research conducted over the past decade provide evidence that a sense of belonging to school is critical to the success of students; and although sports and games have been used to stimulate sense of belonging and social-bonds among children, little research evidence exists as to whether the nature (*type and origin*) of games/sports chosen affect students' interest and decision to engage in playing. Researchers and scholars such as Guest and Schneider (2003), Vallerand (2004) and Rowe (2012) have shown that, while some children like formal activities (i.e., relatively structured activities e.g., football, athletics or music), others like informal designed activities (i.e., relatively less structured and leisure activities such as watching television). These explanations show that the formal and informal activity-settings have different influence on the attitude of students towards them, and the strength to which they can influence the student's decision to engage in them.

2.1 The research problem

Although games and sports were introduced in the Tanzanian curriculum to integrate Tanzanian children into schools, in practice, a great deal of autonomy regarding the decision of which game has to be played during game and sport-session have been left to sports-coordinating teachers¹. Consequently, students' ended-up playing the same type of sports/games; more importantly those innovated outside the African context, and of which specific outlined rules had to be followed. According to the Basic Education Statistics (BEST) provided by MoEVT (2013), over the years in Tanzania, primary-school students' drop-out has been reported to exponentially increase. Although many factors are there to explain students' decision to drop-out of the school, this might be influenced by low level of students' sense of relatedness that might further be linked-back to low students' willingness to participate in such games.

¹ These teachers are famous identified and called *mwalimu wa michezo* in Kiswahili

2.2 Objectives and research question

The present study generally intends to examine whether student's place in the peers' network changes when nature and origin of the games played is changed. Specifically, the study intends to explore whether: (i) nature and type of games played at school influence student's decision to engage in playing; and (ii) a student's sense of belonging improves when they are given opportunity to play local-based games. In order to attain these objectives, the study was governed by the following main research questions:

- Does nature/origin of a game and sport influence students' decision to participate in playing?
- Does students' sense of being part of the playing-teams and general sense of belonging improve when subjected to playing local-based and context-specific games/sports?

3. Methodology

3.1 Research approach and Design

This is an experimental study which used one-group in *pretest-posttest* design (see figure 1). Despite its limitations to internal validity, the choice of this design was grounded on the fact that artificial formulation of control and experimental groups through random assignment of individuals in education is unethical. Thus primary-school students of the same grade and of the same school were used for the study at all stages. The only condition is that, students were not informed regarding treatments conducted during the study.

3.2 Population and sample

This study involved grade-six primary school students. This is because, as per the majority of reviewed research (Willms, Friesen & Milton, 2009; Willms, 2003 as cited in Taylor & Parsons, 2011), grade six student engagement drops most dramatically. Thus, a total of 103² sixth graders from a single public primary-school were involved.

3.3 Instrumentation

For the purpose of the study, two techniques of collecting data were employed: attendance-records and a questionnaire. While attendance was used to record the number of students in the play grounds, the subject-completed written-response questionnaire was used to collect respondents' perceptions regarding: (i) feeling part of the sport-teams, and that they enjoy playing together with peers; and (ii) their sense of being related to others in the classroom-setting. Responses from the respondents were collected using a 5-point Likert-scaled questionnaire adapted from the general belongingness scale of Malone, Pillow and Osman (2012) and that of Temperato (2010). In order to meet the purpose and context of study, the number of items were reduced to 21 and written into Kiswahili, the language students could easily understand.

3.4 Data collection procedure

Before data collection, the consent to manipulate students in different set of African-based games and sports was sought from the school principal and sport-coordinating teacher. Although students

² In Tanzania, the class-sizes have become more than double the standard class-sizes recommended internationally.

were asked to respond to the questionnaires given to them before and after the test, they were not informed that they were subjected into experimentation. Data collection process involved a sequence of three stages: pre-test, treatment and post-test as explained below.

- *Pre-test stage*: Before manipulating participants into experimentation, respondents' sense of belongingness, and their perception that they are part of the sport-teams (enjoying playing together) were measured. In addition, students' attendances on the play grounds were recorded.
- *Treatment stage*: At this stage participants were subjected to play local and African-based games (e.g., *mdako, rede, mkuta, kombolela and ukuti*) in addition to those innovated in other continents (e.g., football, netball, long-and-high jump, athletics) but in a context where no specific outlined sports and games rules were imposed.
- *Post-test stage*: At this stage, participants were asked to express their attitude using the same questionnaire used at pre-test stage. In addition, students' attendances on the play grounds were recorded.

It is a point to note here that students' attendance at all stages was taken by one student selected among them. Further, before pre-test, attendance records were taken for three months in advance. This helped to prevent the *Hawthorne effects* as they might be caused by students noticing changes in their normal practice. According to Fraenkel, Wallen and Hyuni (2006), "subjects who know they are part of the study may show improvement as a result of feeling that they are receiving some sort of special attention (p.174)".

3.5 Data analysis

Statistical Package for the Social Sciences (SPSS) version 18 was used to analyze students' perception at pretest and posttest. An independent sample t-test analysis was performed to determine if there was a significance difference regarding students' belongingness-perception at two stages. Finally, a correlation was conducted to see whether students' level of enjoying in the games they play at the play-ground relate with their perception of relatedness to peers in the classroom.

4. Results and discussion

4.1 Reliability analysis

The instrument reliability under this study was tested by computing Cronbach's Alpha reliability coefficient. According to Fraenkel and Wallen (2006), in order for the instrument to be reliable, its Alpha-coefficient should be equal or greater than a value of seven (i.e. $\alpha \geq .70$). Basing on this guideline, questions used to measure variables of the present study had satisfactory internal consistence (see Table 1).

4.2 Nature and type of sports/games in relation to students' playing-participation

Sports in the school from which these data were collected were arranged officially in the school time-table on Fridays. In order to answer the first study-question (and of course, to meet the first study objective), data were collected at two time-points: pre-test and post-test. Of 103 six-graders who were involved in the study, recorded attendance (see graph1) shows that, at pre-test and post-test stages, an average of 62 and 81 students were found participating in various games respectively.

Increase in number of students who attended the play-grounds at post-test shows that, nature (*type and origin*) of games/sports played during that period have positively affect students' interest and decision to engage in playing. As Guest and Schneider (2003) showed, while some children like formal activities (i.e., relatively structured activities), others like informal designed activities (i.e., relatively less structured and leisure activities). Thus, more variation in the types of sports offered has been shown to be a positive factor for engaging young people and increases the probability of participating. Probably, as Rowe (2012) argued, additional explanation that can address an increase in students' participation in context-specific sport is that, many students were motivated by their perceived-competence towards them. This implies that, students like more to participate in games and sports which they are used to, and those demanding less competition among them. For them, what matters most is how much they enjoy rather than how much they win the games. As such, change in the type of sports students were given to play during intervention might have motivated more children to attend in the playing-grounds. This shows that, if students are given opportunity to play a variety of local-based and context-specific games/sports, more and more students might be attracted to participate in the play-grounds.

4.3 Change in students' general sense of belonging and of feeling part of the playing-teams

In order to meet the second objective, two *t*-tests were conducted to examine the difference between pre-test's and post-test's students': (i) feeling of enjoying playing local-based games, and (ii) general sense of being related to others in the classroom. A point to note here is that, at post-test, six (6) students did not attend school, a day when questionnaires were distributed for collecting their belongingness perceptions.

On the one hand, results from descriptive analysis (see table 2) showed that children's sense of enjoyment and being part of the playing teams were somewhat more at post-test ($M = 3.40$, $SD = 0.29$), than at pre-test ($M = 2.27$, $SD = 0.31$). Of more interest, this difference was significant ($t = 26.22$, $p < .001$) leading to an acceptance that, students' sense of considering themselves part of the playing teams changed significantly when local-innovated sports and games were introduced at the playing-grounds.

On the other hand, as it was with students' sense of enjoying playing with peers, results showed that, children had somewhat higher sense of belonging in their classes at post-test ($M = 3.38$, $SD = 0.31$) than at pre-test stage ($M = 2.24$, $SD = 0.51$). Further, statistical computations were conducted to ascertain whether this difference is significant. Analyzes from t-test showed that, calculated t-value was greater than the critical t- value at significance level of 0.001 ($t = 18.9$, $p < 0.001$) (see table 3). This ascertains that, the difference between students' sense of relatedness within the classroom context at pretest and posttest stages is significant.

This shows that, when students are given opportunity to play a variety of local-based and context-specific games and sports within the school premises, their sense of being related change positively (i.e. improve). Increased sense of being attached to each other among students might be explained that, the more students were given opportunities to play local-based sports and games, the more they gravitate towards the social networks of the sporting majority. These findings are consistent and supported by Vallerand (2004) and Rowe (2012) who argued that, sports differ in-terms of their intrinsic properties in that some tasks are more enjoyable than others. Thus, although some environmental variables and individual differences may affect individuals' perceptions toward

them, it is not surprising that some local-based sports tasks generate higher levels of situational intrinsic motivation than do others.

5. Conclusion and recommendation

The objectives of conducting this study were twofold: First, the study intended to explore whether nature and type of games played in Tanzanian primary school influence student's decision to engage in playing. Secondly, the study intended to examine whether students' sense of belonging would improve when they are given opportunity to play local-based games.

Basing on the findings reported above, it can be concluded that, the more children are given opportunity to play local-innovated and context-specific games and sports, the more they might be attending in the play grounds; and the more they might be enjoying playing and feeling part of the played games. Thus, offering the right sports and the right mix of opportunities children are comfortable and confident with, is important.

For the Tanzanian schools where children have limited opportunities to play local-innovated games that are culturally and context specific, it would be fine to recommend sport-coordinating teachers and other practitioners to think of allowing and motivating students to select and play local-innovated games in addition to those innovated outside Tanzania and outside Africa in general. It is thought that, allowing children to play context-specific games might help to improve children attendance in the play-grounds, improving their sense of relatedness; and hence improving overall students' school-attendance as seen during the study.

Further, the study has shown that local-based, culturally and context-specific games enhance development of students' sense of being part of the played games and of the playing teams. Consequently, overall sense of relatedness improved. Thus, to put more emphasis again, it is important to offer the right mix of sport- opportunities children are comfortable and confident to play. In a long-run, although sometimes effects of intervening variables might dilute findings of this nature, it is expected that, as an initial initiative, practicing these findings might help to lessen perceptions of being alienated among school-children in our schools.

5.1 Limitation and direction for future studies

Although the findings of this study are significant for shaping our practice, yet, some limitations are there to stay. The first weakness of this study is grounded on its methodology. To put more explanation on this, during testing, students were not limited from participating in playing football, netball, volleyball, basketball, long-and-high jump, and running. This was purposefully done so as to prevent the effect of testing i.e. *testing-threat* and *hawthorne effects* among participants (Fraenkel et al., 2006). As such, in order to confidently warrant generalization of these findings, pure or quasi experimental studies need to be conducted so as to compare two distinct groups of participants i.e. control and intervention groups.

Secondly, generalizations of the present findings are limited to public secondary schools only. According to Temperato (2010), the school mission and vision might affect and predict the level of belongingness among students. Since public and private schools have different cultures, mission and visions, different results could be obtained when students from private-owned secondary schools are involved. Future researchers are therefore advised to think of using students from private schools in their studies.

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Figure 1: Research approach and design

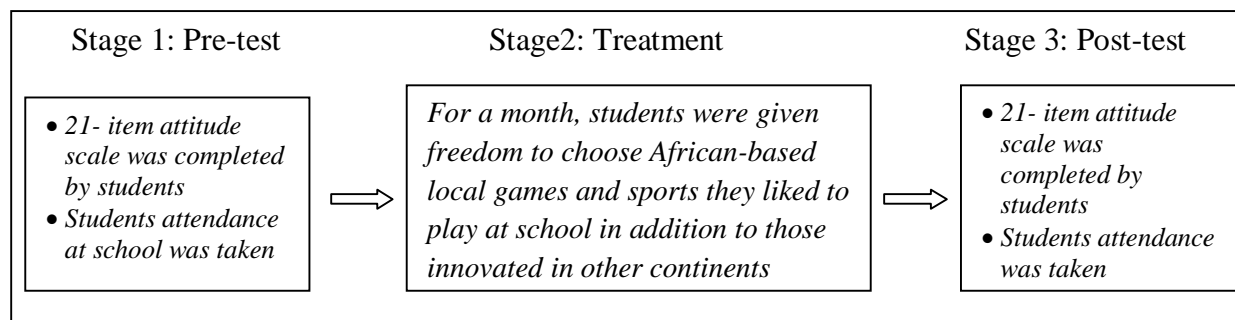
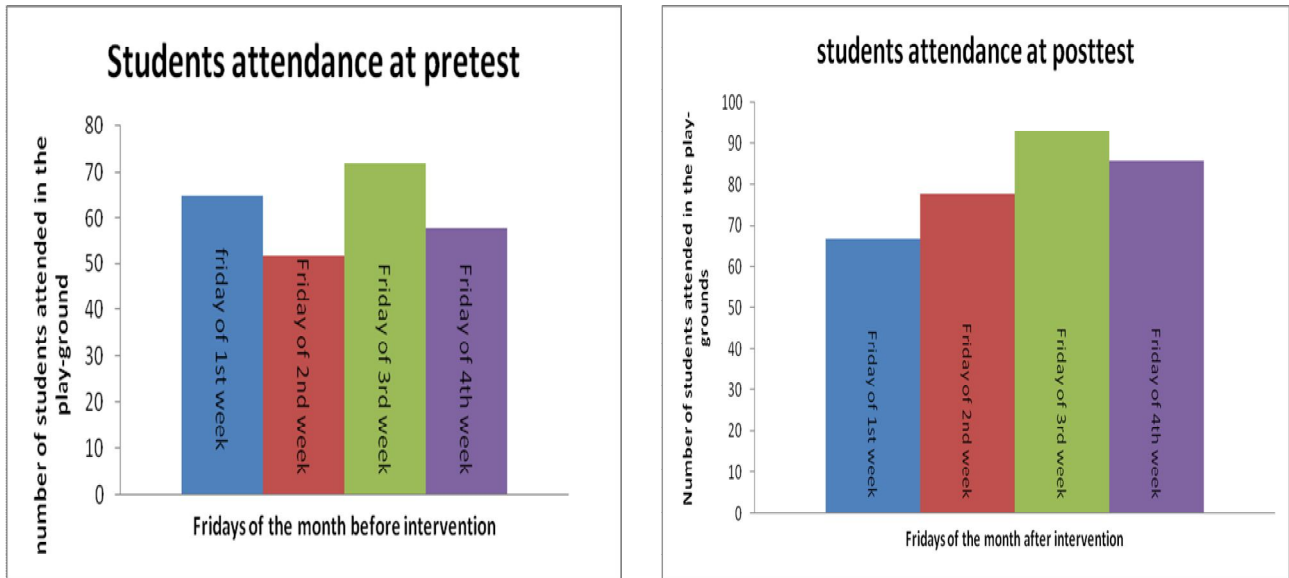


Table 1: The Cronbach's Alpha item-reliability coefficients of the subscales

Sub-scale	Number of items	Cronbach α
1. Students' perception that they enjoy playing with others (i.e. perception that they are part of the teams)	10	.78
2. Students' perception that they relate positively with others in the classroom	11	0.71



Graph 1: Average students attendance recorded in the playing-grounds

Table 2: Mean score of students’ sense of feeling part of the playing teams

	<i>N</i>	<i>N</i>	<i>Mean</i> (\bar{X})	<i>SD</i>	<i>T-value</i>	<i>df</i>	<i>P-value</i>
Pre-test	103	103	2.27	.31	26.22	195	0.000
Post-test	103	97	3.40	.29			

Table 3: Mean score of students’ sense of relatedness at pre-test and post-test stages

	<i>N</i>	<i>n</i>	<i>Mean</i> (\bar{X})	<i>SD</i>	<i>T-value</i>	<i>df</i>	<i>sig</i>
Pre-test	103	103	2.24	.51	18.9	157	0.000
Post-test	103	97	3.38	.31			