

Vocabulary Development Through Gaming: The Nigerian Language Experience

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Abstract: Language teaching and learning are essential in educational and economic development in any multi-ethnic and multi-lingual society like Nigeria. The recognition given to language development in formal education is amply demonstrated in Nigeria's National Policy on Education as L1 or L2. Games and simulations as tools in learning and instruction are gaining recognition world over. The Federal Government College, the Unity Schools in Nigeria are a fertile ground promoting the teaching of mother tongue and second indigenous languages. The Nigerlang experience with three main Nigerian languages (Hausa, Igbo and Yoruba) has shown a supportive evidence of the viability of games in language skills development and in the promotion of Nigeria's rich cultural heritage. Similar experience can be developed to teach skills in other domains of learning thus making learning less stressful but pleasurable, even in other lands.

Key words: Vocabulary, language, development, education, Nigeria

INTRODUCTION

The strength of nationalist feeling, reinforced by difference of custom, religion, culture and general ways of life, especially in a multi-ethnic and multi-lingual nation like Nigeria can best seen from the quality of inter-ethnic communication, interaction and understanding. To guide against planning an illusive nationalist orientation, the Nigerian government developed through education, a national language policy which recognizes the potentiality of language as a readily available tool for bringing about a truly cohesive nation (National Policy on Education, 2004). The need for high nationalist feeling has become very obvious in Nigeria in recent years, and has become a major national goal. The development of inter-ethnic understanding and knowledge in indigenous languages may also have a prominent place in education.

The effectiveness of games and simulations in language teaching and learning has been endorsed by language educators and experts in game design (Crookall and Oxford, 1988; Palmer and Rodgers 1983; Terrel, 1982). However, in spite of the several positive educational influences inherent in games and simulations, they still stand as unexplored educational resources especially in Africa (Akinyemi, 1990, 1997).

Nigeria with a population close to 100 million people has over 400 different languages amongst which Hausa, Igbo, and Yoruba are the major ones. The teaching and learning of these 3 major languages at both mother tongue (L1) and second language levels (L2) at the Junior

Secondary classes, have been seen by most Nigerians as one of the ways of arriving at a more united Nigeria (Akinpelu, 1993). In achieving this, various approaches have to be adopted.

The vision of Meadows (1990) for the simulation gaming field for the 21st century as presented at the 1990 international conference for games and simulation includes, solving universal and global problems via games and simulations. It is note-worthy that the instrumental value of language in problem resolution cannot be over-stressed. It is a reality available tool to engender communication (verbal or non-verbal) and understanding within us and between us (Willkins, 1982) not-withstanding the distance.

Objectives of the research:

- To show how gaming simulation can be used to increase children's vocabulary in the first language (Mother tongue L1).
- To demonstrate how gaming simulation can be used to promote the learning of a second Nigerian Language (L2).
- To show how games and simulation can be used to improve pronunciation in the mother tongue (L1) and second Nigerian Language (L2).
- To demonstrate how gaming simulation can be used to improve social interaction among children and adult including those of different cultural background.

- To show how gaming simulation can be used to promote inter-ethnic understanding and also promote Nigerian culture.

About the game: The Nigerlang game pack was designed by OMOT Industries limited in Nigeria basically to encourage interaction between people of different ethnic background especially in at least two of the three major Nigerian Languages (Hausa, Igbo and Yoruba). It is a near replica of the game Scrabble, adapted to the teaching and learning of Nigerian Languages. The objective of the game is to create a home-school teach-yourself environment where each player becomes a teacher as well as a learner of any of the languages.

The Game Pack contains 100 tokens (1 point and 2 points variations), 8 of each letter that make up the alphabet of each of the 3 main Nigeria Languages (Hausa, Igbo and Yoruba) 3 medals for winners in each of the languages and 1 overall winner badge.

The Game does not teach the languages, neither does it teach the directly how to speak the languages fluently. However, through interaction between players during games session such skills may be acquired.

It familiarizes players with the alphabet and vocabularies in each language. Thus the game encourages the understanding of the meaning and pronunciation of equivalent words in each language for future use. Since, English in this language is popular use in Nigeria (Lingua Franca) each word formed by any player is translated to English for proper understanding and reference.

At the end of the game, a player is expected to have added at least 5 new vocabularies to his/her level of knowledge in languages other than his/her own mother tongue (L1). The game can be adapted for use in the acquisition of other minor languages in Nigeria and other parts of Africa in general. The game can be played in a flexible time schedule ranging from 40 to 90 min depending on the level of interest generated.

Rules of the game (as presented by the designer):

- The game proceeds in an anti-clockwise direction and in alphabetical order according to the players' surnames.
- Whoever starts places the first letter of the first word to be formed on the square marked Start and ABUJA.
- Each word must be formed Southwards (downwards) and Eastwards (Rightwards).
- Original word formed by a player attracts one point. In the process of forming a new word, additional word(s) could be accidentally formed. Such word(s)

formed attract(s) one point each. In situations where a new word formed will render adjoining letters meaningless, for the word to be used, the player is allowed to complete the letters to form meaningful words. The word(s) so formed also attract(s) one point each.

- Word formation must be restricted to squares enclosed by the boundary of the map of Nigeria (including Lake Chad).
- A player forfeits the point meant for a word when such a word is wrongly spelt or makes no sense.
- A player is not allowed to duplicate words already formed on board.
- A dictionary in each of the three Languages may be provided as a guide. An English dictionary may also be used. Any word formed must have meaning in the 3 Nigerian Languages.
- The Game ends when the tokens are finished and also when no new word can be formed by any of the players.

Scoring:

- Two points are awarded for each correct word formed in a language other than the players' native tongue.
- One point is awarded for each correct word formed from the player's mother tongue.
- One bonus point is awarded for forming a word in which one of the letters coincides with and lands on the first letter of a capital city.
- One bonus point is awarded for words accidentally formed to avoid forming nonsense words.

Winning: A player is declared an overall winner and receives a yellow overall winner's badge if he/she obtains the highest number of points. However, the player who obtains the highest point in any language other than the mother tongue is awarded a medal on such a language. If a player wins such a medal in three consecutive games he or she becomes a star. A gold star medal, the ultimate award is thus given to such player.

MATERIALS AND METHODS

Experimental sessions: The game was tried on different age groups amongst Nigerian students who came from the 3 different language groups (Hausa, Igbo and Yoruba). A group of university teaching staff also participated in determining the degree of effectiveness of the game. It is to be noted however, that these experiments were conducted outside classroom situations where participants were not under any kind of pressure to obtain grades or the usual teacher-student threat.

Experiment 1: The first experiment was conducted using Junior Secondary School (JSS) students of Federal Government College, Ilorin, Nigeria (being a Unity school with multi-ethnic composition). The students' ages ranged between 10 and 15 years.

For each round, a group of 3 students from each of three different language groups (Hausa, Igbo and Yoruba) in Nigeria played the game in a mixed session. In addition, 2 observers from each of the three language groups were randomly selected from Senior Secondary (SS) school students who are older, senior and mature and also speak the Language (L1) were made to watch each session and confirm the authenticity of every word formed in each of the 3 Languages. In a few cases, the teachers of these different languages witnessed some of the sessions verifying pronunciations, meanings and usage of words formed. A student from any of the minor languages was made a recorder for each session. In all, a total of 41 Junior secondary students played the game during this first experiment while 82 student observers were made to participate. At the end of the third round, apart from using the points scored to determine the winner, each participant was made to write and pronounce a minimum of five new words in any of the languages (apart from his/her mother tongue) that he/she could claim to have just added to his/her vocabulary. Table 1 shows the results of students' performance.

The Table 1 shows that Js 3 students who formed the highest number of words per round in the 3 languages also had the highest point (34) while the JSS 1 students who formed the least number of words also had the least point (16). It could be gathered from the table that Jss 2 students spent the longest time (54 min) in playing the game, while those that scored the highest point spent an average playing time of 51 min on the game.

As effective as the method appears, in language acquisition the possibility of confusion resulting from interference can hardly be ruled out, since a player is exposed to 2 other languages that may be new to him/her

at the same time. At the assessment phase for instance, Yoruba language speaker' (players) reaction to plural morphemes in Hausa and consonant clusters in Igbo and Hausa languages showed some level of confusion being non-native speakers of the 2 languages. Similar reactions were noted for multiple semantic interpretations of Yoruba words.

Furthermore, it could be observed during the playing sessions that the factor of experience or professionalism in gaming designs/participation also counts, in students' performance in Language teaching games. Experienced game players e.g. those that were used to scrabble, were able to generate more words within a short time than new-comers in the gaming field, i.e., short response latency.

Experiment 2: The second experiment was to make students who speak the same language, play the game in their language and also to make students of lower class (JSS2) play the game with students of a higher class (SS2).

Most language game users and designers see the factor of age and cultural background as subjects as critical in language learning. Hence efforts are usually made to guide against the possibility of cultural clash. In this second experiment, subjects from similar cultural background, speaking the same language, though of different age and experience were made to play the game in pairs. This dyadic method, apart from offering an opportunity for the less experienced participant in the language to share from the more-experienced without any linguistic interference, it also enhanced mutually supportive relationships. On the whole, a total of 12 pairs per language (Hausa, Igbo and Yoruba) played the game (i.e. 12 JSS II students and 12 Ss II students in each of the 3 languages). The result obtained is as contained in Table 2.

As seen from Table 2, a pair wise approach to gaming has its own advantage in language learning. As in the first

Table 1: Junior secondary students' performance in the Nigerlang game

Level of participant	Participant			Age range	Student observers			Average no of words formed per round	highest point scored	Average Playing time
	Male	Female	Total		Male	Female	Total			
JSS 1	10	5	15	10-12 years	20	10	30	58	16	42 Min
JSS 2	8	4	12	15-18 years	16	8	24	65	25	54 Min
JSS 3	8	6	14		16	12	28	82	34	41 Min
Total	26	15	41		52	30	82			

Table 2: Students' performance in the dyadic approach to the Nigerlang game

Level of participa	Participant			Age rang	Student observers			Average no of words formed		
	Male	Femal	Total		Male	Femal	Total	Hausa	Igbo	Yoruba
Jss2	28	8	36	12-14 years	-	-	-	28	23	34
SS2	30	6	36	15-18 years	12	6	18	39	36	41
Total	58	14	72		12	6	18	67	59	75

experiment, the older participants (SS2 students) were able to generate more words than the JSS 2 students in the three languages, hence creating direct opportunity for meaningful sharing of experience. Although the average number of words formed in the dyadic approach is lower compared to the performance of individual players in experiment I, the learning rate appears higher in the approach since the language is in use is the same amongst players. This shows that the game is also found effective at mother tongue (L1) level.

RESULTS AND DISCUSSION

According to Wilkins (1982) language is central to human experience and is a readily available tool to engender communication and understanding within us and between us, regardless of distance as a limiting factor. It is equally an index of human intelligence (Akinpelu, 1997, 2006). Therefore, in accomplishing the visions of Meadows (1990) for the simulation gaming industry for the 21st century which include solving universal/world problems via games and simulations, the value of language can not be over-stressed.

It has been observed that the recognition of modern gaming simulations as teaching-learning tools in Africa has been slow to take off simply because they are usually based on alien cultural experiences which are difficult to transfer (Ngwa and Langley, 1987). The NIGERLANG Game is probably a positive reaction to such observations. Our experience with this game suggests that Indigenous Language Games (ILGs) are capable of filling the gap that might have been created by the L2 learners' detachment from the real native users of the language. When effective follow-up by the L2 teacher is ensured, ILGs can become useful tools in maximizing learners' performance in language tasks. It will also facilitate their positive attitude towards the (L2) language and the culture it represents. The implication of this in a multi-ethnic and multi-lingual nation like Nigeria is very serious (grave). Desired behavioral changes amongst the different cultural groups in Nigeria can be better achieved in relaxed atmosphere using instruments like games and simulations. Such could also be used to feel the pulse of the nation.

On the whole, the Nigerlang Game poses a challenge to Educational Technologists and experts in games design, in finding ways of increasing the number of available Indigenous Language Games (ILGs) that could

enhance the teaching and learning of Nigerian indigenous languages. Such designs may take learners beyond mere language skills acquisition and communication on to passing aspects of public examinations (GCE and SSCE). One of the limitations of the study is the absence of rigorous research design and analytical tool. Notwithstanding this limitation, the observation of a more superior performance from JSS III participants than the JSS I is as expected. The JSS III group is older, more experienced and senior to the JSS I group. The time actually taken in playing the game was not significantly different from one group to the other.

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