Efficacy of Scrabble Instructional Game Technique on Interest and Achievement in English Vocabulary: An Experimental Study

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Abstract: This study investigated the efficacy of scrabble instructional game technique on interest and achievement in English vocabulary an experimental study among junior secondary school students in South East Nigeria. The study adopted a quasi-experimental 2×2 pretest-posttest non-equivalent control factorial design involving two groups of students in 4 intact classes. Participants were 78 junior secondary school students that met the inclusion requirements of the study. The study comprised 6 weeks of experiment and 2 weeks of administration of pretest and posttest, marking and scoring. Data was collected using English Vocabulary Interest Inventory (EVII) and English Vocabulary Achievement Test (EVAT). Mean scores, standard deviation and analysis of covariance were used for data analysis. Results indicate that there was a statistically significant difference in the mean interest rating scores and mean achievement scores of students taught English vocabulary using scrabble instructional game technique and explicit instruction technique. Students in the experimental group showed greater interest and achieved higher in English vocabulary compared to their counterparts in the control group. Since, the findings of this study has empirically established scrabble instructional game technique as a modern and an effective technique that arouses and sustains student’s interest for optimal teaching, learning and achievement in vocabulary this current study suggests that teachers should adopt scrabble instructional game technique for vocabulary instruction and its effectiveness can further be investigated using other aspects of English language.

Keywords: Interest, instructional game resources, scrabble game, achievement, vocabulary, explicit instruction

INTRODUCTION

One of the languages that enjoy a high global status in the world today is the English language. The popularity which English enjoys as an international language emanates from its being used as the language of almost all the world’s information stored in the internet. It also dominates other languages, especially, in countries that use it as their lingua franca or require its study either as a second or Foreign language.

Being the official and dominant language in Nigeria, English plays a significant role in all spheres of the life of Nigerians, especially, in all sorts of relevant social interactions, official matters and education (Anyanywu, 2016; Egbe, 2015; Idowu, 2015; Nnamani, 2017). As a facilitator of education, English is not only taught as a subject, it is also the language of instruction, since, it serves as the scaffold for comprehending the scientific and technological terms of different subjects studied at all levels of education. This is because the language of instruction is a significant factor of student’s achievement and development in education. The corollary of this statement that better understanding of all subject’s content depends largely on the mastery of the language used for instruction (which in this study is English language). It is in recognition of its importance that English language (Loewan and Sato, 2017; Nade, 2016; Quorro, 2006) has become a major determinant in measuring the worth, usefulness and quality of examination results in Nigeria particularly at the Basic Education Certificate Examination (BECE) conducted by the West African Examination Council (WAEC) and Nigerian National Examination Council (NECO) for junior secondary school students. BECE is the examination taken after a child’s 3 year of secondary school education. It entails the combination of the internal

Consequently, failure in English language examination at the BECE disqualifies candidates from moving to the senior secondary school level while failure at Senior School Certificate Examination (SSCE) impedes candidate’s admission into any of the universities in Nigeria (Egbe, 2014). The impression created is that the type of grade obtained in English language at BECE and SSCE judges the value accredited to any student’s certificate. This obvious impression five be expected since, according to, Nigerian Educational Research and Development Council (NERDC, 2007) the purpose of the revised junior secondary English studies curriculum is to equip students with an adequate range of words, sentences, sentence types and adequate linguistic skills that will enable them to effectively listen to any speech or lecture, speak fluently and intelligibly; read materials of varying lengths and difficulty and write logically with grammatically correct sentences.

Regrettably, it appears the purpose of junior secondary English studies curriculum is not being achieved considering the reports tendered by WABC and NBCO Chief Examiners on five performance in English language examinations in the last 5 years (2013-2017) (Ahmadi, 2015; Maduabuchi and Ekwe, 2016). These reports revealed a massive failure in English language that resulted from student’s lack of adequate vocabulary repertoire for understanding summary and comprehension passages and for answering questions that require vocabulary substitution.

Vocabulary can be articulated in three peculiar ways which are a set of all the words that exist in a particular language or subject; the words used in a particular context and the words an individual knows (Aubeck, 2011; Disha Experts, 2017; Meare and Jones, 2010; Ogbuehi, 2001). For the purpose of this study, vocabulary is defined as the stock of words an individual has acquired; words that individual is familiar with and which the individual is able to manipulate within a particular language. Vocabulary is at the centre of any language learning because it permeates the listening, speaking, reading and writing skills of language. Each of these skills offers not only challenges but also opportunity for proper vocabulary instruction and learning because instruction and comprehension in these areas require adequate stock of vocabulary.

Vocabulary instruction refers to the teaching aimed at building five vocabulary repertoire thereby enhancing their understanding of word meanings. At the junior secondary school level in Nigeria, the explicit instruction is predominantly adopted by teachers for vocabulary instructional delivery. Explicit instruction is where the instructor clearly outlines what the learning goals are for students and offers clear and unambiguous explanation of the skills and information structure being presented (Smith, 2017; Gemert, 2017). Its technique involves teaching specific words and their meanings as identified by the teacher who, most times, uses learner’s mother tongue both to explain word meanings and as the medium of instruction. The teacher makes sentences with few words which students are expected to copy and memorize. Evaluation is done by asking students to look up the rest of the identified list of words in the dictionary, making sentences with the words and submitting for marking. Although, the explicit instruction technique is the most widely used, it has been criticized as ineffective and scorned as the technique chosen by teachers who are not prepared. This technique is not learner-centred, interactive, engaging and activity based, so as to attract and stimulate student’s interest (Carrier, 2016; Markusic, 2012; Obanya, 2002). Rather, it is teacher-dominated, hinders teacher’s creativity, provides little or no room for student’s input and participation and does not provide variety of learning experiences for vocabulary instruction.

It could be understood from the above explanations that the poor interest and achievement recorded by students in vocabulary calls for an examination of the method and technique employed by teachers in teaching the English language vocabulary. This is because although, there is no best method, any method, strategy or technique adopted by a teacher in teaching any subject positively or negatively influences on student’s interest and achievement in that subject. This implies that the method adopted for vocabulary instruction is capable of not only sustaining student’s interest in learning vocabulary but also making them see knowledge of vocabulary as important in their daily communication and for passing their English language examinations.

Arousing student’s interest in English requires that English language teachers investigate practical ways of transforming vocabulary instruction. One of such ways is introducing a teaching and learning process that is activity-based and characterized by learning experiences that enable students to actively participate in the learning process in a relaxed and exciting classroom atmosphere. Such learning process will make students responsible for their own learning there by encouraging learner autonomy. It will give students opportunities to make discoveries and to exercise their problem-solving potentials. It will also offer students the opportunity to expand their word bank and to actually use words in real
sentences. Students can equally learn and practise their knowledge of vocabulary in oral and communication situations at their own pace there by promoting communicative competence and enhancing achievement in vocabulary.

In order to expose learners to activity-based vocabulary instruction, a number of strategies and techniques have been suggested by researchers such as Akabogu (2002), Obiazue (2012) and Gemert (2017). These include looking for contextual clues of word meanings, sounding words in parts, using semantic maps, word pairs, word log, word wheel and instructional game technique. Good as these strategies and techniques are instructional game technique appears to harness needs, interests and activities around students to meet, educational goals and subsequently, relate them to instruction in vocabulary.

Games, whether manual or electronic are invaluable instructional resources for complementing language teaching and learning, especially, if such games are designed to have incidental or secondary educational value. Games are interactive plays that teach goals, rules, adaptation, problem-solving and interaction. A game is therefore, termed an instructional resource, if it satisfies fundamental needs of learning by providing enjoyment, passionate involvement, structure, motivation, ego, gratification, creativity and social and emotional interaction while learning takes place. In the teaching of English language, games can be used as a technique to teach or expand concepts in order to reinforce English language learning or to teach spelling, parts of speech, word families, register or any other aspect of English such as vocabulary. Students can use games to search, generate new words from a root word by the process of prefixation, suffixation and other word formation processes thereby learning new vocabulary.

Instructional games serve as incentives to make students become interested, actively engaged and disposed to explore their learning environment in the target language thereby transforming the monotony of vocabulary treatment using the dictionary or teacher’s explanation of new and unfamiliar words during lessons. Stressing the importance of instructional games for vocabulary instruction (Damayanti, 2014; Ningtyas, 2015) state that game resources such as scrabble are effective instructional resources for making students active, relaxed and interested in learning English vocabulary. The implication of the above statement is that, since, students learn in an unconscious and stress-free atmosphere, the drudgery associated with traditional vocabulary classes is eliminated thereby enhancing student’s interest, vocabulary mastery and achievement. Also, as students play and compete among themselves under their teacher’s supervision, their mind is shifted from seeing vocabulary learning as a difficult task to appreciating it as interesting and pleasurable. Also, since, the vocabulary lessons are taught and learned in pleasure because it is associated with entertaining and exhilarating game, the possibility of learners rejecting or forgetting what is taught is minimized. In addition because the instructional game is exciting, using it to teach vocabulary arouses and sustain learner’s interest in vocabulary. This underscores the necessity of integrating scrabble game as an instructional resource for vocabulary teaching and learning.

Scrabble is a board game as well as a word game which apart from entertainment, focuses on words and building the vocabulary of its players. It is played by 2-4 players on a 15×15 grid of squares drawn on a game board. Each player competes for a high score by maximizing the letter values on the tiles as well as the premium squares on the game board. Players score points by using their prior vocabulary knowledge to form words on the game board using individual lettered tiles drawn from words that flow in interlocking manner from the left to the right in rows or downwards in columns. A player that scores the highest point wins the game.

Apart from entertainment, using scrabble as an instructional game resource for vocabulary teaching is loaded with many benefits that its players may be unconscious by Arifah (2010), Chioma (2013), Dewanti, (2013), Ningtyas (2015), Premium Stars (2013) outline these benefits to include learning to spell, building one’s vocabulary, acquiring word meanings and learning basic mathematics skills. For instance in the scrabble game, for a word to be scored, the player must have spelt that word correctly. Not only is a player required to correctly spell words, the player can also view words spelt by other players. Spellings and words that seem strange to English language could be checked in the dictionary and their meanings ascertained. By so doing, players learn new words which they add to their repertoire of vocabulary thereby increasing their vocabulary bank. Playing scrabble particularly requires that players equip themselves with basic skill of Mathematics. This is because letters on the tiles have point values and sometimes the squares on the board will require the players to multiply a point value. Thus, players use Mathematics to either add or multiply letter values after playing each word or at the cumulative scoring point. Apart from the above-identified advantages, scrabbling can foster the ability to focus and strengthen learner’s attention span through the excitement offered by the games. For instance, the game can be used to teach.
vocabulary during class using a comprehension passage from their recommended text. The teacher can arouse student’s interest by letting them know that after reading and explaining the passage, they will play scrabble game using difficult words identified by students with the teacher’s help. The teacher can for instance, ask students to identify and underline ten difficult words and ask them to explain some of these words based on their understanding of the context of the sentence where they appeared. The teacher, after dividing the class according to the number of available scrabble board can then ask students to play on the scrabble board the antonyms or synonyms of the underlined words. The group that plays the highest number of antonyms or synonyms wins the game. The teacher can then teach the correct pronunciation, meanings of the underlined words, their parts of speech and their tenses and ask students to make sentences with the words. As the game captivates their interest, students may think they are enjoying themselves without realizing that the more they play, the more they are increasing their stock of vocabulary and the more confident they become in their language arts skills.

It is believed that using scrabble game as an instructional resource for vocabulary instruction could be a step towards innovative and interactive pedagogies much desired by today’s ‘Net Generation’ who according to Schell (2008) seem to have become disenchanted with the traditional explicit vocabulary instruction. Besides, it will go a long way in arousing and sustaining student’s interest in vocabulary.

Interest is a psychological construct which Dewey (1913) and Nnachi (2007) define as the central directive force in human mind and that which dictates, inspires and motivates one in the learning process. Dewey explains that any interest-oriented learning is devoid of coercion, is not mechanical and it results in knowledge and habits that are mentally worthy and purposeful. The opinion held by a German psychologist, Herbart (1965) is that interest is closely related to learning because interest leads to meaningful learning, promotes long-term storage of knowledge and provides motivation for learning. It could be inferred from the opinions of these psychologists that interest is that emotion that prompts a person to spontaneously engage in a learning activity, causing him/her to focus attention on the learning experience and compelling the learner to become absorbed in that experience and to continue in it.

In this study, interest denotes a student’s feeling of like or dislike that propels him/her to give attention or attribute importance to learning a particular subject or an aspect of that subject. A student’s interest in any subject is a great facilitator of his academic achievement in that subject (Rini, 2008; Egbe, 2015; Nnamani, 2017). Learning tends to become easy and effective when student’s interests are aroused and satisfied. Once interest is aroused, students will consider no sacrifice and effort too great to attain proficiency in the target language (Jobin, 2010; Wigfield and Cambria, 2010; Egbe, 2011; Nworgu and Okereke, 2011). For instance, a student is likely to pay more attention, ask questions and spend more time studying vocabulary if it captures his/her interest. A student’s interest in a subject could, therefore, be linked with that student’s active participation and achievement in that particular subject.

The implication of this correlation is that student’s inadequate stock of vocabulary for passing English language basic education certificate examination could be caused by their lack of interest. Akaneme and Onyeabor (2011), Ogboji (2013), Kpologje et al. (2014). Lee and Pulido (2016) aver that student’s interest cannot be disassociated from their academic achievement because interest plays an irresistible role in significantly predicting how students participate in the learning process as well as their academic achievement. Others agree that student’s interest in any subject could be high or low depending on other factors including the methods, strategies and techniques employed by the teacher in the teaching and learning process of a subject. In view of the apparent affiliation between interest, technique and achievement in English language examination, this study investigated the effect This study investigated the efficacy of scrabble instructional game technique on interest and achievement in English vocabulary among junior secondary school students in South East Nigeria.

MATERIALS AND METHODS

Ethical approval: The approval for conducting this study was granted by the Research Committee, Faculty of Education at the University of Nigeria, Nsukka (No. FE/EDA/0060). The heads of departments granted the authors written permission to conduct this study. Participant’s written informed consent was also obtained. The authors adhered to research ethics of the American Psychology Association (2010).

Participants: A total of 78 students were randomly selected from public secondary schools in Nsukka education zone of South East Nigeria participated in the study. The sample size was determined using multi-stage sampling (simple random sampling, purposeful sampling and balloting) and statistical test (analysis of covariance). The participants met the inclusion requirements which
include being junior students of public secondary schools in the study area; the schools must be co-educational, being within the age bracket (9-14) willingness to participate and possession of mobile phone for communicating with the participants in case of any change in the course of the study. Any student that did not meet the above requirement was excluded. Participants were selected after ensuring that their schools were comparable in terms of facilities, power supply, conducive learning environment, availability of instructional resources and English language teachers and nearness of schools to each other for effective conduct of the study. Other criteria for selection of participants were written completion of the informed consent and availability of participants in the classroom throughout the study period see Table 1.

Table 1 indicates that there were two groups: the experimental group which consisted of 40 (31.20%) participants (those taught vocabulary using scrabble instructional game technique) and the control group with 38 (29.64%) participants (those taught vocabulary using explicit technique). The experimental group had 15 (11.70%) male participants and 25 (19.50%) female participants while the control group had 17 (13.26%) and 21 (16.38%) male and female participants, respectively. These were selected from four intact classes A (3.6 and 3.80%); B (4.40 and 2.66%); C (2.80 and 4.56%) and D (5.20 and 3.42%) comprising students from Abia 11 (8.58%); Anambra 15 (11.70%); Ebonyi 13 (10.14%); Enugu 25 (19.50%) and Imo State 14 (10.92%). The participants were within the age bracket of 9-10 (3.20 and 4.18%); 11-12 (8.80 and 7.60%); 13-14 (4.00 and 2.66%).

**Design:** The study adopted a quasi-experimental 2×2 pretest-posttest non-equivalent control group factorial design which involved four intact classes. The design was represented after Frankel and Wallen (2003), Ali (2006) and Nworgu (2015) which permits that treatment or control research conditions be assigned to selected intact classes. Participants were already in intact classes, so, was carried out because it would disrupt the already existing school structure.

**Measures:** English Vocabulary Interest Inventory (EVII) and English Vocabulary Achievement Test (EVAT). EVII was a 20-item researchers-developed instrument structured on a 4-point Likert psychometric symmetric level of strongly disagree (1) strongly agree (4) to capture the intensity of participant’s interest for a given item. Items were structured to measure participant’s cognitive (seven items), affective (six items) and psychomotor (seven items) as they relate to participant’s attraction, action and expression of interest in the presence of object of interest which in this study was English vocabulary development. EVAT was a 40-item multiple choice questionnaire which tested participant’s vocabulary knowledge as it concerns antonyms (25%), synonyms (25%), homophones (37.5%) and English register (12.5%). Three levels of participant’s vocabulary power were measured: knowledge (20%), comprehension (20%) and application (60%). The reliability index for EVII was 0.82 while EVAT was 0.85 using Cronbach’s alpha co-efficient method and Kuder-Richardson formula (K-R 20), respectively.

**Procedure:** Data was collected between August 2016 and July 2017 from participants in the experimental and control group. Two measures (pretest and posttest) were administered on these two participant groups. Four co-educational secondary schools that met the study requirements were purposively selected. By balloting, each of the four selected schools was assigned either to the experimental or control category. The 40 students from the two schools were randomly assigned to the experimental group while 38 students from the other two schools were assigned to the control group. The researchers developed two manuals (one for the experimental and the other for the control group) for teaching the vocabulary topics and to also guide the research assistants who were earlier trained by the researchers on how to carry out the experiment. Before the commencement of the experiment, a pretest was administered to the participants in the two groups using EVII and EVAT. This was to determine the participant’s initial vocabulary knowledge before the treatment and to also compare the two groups with respect to their scores.
in the pretest. The treatment thereafter commenced. The experimental group was taught using scrabble instructional game technique while the traditional explicit instructional technique was used for the control group. After 6 weeks, EVII and EVAT were and administered to the two groups as posttest.

**Data analysis:** Mean scores and standard deviation were used to answer the two research questions posed for the study. The criterion mean for decision-making was 2.50. As a result of non-randomization of the participants, non-equivalent error might have occurred. To control this error, ANCOVA was used to test the hypothesis at 0.05 level of significance, so as to partial out the initial differences between the two groups. The pretest was used as covariates to the posttest scores.

**RESULTS AND DISCUSSION**

Table 2 shows the pretest and posttest interest rating scores of students taught English vocabulary using scrabble instructional game technique and explicit instruction technique. The experimental and control group had a mean interest gain of 0.52 and 0.38, respectively. The 0.14 recorded as the difference in the mean interest gain of the two groups indicates that the experimental group showed greater interest than the control group.

Table 2 presents the pretest and posttest mean achievement scores of students taught English vocabulary using scrabble instructional game technique and explicit instruction technique. The experimental group had a pretest and posttest mean scores of 12.34 and 28.76 with a mean difference of 15.92. The control group, on the other hand had a pretest and posttest mean scores of 11.22 and 24.86 with a mean difference of 13.64. The result indicates that the experimental group achieved better than the control group in English language vocabulary.

The result of the Analysis of Covariance (ANCOVA) of student’s post interest scores in English vocabulary reveals that F-calculated is significant at 0.03 as presented in Table 3. This means that treatment as a main factor has a statistically significant effect on student’s interest in English vocabulary. Scrabble instructional game technique significantly improved student’s interest in English vocabulary. Therefore, the null hypothesis that there will be no significant difference in the mean interest rating scores of students taught English vocabulary using scrabble game and explicit instruction technique was rejected. Results in Table 4 indicate that F-ratio of 25.53 in respect of treatment is shown to be significant with associated probability value of 0.000. This means that scrabble instructional game technique significantly improved student’s achievement in English vocabulary. Since, the associated probability (0.000) <0.05 set as criterion for taking a decision, the null hypothesis that there will be no significant difference in the mean achievement scores of students taught English vocabulary using scrabble instructional game technique is rejected (Table 5).

Results in Table 2 show that the posttest mean interest score (2.90) of the experimental group was higher compared to the 2.52 obtained by the control group (2.52). This means that the instructional game had a statistically significant influence on student’s interest in English vocabulary as presented in Table 3. This result agrees with earlier studies that found that a significant correlation exists between student’s interest and achievement and that teaching strategy which involves student’s active participation increases student’s interest and leads to higher achievement (Akaneme and Onyebor, 2011; Kpolovie et al., 2014; Lee and Pulido, 2016; Ogboji, 2013). Students were able to achieve higher in the posttest because apart from being activity-based, scrabble game aroused, captivated and sustained student’s interest to the extent that they were excitedly absorbed in the vocabulary learning experience.

Results from this study also indicated that students taught English vocabulary using scrabble instructional game technique (experimental group) had a post mean achievement score of 28.76 with a mean gain of 15.92 while those taught using explicit instruction technique (control group) had a post mean score of 24.86 with a mean gain of 13.64 as shown in Table 2. The difference between the mean scores of the 2 groups was shown to be statistically significant as presented in Table 4. The source of this significant difference is attributed to treatment. Thus, scrabble instructional game technique was a significant

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factor in student’s achievement in English vocabulary. This result is in tandem with the findings of Al-Elaimat, (2013), Damayanti (2014) and Ningtyas (2015) who aver that instructional game resources such as scrabble game are effective instructional resources for enhancing student’s vocabulary mastery and achievement. Scrabbling made students active, relaxed and interested in learning English vocabulary, thus, eliminating the drudgery associated with traditional vocabulary classes.

CONCLUSION

The researchers investigated interest and scrabble instructional game technique as correlates of student’s achievement in English language vocabulary. Based on the findings of this study, the researchers concluded that utilization of scrabble instructional game technique significantly improved student’s interest and achievement in English vocabulary more than the explicit instruction technique. The researchers suggest that instead of making vocabulary instruction teacher-centred and making students passive in the classroom, scrabble game should be integrated as an instructional resource, so as to create a relaxed and tension-free atmosphere for vocabulary teaching and learning.

LIMITATIONS

The result of this study showed that using scrabble instructional game technique was instrumental to the greater interest shown by the participants in the experimental group. However, the study had some limitations. The regular English language teachers used as research assistants in this study were reluctant to be involved in this study. They considered the use of scrabble instructional game technique a challenging and tasking innovation in vocabulary teaching. Though these teachers were subjected to training, extraneous variables such as personality and individual teacher’s instructional approach may have been introduced, thus, constituting a limiting factor. In addition, the content scope covered in this study does not exhaust the content of junior secondary school vocabulary syllabus. The authors feel that more encompassing content would have been better. Another limitation is that the study’s sample size was small. Students from private schools and rural locations did not participate in this study. All these factors constituted a limitation to the generalizability of the findings of this study.

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REFERENCES


Smith, H.M.A., 2017. Implicit vs explicit instruction: Which is better for word learning?. Scikit-Learn Inc., USA.


