First Year Students' Perception of Learning Vocabulary through Games: The Case of Jimma University

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Abstract

This paper, resulting from an ongoing Ph.D. dissertation, aims to examine first-year Natural Science students' perceptions of learning vocabulary through games. A perception focused study was conducted in the first semester of 2021, in which 82 participants were enrolled, 41 in treatment and 41 in control groups, and the groups were selected by lottery technique . The treatment group is the focus of this paper. The study applied a quasi-experimental design as it involves quantitative and qualitative approaches to data collection. The experimental (treatment) group was taught the target vocabulary from their Communicative English Skills course material through games, while the control group was taught using the conventional method from the same material. Data were collected, from the treatment group (n=41), using oral debriefing and reflective journal writing immediately after the presentation of each game. From the responses of these 41 treatment group participants, using purposeful sampling technique, the works of eight participants were selected, based on their proficiency test scores that classified them as high achievers, medium achievers, low achievers, and very low achievers, two from each. The study used thematic analysis to analyze the qualitative data. The participants' responses in the oral debriefing and reflective journal writing revealed that students in the treatment group had positive perceptions of learning vocabulary through games. Accordingly, the study concluded that games help students to develop positive perceptions toward learning vocabulary. The paper finally recommends including games in vocabulary teaching.

Keywords: /Active learning/Games/Perception/Vocabulary/

1. Introduction

1.1 Background to the Study

In Ethiopia English is used as a foreign language. In all government primary schools, it is taught as a subject, but at secondary and tertiary levels, it is used as a medium of instruction. Students' academic success in English-medium subjects and in the English language depends on their level of vocabulary (Dessalegn, 2015). As reported by Abiy (2017), in the Education and Training Policy Document of the Transitional Government, previous curriculum design, and instructional processes suffered from old and traditional approaches, and therefore the current curriculum calls for an emphasis on active learning and teaching. As a

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result, he notes that the policy document titled 'Teacher Education System Overhaul (TESO)' program was prepared and introduced by the Ministry of Education (MoE) in 2003. This policy emphasizes the implementation of participatory, active learning in the pre-service and in-service programs of teacher education. However, the implementation of active learning seems to be to the minimum in higher educational institutions.

The problem of sticking to only one teaching strategy seems to exist in the federal universities in Ethiopia including Jimma University. Abiy (2017) contends that the traditional 'chalk and talk' approach with students as recipients of knowledge may not be suitable for today's generation as the approach does not provide students with opportunities to interpret, organize, and transfer knowledge to solve authentic problems. According to him, to be actively involved, students must engage in higher-order thinking tasks such as analysis, synthesis, and evaluation. Because of this, there is a movement in schools throughout the world from fact-based learning to a new model i.e. active learning, which emphasizes understanding, connecting the world around us, and actively collecting and using information (Leu, 2000). Games can be used as an effective strategy to facilitate the effectiveness of active learning. For this reason, this study has also sought to examine the effect of games on vocabulary learning perceptions of first-year natural science students at Jimma University toward game-based vocabulary instruction.

The study was carried out at Jimma University, College of Natural Sciences. The university, which is one of the first generation universities, has been recognized by the Federal Ministry of Education as the leading national university, as ranked first for four successive years (2009 - 2012). As one of the university's colleges, the College of Natural Sciences has six departments, namely Biology, Chemistry, Mathematics, Sport Science, Statistics, and Physics. First year students assigned at CAVM are considered Natural Science students. The study focused on first-year students assigned to the College of Agriculture and Veterinary Medicine (CAVM).

This article is taken from an on-going Ph.D. study which focuses on the effect of games on vocabulary learning motivation, engagement, retention, and perception of first year Natural Science Students at Jimma University, Ethiopia. From these four outcome variables, perception is the focus of this manuscript, and it deals only with the treatment group. Motivation, engagement, and retention, which are part of the quantitative study, are not part of this manuscript. Therefore, the research objective, research questions, the findings, the discussions, and the recommendations pertain only to the treatment group involved in the perception study.

1.2 Statement of the Problem

A stress-free learning environment and an enhanced students' ability and confidence are helpful for practicing the target language. When using the target language, teachers need to think about ways to creating, motivating and encouraging activities for their students to practice the language. One of the ways teachers can do this is by using learning games. Using games in the classroom has many advantages for students and teachers. Games can motivate the students and challenge them in a more reasonably way. This practice can improve learners' vocabulary and their language proficiency (Linse, 2006).

Vocabulary knowledge plays an important role in language learning (Linse, 2006). Vocabulary knowledge is a predictor of written academic English proficiency (AEP) and overall academic achievement in an English medium higher education program, in an English-as-a-Foreign-Language (EFL) context (Harrington & Roche, 2013). Vocabulary knowledge is viewed as an essential tool for mastering all language skills; it also contributes to the understanding of written and spoken texts (Schmitt *et al*., 2011). The results of a study by Chua and Lidawan (2019) show that educational games could be applied mostly in areas of spelling, vocabulary, grammar, writing, reading, listening, and speaking.

However, knowing a word involves many aspects of the word: its meaning, form, pronunciation, spelling, word parts (affixes), collocation (words that co-occurs with other words), connotation, denotation, how the word relates to others (synonyms, antonyms), and the situation when the word is used (whether it is used in formal or informal, spoken or written, outdated, etc. situations) (Frost, 2015). Because of this, learning vocabulary is a

learning load. Learning load is "the amount of effort that a learner puts in learning the word" (Nation, 2003, in Nunan, 2003, p.23). Therefore, teachers can help students minimize their learning challenges through the effective use of game strategies.

Games enable teachers to present the language in an enjoyable atmosphere, making the job powerful (Gozcu & Catanaga, 2016). Furthermore, games help teachers create contexts in which language can be made useful and meaningful. They create a meaningful context for language use (Ibrahim, 2017). Usman *et al.* (2017) contend that meaningfulness is an approach that emphasizes the ability to communicate and focuses on the meaningfulness of language and communicative functions. Thus, the authors add that language teaching should be based on the meaning of language; that is, to use language in communication.

Games provide fun and enjoyment in learning. However, an exploration of the literature has shown that fun and enjoyment are often discussed in relation to the learning of children, and adults are rarely mentioned in this respect. A study conducted by Laurdie (2014) indicated that a greater focus on the affective domain of adults' learning experience, in particular fun and enjoyment could prove to be as beneficial and important as it is currently considered in children's learning. Adult learners interviewed in this research all mentioned that they experienced either fun or enjoyment in their learning during CGEA classes. Eighty-five per cent talked about fun, and 50% spoke about enjoyment. Two per cent said that they did not experience fun, but that they did experience enjoyment. The students chosen for the current study are young adults whose ages range between18 -30. Young adults are people between the ages of 12-30 (Kesler, 2021).

According to Serbessa (2006), educators largely agree that teacher-dominated pedagogy places students in an undesirable passive role. Therefore, government policies and implementation strategies encourage learner-centered, active pedagogy, cooperative learning, the development of critical thinking, and problem-solving skills. To the best of the researchers ' knowledge, teacher-dominated pedagogy is the norm in Ethiopian federal universities because the mode of teaching seems to be lecture - dominated while experimental research continues to show the usefulness of active learning. In contrast to the teacher-centered method, game-based teaching generally promotes active learning because games prove to be a powerful tool in language learning and teaching.

Literature depicts that there are vocabulary-related learning and teaching problems currently. First, learners lack attention to learning in general and vocabulary learning in particular. Prensky (2007) contends that one of the biggest challenges in today's classrooms is keeping students motivated and engaged long enough to learn the given material. Similarly, Tan *et al.* (2018) point out that in this advanced and technology-saturated age, gamification is an emerging approach to tertiary level instruction because it promotes motivation and facilitates effective learning through the use of game elements. According to Prensky (2005), today's classrooms are filled with pedagogy that is stale, bland, and almost entirely stuff from the past. However, today's students are Tec-savvy and expect to be engaged. The author**s** believes that it is the duty of teachers to find how to present the curricula in ways that engage the students-not just to create new "lesson plans." One of the ways of engaging learners in learning activities is by using learning games because if managed properly, classroom games can grab and anchor the students' attention on the target lesson rather than on anything else that distracts their attention.

Second, there is learners' negligence to the lecture method in teaching vocabulary. Although lecturing is not totally a bad method, if it is always presented in the same manner, and if it is too much, the students may be bored, and they may lose focus of attention to listen to the lecturer after ten or fifteen minutes. According to Tan *et al.* (2018), students often call such method and content of teaching 'dry' and 'boring'. Dry and boring methods of teaching and content are not motivating and engaging because they hinder learning to take place. Therefore, to reach these students and protect them from boredom, educators are constantly searching to find new techniques to motivate and engage students to foster a greater desire for school and learning" (Annetta, 2008). Learners' lack of attention to lessons can be activated through games because games can also be used as warming-up activities to draw and keep learners' attention.

Third, there is a problem of lack of variety in the vocabulary content of the course entitled Communicative English Skills, Part One, as games and game-like activities are not covered in the material. The vocabulary lessons provided in the course are restricted to presenting vocabulary in listening and reading comprehension texts throughout the course material. Although there is no problem with teaching vocabulary through comprehension texts, a variety of supplementary materials such as games should be used to consolidate the vocabulary which the learners have learnt through working out meanings from the listening and reading contexts. Incorporating vocabulary games into vocabulary lessons can enrich the material. It can also help the learners remember and retain the target words. This can be the contribution of this study to EFL vocabulary learning. Games like "Word Bingo" can be good for revising the vocabulary words taught through the listening and reading comprehensions in the course material.

Finally, there is boredom with the learners. Lack of variety in teaching methodology may result in boredom in learning. Tan *et al.* (2018) point out that boredom occurs when an individual experiences the (objective) neurological state of low arousal and the (subjective) psychological state of dissatisfaction, frustration, or disinterest in response to the low arousal. This aversive state associated with suboptimal arousal can negatively affect learning motivation. According to the 2010 Los Angeles based Higher Education Research Institute (HERI) report, the weighted national norm for first-year students feeling bored in the classroom was 39.2% (Pryor, *et al.*, 2010). Pekrun and Linnenbrink-Garcia (2012) found that boredom is experienced significantly more than other negative emotions directly related to learning and achievement (i.e., *anxiety, anger,* etc.). Li (2022) conducted a research focusing on Foreign Language Learning Boredom (FLLB) and Foreign Language Learning Enjoyment (FLE) ; he examined how they are associated with a wide range of learner-internal variables and teacher-centered variables. A total of 868 university students in studying English as a foreign language (EFL) in China participated in a questionnaire survey. The findings showed that FL emotions depend on the interplay between learners and teachers. In accordance with the findings, Li recommended that enjoyment-boosting and boredom-reducing activities be incorporated into FL classrooms. Such kinds of activities are games.

Moreover, studies conducted in Ethiopian public universities show that the students of these universities are so weak in English that they find it too difficult to achieve it in the courses; they have negative perception about learning English. For example, a study by Eshetu *et al.* (2016) assesses students and English Language teachers' perceptions towards English language instruction in Sidama Zone. The study found that most of the students (86.4%) confirmed as English language is more difficult to learn. According to Fekadu and Hussen (2019), English language use is perceived as a foreign language which has resulted in two main problems. First, students and teachers use it only in the classroom. Second, the current government's policy gives more attention to the native languages than English. As a result, citizens are more interested in using their local languages than practicing English. Endale (2017) also conducted a study to investigate the attitude of freshman students at Wolaita Sodo University towards English language common courses. The results showed that the students believe their majors to be more important than the English common courses. Consequently, they devote much more time to studying their major courses. Also, most students think that English common courses are not essential, but they are just additional courses. According to Jha (2013), one of the linguistic impediments that are hindering students' mastery of English as a Foreign Language is perception of English as a medium of obstruction rather than as a language of instruction.

Studies conducted on Jimma University students also reveal that they suffer from shortage of vocabulary. The problem is more serious for students in the freshman program. For example, the study by Dawit and Demis (2015), conducted on the causes of limited student participation in EFL classrooms at public universities in Ethiopia, including Jimma University, showed that the shortage of vocabulary is a major cause of the problem, making the students' nervous in speaking in English. The authors, therefore, recommend planning activities to improve the students' vocabulary. Games can be one of such activities as they can help the students enhance their vocabulary by promoting their motivation, engagement, and interest in vocabulary learning activities. The findings of the study also suggest that creating a relaxing environment leads to higher student

willingness to speak. Games can also create a relaxing learning environment and encourage students' willingness to participate in activities. Therefore, it is necessary to enhance the students' motivation through games related to the target lessons.

Nevertheless, to the best of the knowledge and experiences of the researchers, the English vocabulary knowledge and proficiency of first year students in Jimma University seems to be very low. For example, during their Communicative English Skills course classes, when students were asked to talk about themselves (introduce themselves) and their families, many of them either used words unrelated to the issue, or omitted key words or even interrupted talking due to shortage of words they need. Worse even, some of them were not ready to speak at all, which could also account for the problem of lack of knowledge of vocabulary. Similarly, when asked to write their own life history and that of their families, almost all the sentences they constructed were full of errors such as misuse of words and omissions of words implying the importance of enhancing their perceptions of vocabulary knowledge and usage through games.

Generally, some of the currently existing problems in vocabulary learning perception can be summarized as learners' lack of attention to learning vocabulary, lack of variety in the teaching material and teaching methodology (focusing on lecture), and boredom that may result from the former. One way of avoiding boredom in learning is by using classroom games. However, as far as the researchers' review of published related literature is concerned, no studies seem to have been conducted on the use of games in higher education in Ethiopia in general, and students' perception of learning vocabulary through games in particular. Only one study has been done on the effects of games on students' vocabulary learning motivation, achievement, and peer-interaction in Ethiopian Primary Schools by Manendante (2018). Therefore, with the aim of filling the existing research gap, this study investigates first year Natural Science students' perception of learning vocabulary through games, at Jimma University, Ethiopia.

2   Review of Related Literature

Several studies conducted by Ethiopian researchers, as cited in Mamo (2003), indicate that the vocabulary learning situation in Ethiopian schools has several drawbacks. One of these relates to the techniques used in vocabulary teaching and learning. Effective teaching and learning requires the use of different methodologies and strategies to meet the demands of the learners (Abiy, 2017). However, the challenge, according to this author, is to find new ways and strategies to stimulate and motivate the creative abilities of today's generation who has more varied sets of orientations towards learning than the learners in the past.

The method of vocabulary instruction in Ethiopian federal universities is restricted to lecturing. Limiting the methodology to lecturing might have had a negative impact on Ethiopian students' poor proficiency of English. Several studies have been conducted on the issue of English proficiency level of undergraduate students in the Ethiopian federal universities. For example, studies conducted by Taye (1999), Hailom (1993), Hailemichael (1993), Mekonnen (1998), Haregewoin (2008), Abiyot (2006), etc. indicate that the English proficiency of Ethiopian learners is declining from time to time. Whereas English proficiency is defined as a person's ability to communicate in English effectively through speaking, writing or listening comprehension (LaRock, 2019). Studies uncover that games increase students' proficiency, specifically speaking. For example, a study was conducted by Fajariyah (2009) to describe whether or not and to what extent games improve speaking proficiency and to identify the situation when it can be implemented in the speaking class. The findings indicated improvement not only in the students' speaking proficiency (covering accuracy and fluency), but also in their behavior during the teaching-learning process and the classroom atmosphere. The implication of the findings, as the writer reports, is that games help students comprehend vocabulary and grammar and enable them to use the vocabulary and grammar in real communication. The current study also assumes that teaching the vocabulary through games can contribute to the students' academic success by promoting their proficiency in the four macro skills.

Pragmatism as a paradigm is used for the current research. This is because a pragmatist aspect of methodology has two important implications for the research which guide the overall process. First, in terms of method choice, this study used mixed methods (quasi-experimental) as multi-methods and as integrated methods. These methods are useful to investigate the phenomena of conceptual learning and motivation to achieve legitimate knowledge in line with the scientific consensual views. Second, the methodology used is very similar to the inquiry process as recommended by Dewey (as cited in Morgan, 2014a, & Mertens, 2015). For Dewey, the inquiry (research) is a cyclic process which starts with the action and leads to the outcome/consequence. This process was depicted in this study by beginning with a game play, leading to reflection and resulting in learning. The researcher then evaluates the workability of the action and establishes his/her warranted beliefs. These warranted beliefs again guide the line of action, and the process of reflection goes on until a workable and valid solution is reached (Morgan, 2014a; Mertens, 2015). This cyclic, reflective and iterative process is very similar to Gibbs' reflective cycle used in this research to facilitate the game-based reflective learning. The current study will apply the pragmatists' assumptions to analyze and discuss the qualitative data for this particular publication.

3. Methods and Materials

3.1 The Setting of the Study

The current study was conducted at Jimma University (JU), the College of Natural Sciences. Jimma University is one of the public universities in Ethiopia, and it is located in Jimma Zone, South-West Oromia, 353.83 km (220 miles) away from Addis Ababa, the capital city of Ethiopia. The study was conducted in 2021.

3.2 Research Design

A quasi-experimental, non-equivalent design was used as it involved quantitative and qualitative methods to collect data for the Ph.D. dissertation. Quasi experimental design involves an assignment of participants to a group, but not random assignment (Creswell, 2012). This is because the nature of this design does not allow the experimenter to artificially create groups by randomly assigning them to the experiment. Based on this, the study (Ph.D. study) , as mentioned in the introduction part, used two natural (intact) groups that were assigned to treatment and control groups for the quantitative data, which is not part of the scope of this manuscript.

For the scope of this manuscript, qualitative method was used for the treatment group through oral debriefing and reflective journal writing immediately after intervention, and this is the focus of this article. Before intervention, the treatment group was taught vocabulary through Board Bingo, Meaning Bingo, Charades, and Post-it-Corners games as a technique (X), and the control group was taught vocabulary through the conventional method (O). After intervention, the treatment group was asked to first do an oral debriefing and then write reflective journal on the process of the game-based vocabulary lesson.

3.3 Sample Size, Sampling Technique, and Coding

As mentioned in the introduction, the study relied on first year students of Natural Science. The College of Natural Sciences (CNS) at Jimma University is one of the colleges in the University. First year students, the target population of this study, from the College of Agriculture and Veterinary Medicine (CAVM), are considered part of CNS. Two sections, from 11 sections, were randomly (using lottery) selected and assigned as treatment and control groups. The College of Agriculture and Veterinary Medicine (CAVM) is chosen for the study because of its proximity to the residence of the principal researcher and its ease to facilitate the process of the study. The number of students who participated in the experimental and control groups were 82, 41 from

each section. And for this particular qualitative study, 8 students were selected from the experimental group based on their proficiency test result that categorized them as high achievers (80-100, n=2), medium achievers (60-79, n=2), low achievers (40-59, n=2), and very low achievers (below 40, n=2). The eight participants were coded as Student 10, Student 18, and so on.

3.4 Experimental Procedure

The procedure for conducting the experiment of the research followed the following steps. First, proficiency test was administered to the treatment group and control groups, and the test revealed statistically insignificant difference between the mean of the treatment group and the mean of the control group ($\bar{X}t=38.60$, SD=12.1; $\bar{X}c=42.03$, SD= 10.79; $p=$ 0.206) implying experience of similar way of vocabulary learning[i]. Next, the participants from both groups were oriented on the process of the research and were taught the target vocabulary using context (as it is provided in the Communicative English Skills Course Material).

Then, the experimental group received treatment through learning vocabulary with games. The target games were played as a means of revising the words taught (the same vocabulary taught in context). After that, oral reflection (debriefing) and reflective journal writing were carried out to evaluate how the students in the experimental group had felt about the gaming activity, what they had learned, etc.

The procedure for the control group followed the following phases. First, after the proficiency test, the group was given orientation on the process of the study. Next, just as indicated above, the students were taught the target vocabulary using the conventional method (or without games) (as it is provided in the Communicative English Skills Course Material). Then, they were required to do the vocabulary activities provided in the course material.

While the vocabulary lessons for the treatment group were summarized and reviewed through games, the vocabulary lessons for the control group were summarized and reviewed through non-game method; that is, using summary exercises like fill in the blank spaces and match meanings to words. The amount of time used to review vocabulary through games for the experimental group was the same as (twenty-four hours) as that of the control group to review the vocabulary.

Procedures for conducting Board Bingo (Meaning Bingo, Charades and Post-it-Corners) Games were prepared and conducted by the principal investigator. Each game proposed took about two hours including oral debriefing and reflective journal writing.

3.5 Instruments of Data Collection

Two research tools were used to collect the qualitative data for this research. These were Oral debriefing and Reflective journal writing. The tools are discussed as follows.

Oral Debriefing: Van *et al.* (2013) define debriefing as a type of instructional scaffold that aims to encourage learners to reflect on the gaming experience. Data for the current study were collected through four aspects of debriefing: experience, identify, analyze, and generalize, adapted from Lederman (1992). *Experience* refers to how the participants felt (positive, negative, happy, unhappy, frustrated, disappointed, satisfied, successful, etc.), during, before and after the gaming experience and why. *Identify* refers to what exactly happened during the game play, or the sequence of events in the gaming process. *Analyze* generally relates to the stage at which the study participants analyze what went right and what went wrong. *Generalize is* the phase at which the participants explain the lessons they have learned from the whole process of the game play.

Games with debriefing provide three levels of learning: playing the game, debriefing in discussion, and writing in a journal (Petranek *et al*., 1992). Reflective journal is a supplement of the oral debriefing which extends the learning process in games and gives insights into individual aspects of the whole experience. In this study, based on the debriefing guideline with debriefing questions, the participants of the experimental group

first played a game, debriefed the gaming process orally, immediately after the game, and then wrote reflective journal on the whole process of the game play. The participants' debriefing discussion was videotaped, transcribed, and analyzed.

*Reflective Journal Writing***:** Reflection can be considered "a highly personal, cognitive process in which a person takes an experience from the outside world, brings it inside the mind, turns it over, makes connections to other experiences, and filters it through personal biases" (Dewey, 1933, p. 9). According to Northern Illionis University Center for Innovative Teaching and Learning (2012), reflective journals are personal records of students' learning experiences. Students typically are asked by their instructors to record learning-related incidents, sometimes during the learning process but more often just after they occur.

The current study participants' reflective journal was based on the five dimensions of Gibbs' reflective cycle: feeling, evaluation, analysis, conclusion, and action plan. Accordingly, in their reflective journal writing, the participants explained how they felt about the gaming experience, evaluated the positives and negatives of the experience, analyzed the reasons, concluded what they learned, and planned how to improve.

3.6 Data Analysis, Dependability and Transferability

To get meaning from using Oral Debriefing and Reflective Journal Writing, the gathered data were analyzed thematically. The data were coded, recoded, categorized into major themes, and analyzed manually. Further, they were triangulated based on four themes merged from the two instruments. To ensure the trustworthiness and transferability of the data, data source triangulation, expert review, and member checking were undertaken.

3.7 Ethical Issues

Regarding the ethical issues, the principal researcher secured ethical clearance from the Research and Post Graduate Coordinating Office of the College of Social Sciences and Humanities. The researcher has also obtained informed consent from all individual participants, and only code, and no personal name is mentioned in this paper. That is to say, the findings were analyzed without mentioning the names of the study participants. Their names were coded with numbers as Participant 4, Participant 10, and so on.

4. **Result**

4.1 Participants' Perception of Types and Effects of Games on Vocabulary Learning

The data collected from the Oral Debriefing (which has four aspects: experience, identify, analyze, and generalize) and the Reflective Journal (which has six phases: description, feelings, evaluation, analysis, conclusion, and planning) has been triangulated. And, from these triangulated data four major themes have emerged: learning vocabulary through the target games (Board Bingo, Meaning Bingo, Charades and Post-it Corners) is interesting, understandable, memorable, and easy. To avoid over repetition only the responses of some students are presented or quoted where similar responses are given.

Learning vocabulary via game (experience from oral debriefing) is interesting. The data about experience shows that the students enjoyed learning vocabulary through oral debriefing. Participants in the treatment group were asked to write down how they felt about learning vocabulary through Oral Debriefing. **Student 4** wrote: "Learning the vocabulary through listing the words I have learned and choosing five from the words, crossing them off and shouting 'Bingo!' made me happy. "Similarly, **Student 25** penned down: "I was very glad about the game. It gives us joy and knowledge at the same time. It is a good experience for me. We have been learning English for just as learning and teaching process, and not as a game. So, it is a good experience. We can understand the vocabulary as an enjoyment, and not as a learning process; I loved it." Similar

responses were given by **Students 4, 10 and 26.** The finding shows that teaching vocabulary through experience, which is part of Oral Debriefing, has positive effects on the learners.

The data from reflective journal also supports the data from the Oral Debriefing. Feelings phase, which is the second phase of Reflective Journal*,* refers to how the students felt before, during, and after the game. Accordingly, **Student 41** wrote, "Before the game, we were learning in a similar channel to the old days, and when the teacher said, "we will play a game" I was so enthusiastic; during the game I was happy, and after the game I was amazed at knowing how many words we were able to learn and the new technique we used to simplify the learning."

Student 26 (Description Phase) described the "Meaning Bingo" as: "First, we were given a board which had 25 words written on it and 10 bottle tops. Then, the teacher started reading the meaning of the words one by one and when the meaning of one word is read, we put a bottle top on the word. The person who got five words covered horizontally, vertically, or diagonally yelled 'Bingo' and became a winner". **Student 22** also described the game in a similar manner: "First, the teacher gave us a board with 25 squares, each having a word on it. Next, the teacher read the meanings of each of the words, and if we got the word on the board, we put the bottle top on it, and the student who got five words covered horizontally, vertically or diagonally before others became the winner." **Student 26** also wrote that learning vocabulary through the Meaning Bingo had positive influence on her. S/he confirmed: "At first, I wasn't sure that I was going to enjoy the game, but after we started playing it and remembering the words, I felt it was productive and [an] easy way to learn." **Students 18, 36, and 41** also expressed similar feelings.

Findings from Analysis/evaluation phase also show that learning vocabulary through games (*Charades)* is enjoyable. **Student 36** witnessed, "The game was interesting, and we did not face any problem during the game." True, the finding shows that learning vocabulary through games minimizes fear. **Student 25** reflected: "I experienced how to learn using game without fear." Other participants' responses **(Student 4, Student 18, and Student 22)** are also in line with the responses aforementioned.

Learning vocabulary through games enhances understanding. Data collected through Oral debriefing and Reflective Journal justifies this claim. **Student 41** reflected the steps followed and outcome of the *Identify* stage. Here goes the reflection:

> *In order to play the game, first, you told us to try to remember the vocabulary we had learned. Each of us tried to remember the words and wrote them in our notebooks. Next, you asked us to share the list with you which you wrote on the whiteboard. This helped us acquire the vocabulary easily. Then, you told us to choose five words from the words listed on the board and write them in our notebooks separately. When you called out each word randomly from the list on the board, we crossed it off if it was on our five-word list. Finally, the student, to finish crossing off all the five words first, would yell "BINGO", and he/she would be the winner. This helped us understand the words more.*

Some other participants **(Students 26 and Student 36)** also shared **Student 41'**s reflection. Data from the Evaluation phase, which relates to what went right and what went wrong during the game of the Reflective Journal also reveal that learning vocabulary via games enhances understanding**.** In evaluating the Charades Game, for example, **Respondent 4** wrote, "Most things went well because we were able to understand the game." Respondent **26**'s reflection is almost similar: "Everything was good because the game was well organized." A similar response (Analysis phase of Reflective Journal) from **Student 22** was, "I think all things went well because the game was very useful to us to understand the meanings of words easily." The same student (Additional phase of Reflective Journal) added**:** "I think all things went well because the game was very useful to us to understand the meanings of words easily." S/he further (Additional Phase of Reflective Journal) reflected: "Learning vocabulary with games is very useful for us because it helps us easily understand quickly." According to **Student 22,** learning collocations using games such as (Post-it-Corners) simplifies understanding. The participant explained**:** "I experienced from the game how to collocate words and how to understand collocations

easily… and I have learned what words go together with the word that the teacher attached on my back." Other participants in this study **(Student 18, Student 25)** also expressed their agreements by writing similar feelings.

*Learning vocabulary via oral debriefing (*Analyze Phase and Generalize Phase*) improves memory (recalling).* **Student 18** (Analyze Phase) reacted saying, "I was planning to handle the vocabulary in a different way for vocabulary quiz and mid-term exam, but due to the game, now I can handle it easily, and I hope I won't forget learning the vocabulary through this game. Similarly, in response to Charades Game, **Student 10** said, "I can say that the game has worked 100% because it was easy for the students to remember and match the words to the actions." **Student 26's** reflection regarding learning vocabulary through Charades reads: "I learned that it's easier to remember words through games like today's game."

Learning vocabulary through the Analyze and the Generalize stages improves matching vocabularies to meanings. For example, in response to the "Meaning Bingo Game", **Student 36** wrote:

The 'Meaning Bingo game' tests how easily we can remember vocabulary words we have learned… I have learned through the Board Bingo game how I can easily remember words and their meanings…'Board Bingo game' tests how easily we can remember vocabulary words we have learned. Moreover, the game helps/enables us to attach the vocabulary we have learned to its meaning. It also tests how much we can attach word meanings to their respective vocabulary. The game can be extended to testing how much students know the vocabulary, its meaning, and spelling….The common Bingo game is played for pleasure, but this one is played for an academic purpose. That is why I am very happy. Hence, I prefer learning vocabulary with games because it is an easy way to remember and manage vocabulary learning.

Responding to the lessons learned from the "Board Bingo" game, **Student 36** added: "I have learned through the Board Bingo game how I can easily remember words and their meanings. The responses given from the other participants **(**e.g. **Student 25, Student 41)** are not far away from those mentioned here.

Learning vocabulary through games is easy. Findings from the Reflective Journal (Conclusion Phase and Planning Phase) show that games simplify vocabulary learning. **Student 36** (Conclusion phase) wrote: "I learnt how to simply deal with vocabulary learning difficulties in the form of play." **Student 4** gave a similar response: "Learning with a game is more effective than learning it in a strict way." **Student 41** (Planning phase) added: "Next time I will be more willing to play a game anywhere without a problem." In a similar manner, **Student 25,** wrote, "I will not face a problem to play the game next time." The responses of other respondents (e.g. **Student 10, Student 26**) also agreed with the responses mentioned by **Students (36, 4, 41 and 25).**

5 Discussion

Effective teaching and learning requires the use of different methods and strategies to meet the demands of the learners (Abiy, 2017). However, according to this author the challenge is to find new ways and strategies to stimulate and motivate the creative abilities of today's generation who has diverse learning orientations than the learners in the past. A number of studies have been conducted on the use of games to teach vocabulary globally. Most of these studies are based on elementary schools. In Ethiopian higher education, however, to the best of the researchers' review of published studies, sufficient studies seem to have not been conducted on the use of games to teach English in general, and vocabulary in particular. One study by Manendante (2018) has been done on the effects of games on students' vocabulary learning motivation, achievement, and peer-interaction in Ethiopian Primary Schools. Therefore, this research attempted to fill this research gap.

This study was intended to investigate the effect games have on vocabulary learning perception. Accordingly, the findings show that games had positive effect on students' vocabulary learning perception. This

subsection (discussion) compares the findings of this study with similar studies conducted to explore students' perceptions toward game-based teaching and learning. Findings somewhere else show that most of the students hold positive perceptions toward the experience. For example, Uberman (1998) found that most students who have experienced game-oriented activities hold positive attitudes towards them. The findings from the current study also agree with Huyen and Nga (2003) who report that, in an action research they conducted, students liked the relaxed atmosphere, the competitiveness, and the motivation that games brought to the classroom. Ibrahim *et al.* (2011) also did a similar study to investigate the factors that might affect higher education students' acceptance of educational games (EG). The findings of the study demonstrated that learning with games can be fun. Most of them believed that games can help them do better in their learning, make learning more interesting, and offer learning opportunities in their learning process. Hence, their findings are similar to the findings from the current study.

The findings are also in line with Silsüpür (2017), who conducted a study with Uludag University students to investigate the role of using word games in L2 vocabulary acquisition. The scores obtained from vocabulary quiz showed that the experimental group outperformed the control group in vocabulary quiz though there was not a significant difference between the results of the quiz. Similarly, the findings of the questionnaire indicated that the participants preferred learning through vocabulary games to learning through the traditional way. Also, the findings revealed that games reduce negative feelings during the learning process. As a result, it was suggested that teachers should reconsider the role of games and appreciate their educational value.

Another study that supports our findings comes from Andres and Casa (2011). They conducted a study to assess the perceptions of 47 engineering third year students at the Universitat Polite`cnica de Vale`ncia (Spain) on the use of games. As a whole, the finding confirmed those game-based learning methods had positive influence as opposed to those conventional methods.

Jamaatthuddin and Or-Kan (2021) also conducted a study to examine students' perceptions of the effectiveness of using game-based learning to learn English for students in higher education. Hundreds of higher education students took part in this study, which used a mixed research method. Similarly, the perceptions of students from Universiti Kebangsaan, Malaysia's Faculty of Social Sciences and Humanities (FSSK) were collected through a questionnaire, and three of them were interviewed. The findings of this study showed that higher education students produced a range of conceptions about using games in learning English that were similar to those reported in the current literature. Like our study findings their findings show that most of the higher education students believe that game-based learning methods are effective in learning the English language and differ from traditional or conventional methods.

The findings from the current study are also in line with Dewey's (1933) still influential Pragmatism paradigm. The paradigm suggests mixed methods (quasi-experimental) as multi-methods and as integrated methods to investigate the phenomena of conceptual learning and motivation to achieve legitimate knowledge in line with the scientific consensual views.

From the discussions and the above empirical evidences, it can be taken that university students generally have positive perceptions towards learning games. This implies that learning games in general and vocabulary learning games in particular should be incorporated into university students' course books regardless of the courses that are offered.

The findings from the analysis and discussion have significant pedagogical and research implications. They can offer pedagogical applications for teachers, students, course designers and course book/text book writers. Further, although games can be used to teach all the language skills and areas, this study does not cover all the language skills and areas. Rather, it is restricted to only vocabulary; that is, it is delimited to investigating students' perception of learning vocabulary through games. In addition, although there are a number of vocabulary games, the study used four non-digital games for intervention: Board Bingo, Meaning Bingo, Charades, and a Collocation game titled "Post-It-Corners". Future studies may investigate the effect of the other games on vocabulary learning in general and perception in particular. Moreover, the current study used a limited number of participants from only one university implying extending the study using large number of participants

from different universities. Furthermore, in the future's investigations, it might be more useful to do research on more number and types of games which might be more effective in vocabulary learning in EFL classes. In connection to this, it is good to investigate which sex groups (male or female) and other socio demographic variables are more enthusiastic while playing games. On top of that, the study is delimited to non-digital games, and it does not include digital games due to lack of availability and accessibility of electronic (digital) resources and skills in implementing the technology on the parts of the investigators and the study participants, the students. This also calls for further study.

6. Conclusions and Recommendations

The aim of the study was to identify the effect of games on students' vocabulary learning perceptions. The findings indicated that games have a positive effect on learners' vocabulary learning perceptions. The findings were obtained through the participants' responses to the oral debriefing and reflective journal writing, in which the participants expressed their preference of game-based teaching to non-game based teaching, the traditional way of teaching. Accordingly, through oral debriefing and reflective journal writing responses, it was generally found that the target games made vocabulary learning enjoyable, interesting, easy, memorable, and understandable. Put it other way, all the participants expressed their preference of game-based vocabulary teaching to the traditional vocabulary teaching.

The participants also found the vocabulary lessons through Board Bingo to be entertaining, interesting, easy, and memorable. They also found the "Meaning Bingo" entertaining, interesting, easy, understandable, and memorable. Similarly, the Charades game was found to be easily understandable, memorable, as well as increasing the frequency of learning vocabulary through repeating the target vocabulary. And finally, they found Post-It-Corners a fun, easy, and effective way of learning. In addition, the participants in the treatment group expressed their positive perceptions about learning vocabulary through games in their responses to the lesson they had learned as a result of using the games.

These positive responses expressed through the oral debriefing discussion, reflective journal writing, and the participants' preference of game-based vocabulary instruction imply that using classroom games to teach vocabulary to university students in the freshman program can be effective.

Based on the above discussions and conclusions, the following recommendations are suggested:

- Games are proven to be useful and effective in this study, so they should be used for teaching vocabulary to first year university students. Therefore, they should be incorporated in the Communicative English Skills course.
- University instructors should think of ways of including games in their vocabulary lessons.
- EFL university instructors should be trained to teach English using games.
- Moreover, the researcher recommends conducting the research on a bigger sample of participants in order to elicit more information about their performance and attitudes to improve this innovative method of teaching vocabulary.
- It is difficult to generalize finding from this qualitative study to all university first year students. Hence, the issue of the current study should be investigated using large scale mixed methods design.

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Authors' contributions:

1 Corresponding author collected and transcribed the data under the supervision of the second and third authors; analysed and interpreted the data with the support and guidance from the second and third authors, and also involved in the write-up.

2 and 3: Advised the first author since the time of the proposal development for his thesis until the write-up and revision of this manuscript. They were involved in the analysis and write-up of this manuscript. They with the first author edited the manuscript based on comments from reviewers and the associate (managing) editor of the journal.

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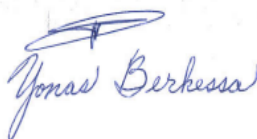
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Competing of Interest

The authors declare that there is no conflict of interest.

Consent for publication

We have agreed - to - submit to the Journal of Social Sciences and Language Studies and approved the manuscript for submission.

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[i] The result of the post test, which revealed better and significant difference achievements of the treatment group, has been addressed in the quantitative study, which is not the scope of this manuscript.