Incorporating Online Educational Games in Teaching Lexical Categories to Improve the Writing Skills of the Students

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I. INTRODUCTION AND RATIONALE

Grammar is one of the main tenets of language learning. According to Sioco and De Vera (2018), grammatical competence is vital in order for individuals to communicate effectively. Competence in grammar also ensures the comprehensibility of the message that is being communicated among the interlocutors of a conversation. Bradshaw also stresses that one's grammar skills are directly proportional to one's writing skills; thus, mastery of grammar contributes to masterful writing (2013, as cited in Sioco & De Vera, 2018, p. 83).

Other studies about teaching and learning of English grammar in the Philippines explore the areas in grammar which the learners face and struggle with the most. Results of several studies by (Sahagun, 2021; Sioco & De Vera, 2018; Barraquio, 2015), suggest that most student-participants got relatively high scores in parts of speech and nouns, while the area in grammar that they struggle with the most is subject-verb agreement These studies encourage future researchers to seek ways to improve students' grammatical competence through these aforementioned areas, particularly subject-verb agreement.

There is no doubt that competence in grammar is most applied in writing because in order to produce quality written output, it has to exhibit clarity of thoughts and unambiguity of message, which is usually achieved when an individual is knowledgeable in the conventions of grammar. According to Baleghizadeh and Gordani (2012), accuracy in grammar is necessary in constructing good writing. Therefore, teachers should bear in mind that in order for students to write well, they must have a strong foundation in grammar as well.

There are many efforts to teach writing to students in the usual, traditional classroom. However, due to the pandemic, the traditional practices and assessments which are usually done inside the classroom have become impracticable. This called for a transformation of these practices so that these can be done virtually. This shift is termed as the digitalization of education and has been one of the centers of focus in educational research nowadays (Viberg & Mavroudi, 2018). Numerous research regarding this topic have revealed positive feedback toward the integration of technology in English language learning classrooms. According to Ulla et al. (2021), the use of technology, such as mobile devices, encourages autonomous, accessible, and personalized language learning among students.

The time of pandemic paved the way to the discovery and utilization of various online platforms in teaching. Thus, (Houghton et al., 2013) discusses educational games can be utilized to support teaching and learning. Games can be used as a support tool to complement traditional teaching methods to improve the learning experience of the learners while also teaching other skills such as following rules, adaptation, problem solving, interaction, critical thinking skills, creativity, teamwork, and good sportsmanship. Teachers need to change and adapt to the new learning environment. Students need new and different pedagogical immersions in order to learn. Research shows that teachers are gatekeepers when it comes to integrating digital games into classrooms because they decide whether they want to introduce digital games in the first place (Mathe, 2020, p. 18). However, digital games may not guarantee meaningful learning if they are used alone, as teachers' knowledge, skills, and personal interests are undoubtedly essential factors for successfully integrating digital games in the classroom (Mathe, 2020, p. 18). Through the aid of games, students can understand the lessons easily and interestingly.

It is also believed that the digitalization of ELE enables teachers to make their lessons about the English language more exciting and motivating for students (Ulla et al., 2021). Among all the varieties of digitalization in ELT, it can be argued that the most motivating to students is the gamification of ELE. The term 'gamification' means applying the elements and mechanics of games to support or improve activities in various settings, such as education (Majuri et al., 2018; Nah et al., 2014). Nah et al. (2014) reviewed fifteen (15) studies, all published from 2012 to 2013, that explored the effects of the gamification of education. Their review showed that thirteen (13) of those studies reported that their participants were academically motivated and engaged after the implementation of the game design. Aside from being motivated and engaged, some of the studies in their review also listed 'sense of accomplishment' and 'productive learning experience' as learning outcomes. Wardoyo et al. (2020) also

supports the notion that the utilization of game-based learning results in higher chances of enhancing learning outcomes.

The study will focus on the effects of online educational games (eg. Game for English, Baambozzle, Word Wall) on students who are having difficulty in constructing meaningful sentences because they lack the knowledge on the lexical categories (noun, verbs, adverb, adjective, prepositions, conjunctions). In this sense, the focus must be building the foundation in grammar to improve writing performance. There is only few research that was conducted about assessing the direct effect of online educational games on students' lexical knowledge in improving their syntactic skills. As for the educational setup, in line with the continuing health situations, learning is still done with different modality (eg. Blended, Hybrid, or Hyflex) . And so, the integration of online educational games in the learning process is relevant. Thus, this study aims to test its integration and to see if it is helping or worsening the pupils' writing performance.

Research Questions

Main Question: How do online educational games improve students' knowledge on lexical categories that will lead to enhancement of writing skills?

Specific Questions:

1. What is the writing performance level of the participants before and after the implementation of the intervention?
2. Which among the lexical categories are the pupils most struggling with when writing?
3. To what extent do online educational games affect the writing skills of the participants?

Scope of the Study

The population of the study will be composed of grade 4 students who were enrolled in Sacred Heart Academy of Novaliches A.Y. 2022-2023. Purposive sampling will be used for the selection of the participants in this research. According to Fraenkel et al. (2012), purposive sampling is used when the identification and selection of certain participants is needed to meet a specific objective of the study. Therefore, the said group will be composed of the pupils who are struggling with grammar and sentence construction, and will be chosen based on the observation and anecdotal records of the teachers.

Data Gathering Procedure

The teacher-researchers will produce two sets of validated teacher-made assessment tools that will assess students' writing performance level during the course of this study: (1) a pretest to assess the writing performance of the pupils before the intervention; and (2) a post-test to assess whether or not there is an improvement in their writing performance after the intervention. Each test will contain two (2) writing prompts which the pupils must write sentences about (e.g. Describe your summer vacation.). The pupils'

pretest and post-test will be graded and evaluated using a validated analytic rubric and a validated transmutation table will be used to rate the level of their writing performance.

As for the intervention that will be employed in this action research, a selected online educational game will be utilized for each lexical category (e. G. Bamboozle). After the discussion of the subject matter about a certain lexical category/word class, the pupils will be formed in groups of four (4) and will compete with each other by answering a ten-item (10-item) activity about the lexical category/word class discussed by the teacher. Following the gamified activity, the pupils will be given time to apply the lessons they learned from the intervention in a guided writing practice. The guided writing practice will have five (5) writing prompts which will lead the students to properly use the words shown in their activity.

The items of the pretest, post-test, and the content of the online educational games will be validated by the school subject coordinator of English, school principal, and a statistician before being administered to the pupils.

II. DATA ANALYSIS

The following will be used to analyze the data and to answer the research questions of this action research: (1) weighted mean to compute and describe the results of the pretest and post-test; (2) frequency to determine which among the categories are the pupils most struggling with; (3) dependent t-test to analyze if there is a significant difference between the results of the pretest and post-test of the pupils and to describe the effects of the intervention in their writing performance.

To further validate the data, the researchers will conduct a semi-structured interview with the teachers using a validated set of questions. This is to ensure that the results of the study are consistent in both quantitative and qualitative measurements.

Action Research Work Plan and Timelines

PREIMPLEMENTATION		
1.	Inform and Seek permission to conduct action research from the subject group head.	2nd Week of August 2022
2.	Validation of rubric and scaling table for the evaluation of pre-test and post test	3rd Week of August 2022
3.	Preparation and validation of Teaching materials and Assessment Tools (Written Test and Online test items).	3rd Week of August 2022
4.	Seek to the Division Research Committee an approval to conduct the Action Research Proposal.	4th Week of August 2022
5.	Selection of student – participants.	Last three days of

6.	Orientation (informing) Parents of the participant through parent-teacher conference.	August 2022
	IMPLEMENTATION PROPER	
7.	Administer the validated Pre-test.	1st Week of September 2022
8.	Implementation of online educational games from after every lesson in each lexical category from 1st to 3rd Quarter. The teacher-researcher will create assessments in an online game platform.	2nd Week of October 2022
	POST - IMPLEMENTATION	
9.	Administer the validated posttest to the participants	2nd Week of February 2023
10.	Conduct a Focus Group Discussion to the group of participants, to validate the qualitative effects of the implemented strategy.	3rd Week of February 2023
11.	Analysis and evaluation of the gathered data	4th Week of February 2023
12.	Finalization of research paper. Seek the approval of the School-Research Committee.	1st to 2nd Week of March 2023
13.	Submission of Final Research Paper and wait for AR presentation.	3rd Week of March 2023
14.	Share the Research Paper in the Professional Learning Community	4th Week of March 2023
15.	Publish the Research Paper in an academic journal.	1st Week of April 2023

Cost Estimates

Item	Cost Per Unit (P)	Number	Total Cost (P)
Report materials and supplies ink for printer bond paper	500.00 150.00	5 pcs 100 pcs	500.00 150.00 650.00
Duplication services(reports) Pretest and Posttest (written test) Letter for Parent Consent	1.00 1.00	60 pcs 60 pcs	60.00 60.00 120.00
Field work Online Researches (internet consumption) Transportation (going back and forth to division office, buying research supplies) Tricycle Fare Jeepney Fare	1,000 30.00 11.00	once 20 times 20 times	1,000 600 220 820
Subject/Research Participants food and beverages (snacks)	150 per head	29 students	4,350 4,350
Total = 5,940			

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