

DEVELOPMENT AND VALIDATION OF PAGE (PUPILS' ACTIVITIES AND GAMES IN ENGLISH): A GAME-BASED INSTRUCTIONAL MATERIAL

"Jan Aerial B. Alvarez"

janaerial.alvarez@deped.gov.ph

"Public School Teacher, Daniw Elementary School, Victoria, Laguna, 4011 Philippines"

Abstract

The study's general objective was to develop and game-based instructional material in English 2. There are four variables that were considered in developing the material, objectives, targeted learning competencies, content, game-based activities, and assessment.

A researcher-made questionnaire in the form of a checklist was the main instrument used to collect data in this research. The questionnaire was checked and validated before it was distributed to the respondents. A 5-point Likert scale was the research instrument used to rate the instructional material based on the indicators. Mean, standard deviation, and t-test were used to determine the average and difference of the ratings.

The research findings were summarized based on the data gathered by the researcher.

The study revealed that the significant difference between the validations of proficient teachers and highly proficient teachers of the game-based instructional material based on the computed mean scores of the evaluator shows that almost the same validation was made. There is no significant difference on the ratings made by the proficient and highly proficient teachers relative to the game-based instructional material, as revealed in the responses which shows the objectives, targeted learning competency, content, game-based activities and assessments, and ease of use.

Based on the findings, it can be inferred that there is no significant difference in the ratings of the respondents. The game-based instructional material was made to make teaching and learning easy and enjoyable. All the instructional material's components provide a clear vision of what the learners will achieve after each topic. The game-based instructional material is ready to be utilized. Thus, the null hypothesis was accepted.

The use of the instructional material is recommended for teachers to enhance student participation in class. Teachers can adapt the material according to students' progress. The material is particularly suggested for Grade 2 learners to demonstrate that learning can be enjoyable with appropriate activities. Parents are advised to support interactive learning at home, as many game-based activities can be done outside the classroom. It is also recommended for future researchers to create additional activities that align with learners' needs and learning abilities.

"Keywords: Game-based learning; Classroom Games; English Learning Games; Instructional Material; Development of Instructional Material"

1. Main text

Introduction

The COVID-19 pandemic has brought about unprecedented changes and challenges to the learning process. Students, teachers, and parents have encountered several challenges as a result of the abrupt

transition in education. According to Jackaria (2022), Department of Education rolled out pilot face-to-face classes as education began to recover from the effects of COVID-19. Consequently, it is necessary to investigate instructors' preparations and instructional challenges during the first few weeks of class reopening following the COVID-19 closures. The author conducted a study which explored the teacher's preparation and instructional challenges encountered during the first few weeks of reopening classes. The study revealed that teachers are facing challenges regarding instructional materials development, acquiring new teaching strategies, socially and mentally unprepared students, and time management.

Engaging students in classroom content is always a difficult task, and because traditional forms of education have become expected and somewhat redundant, and it leads to low students' learning capacities. According to Maliqi et.al (2015), disengaged students are more likely to disrupt the classroom, less likely to accept challenges, receive lower grades, and lack confidence in their ability to learn. According to Adipat et al. (2021), student motivation and engagement are perhaps the most obvious and persuasive arguments for incorporating digital games into the classroom. In addition to using images, sounds, and colors to encourage player responsiveness, the games are structured to maximize user attentiveness. Zhang (2018), stated that playing games in English teaching is one of the effective ways to motivate children to work hard and cultivate their interests in learning English. With the recent development of English teaching, the roles of games in class have been discussed in different aspects. And more and more teachers use games in their teaching as they come to realize that playing games in English teaching is very important. This is an agreement with Ucus (2015), who stated that game-based learning or GBL, help students improve problem-solving skills and make it possible for them to interpret their society, nature, and the world around them through experiences.

As stated by Satrio et al. (2022), in this post-pandemic era, any learning method that adapts the online learning system is the key to the students' successful mastery of the material. The adoption of game-based learning is based on the interests of modern students. Learners focus more on online games because they are deemed more entertaining than traditional education. No one cannot deny the monotony of education in this post-pandemic era. Everyone must keep in mind that learning outcomes do not necessarily represent students' cognitive abilities, but rather their interest in the learning we provide. No matter how challenging the subject matter, if the students' interest and motivation are developed, cognitive outcomes will improve.

Velasquez (2022), conducted a study to determine the effects of using game-based online platform as an assessment tool in increasing the academic performance of students. The results showed that game-based online platform increases the students' level of engagement, interaction, and evaluation. The learners also showed improvement in their academic performance in English.

Prior studies focused on the use of game-based learning digitally and on an online platform, but now that the students are gradually transitioning from online learning to face-to-face learning, it is also important to recognize the use of game-based learning in the post-pandemic era in a different setting, especially considering that the students in the country were unable to attend face-to-face classes for two years. This research aims to develop and validate a game-based instructional material that will assist teachers in preparing interactive game-based instruction that will increase student participation by making lessons more enjoyable and engaging. The instructional material will also target the least mastered competencies of the students, providing teachers with a variety of activities for use in their lessons.

Background of the Study

Pokhrel and Chhetri (2021), stated that COVID-19 pandemic has created the largest disruption of education systems in human history, affecting nearly 1.6 billion learners in more than 200 countries. Closures of schools, institutions and other learning spaces have impacted more than 94% of the world's student population. This has brought far-reaching changes in all aspects of lives. Social distancing and restrictive movement policies have significantly disturbed traditional educational practices. Reopening of schools after relaxation of restriction is another challenge with many new standard operating procedures put in place.

In the Philippines, the COVID-19 crisis has affected about 27 million learners, one million teachers

and non-teaching staff, as well as the families of learners as stated by Obana (2020). Student burnout quickly became an issue in just a matter of days. Parents were alarmed to see their children weeping, skipping meals and experiencing mental breakdowns while straining to accomplish the activities in their modules. Their laments were validated by the SEQuRE survey, which found that 54.7 percent of students said distance learning activities had adversely affected their physical and mental health, while 33.4 percent said distance learning had strained their relationship with their families. (Adonis, 2021)

The transition from face-to-face classes to different learning modalities presented difficult-to-avoid obstacles. In a report submitted by the District of Victoria regarding its Learning Recovery Plan, no interaction with the students resulted in learning gaps that impeded the execution of the intended lesson, as majority of schools utilized Modular Distance Learning. Additionally, there is an insufficient supply of teaching and learning materials and equipment. Another issue is that teachers are overburdened with overlapping reports, making it difficult for them to manage their time to create useful materials for students of varying abilities.

Pursuant to the Republic Act 10533 or the Enhanced Basic Education Act of 2013 in Section 5, item H under curriculum development, states that, "The curriculum shall be flexible enough to enable and allow schools to localize, indigenize and enhance the same based on their respective educational and social contexts. The production and development of locally produced learning and teaching materials shall be encouraged, and approval of these materials shall devolve to the regional and division education units." Teachers are encouraged by the department to create instructional materials that will cater the needs of the learners. In connection with this, DepEd also issued Department Order 08 s. 2015 or the Classroom Assessment Policy Guidelines. It states, "There must be sufficient and appropriate instructional interventions to ensure that learners are ready before summative tests," and "There must be intervention by remediation and extra lessons from that student's subject teacher to a student who receives a grade below 75 in any subject in any quarter." This policy guidelines outlines the need to combat academic underachievement by providing learners with sufficient intervention. In addition, it emphasizes inclusive education. As a result, no student will be left behind because individualized instructions and interventions will be provided.

Educational games are already part of classroom teaching. Falciani (2021), explained that game-based learning, is essentially a game, and games are one of the earliest learning activities; infants and children play games to discover the world and to learn. Game-based learning is a strategy that employs the concept of a game to achieve specific knowledge, skill, or attitude-based learning objectives. Games provide instant gratification, which can be a swift respite for those leading demanding lives, whether as students or at work. Roland (2016), stated that laying games can trigger the release of dopamine in the brains of students when they achieve a goal, whether they are playing a learning game or a game for enjoyment outside of school. Dopamine is a neurotransmitter that regulates the brain's reward and pleasure centers. This can help students appreciate the game and develop a lasting interest in the topic they are studying. In addition, it can encourage them to seek out problem-solving activities outside of video games.

Given the various advantages of incorporating games into education, the researcher wished to develop and validate a game-based instructional material that would aid teachers in preparing lesson activities and spare students the stress brought on by the new norm in education. In addition, the researcher wants the students to realize that education will always be as enjoyable as it should be even in these difficult times. This study is an initial attempt to develop and validate a game-based instructional material that will ease the teachers' workload in developing ready to teach instructional materials. The material will also help increase the students' participation in class through its various game-based activities, thus making teaching and learning more enjoyable for both teacher and student.

Theoretical Framework

This study is anchored on Smith and Ragan's instructional design theory. As cited by Birgili (2019), this is focused on instructional strategies providing enough support for learners in a child-friendly and non-

threatening environment to acquire learning with a limited and acceptable amount of frustration and anxiety. It includes the entire process of analyzing instructional materials. According to the theory, a particular knowledge area of a learning task should move towards progress.

It includes three phases: analysis, strategy development, and evaluation. An analysis is the first step where students' data are treated for students' grouping based on their reading level. The strategy development phase includes the initial planning for the module design. Lastly, the evaluation phase includes conducting a formative evaluation of the instructional material for revisions and validation.

The present study is anchored on the abovementioned theory since it focused on different phases: analysis, strategy development, evaluation, wherein the present study's main objective is to develop and validate a game-based instructional material.

Another model that serves as a basis for the study is the ADDIE Model Instructional Design. Cullata (2013), stated that this is the systematic approach to the Analysis, Design, Development, Implementation, and Evaluation of learning materials and activities. It represents a dynamic and flexible guideline for building effective training and performance support tools.

The analysis phase is the foundation for all other phases of instructional design. During this phase, one must identify and define the problem, identify the source of the problem, and determine possible solutions. Actions must meet what the learners really need.

The design phase involves using the outputs from the analysis phase to plan a strategy for the development of the instruction. It will be the basis for the development of the next stage in making instruction. During this phase, one must outline how to reach the instructional goals determined during the analysis phase and expand the instructional foundation.

The development phase builds on both the analysis and design phases. This phase aims to generate the lesson plans and lesson materials. During this phase, one will develop the instruction, all media used in the instruction, and any supporting documentation. This may include hardware (simulation equipment) and software (computer-based instruction).

Evaluation is the phase that measures the effectiveness and efficiency of the instruction. Evaluation should occur throughout the entire instructional design process – between phases and after implementation.

This theory presents the different phases on how to create an instructional material. The model has phases that are interconnected to each other. The study is anchored to this theory because there will also be phases that need to be completed to have a validated instructional material. The game-based instructional material is designed for English 2 teachers, whose pupil's range in age from 7 to 8 years old. According to Piaget's Theory of Cognitive Development, the Concrete Operational Stage, which occurs between the ages of seven and eleven, is the third stage of cognitive development. Piaget viewed the concrete stage as a significant turning point in the cognitive development of a child, as it marks the beginning of logical or operational thought. This means the child can solve problems internally rather than physically try things out in the real world. (Cherry, 2022)

The researcher's aim is to develop a game-based instructional material that is developmentally appropriate to the learners. The theories mentioned are relevant to the current study because they serve as the guide of the researcher in crafting concepts and activities that will be beneficial to the learners' needed skills that is very crucial to their development.

Objectives of the Study

The main objective of this study is to develop and validate PAGE: A Game-Based Instructional Material in English 2. It is the intention of the study to produce an instructional material that will help the teachers prepare lesson activities that are interactive and enjoyable to use for the students.

At the end of this study, the following objectives are expected:

1. Determine the level of validity of the developed of game-based instructional material in English 2 as rated by the proficient teachers in terms of its;

- 1.1 Objectives
- 1.2 Targeted Learning Competency
- 1.3 Content
- 1.4 Game-based Activities and Assessment; and
- 1.5 Ease of Use
2. Determine the level of validity of the developed of game-based instructional material in English 2 as rated by the highly proficient teachers in terms of its;
 - 2.1 Objectives
 - 2.2 Targeted Learning Competency
 - 2.3 Content
 - 2.4 Game-based Activities and Assessment; and
 - 2.5 Ease of Use
3. Establish the significant difference between the assessment of highly proficient teachers and proficient teachers regarding the level of validity of the components of the instructional material.

Results and Discussion

Table 1. Level of Validity of the Developed Game-Based Instructional Material in terms of Objectives

Statement	Mean (x)	Std. Dev.	VI
The objectives of the instructional material...			
1. are clearly stated on what is expected of the learner.	4.81	0.42	VMV
2. are aligned with the K-12 Learning Competencies.	4.85	0.36	VMV
3. are measurable and attainable.	4.89	0.31	VMV
4. are aligned to the learning tasks of the lessons.	4.84	0.37	VMV
5. focus on the development of critical and analytical thinking of the learner.	4.89	0.31	VMV
Overall Mean	4.85		Very Much Valid

The proficient teachers found that the objectives of the instructional material are very much valid as they were measurable and attainable, and the focus is on the development of critical and analytical thinking of the learner which obtained the highest mean score ($M=4.89$, $SD=0.31$), and were aligned with the K-12 learning competencies with a mean score of ($M=4.85$, $SD=0.36$). Meanwhile, the clarity of objectives on what is expected of the learner got the lowest score of responses ($M=4.81$, $SD=0.42$), yet it still got a very much valid interpretation. The proficient teachers believe that the objectives of the instructional material are measurable and attainable, and it promotes the use of the critical and analytical thinking of the learners.

The proficient teachers believed that the level of validity of objectives of the instructional material is very much valid, as shown in the overall mean of 4.85. This implies that the instructional material's objectives are clear which makes it easier to measure progress and success. The instructional material's clear objectives can make the teachers be focused on their goals, make sound decisions about their lessons, and increase the chances of learning success.

According to Chatterjee and Corral (2017), learning objectives are clearly written, specific statements of observable learner behavior or action that can be measured upon completion of an educational activity. They are the foundation for instructional alignment whereby the learning objectives, assessment tools, and instructional methods mutually support the desired learning outcome. A well-written learning objective outlines the knowledge, skills and/or attitude the learners will gain from the educational activity and does so in a measurable way.

Table 2. Level of Validity of the Developed Game-Based Instructional Material in terms of Targeted Learning Competency

Statement	Mean (x)	Std. Dev.	VI
The targeted <i>learning competency of the instructional material...</i>			
1. has lessons and activities focused to attain learning in different learning competencies.	4.80	0.42	VMV
2. identifies the purpose of each lesson and activity.	4.81	0.39	VMV
3. contains important goals that learners need to achieve at the end of the lesson.	4.91	0.29	VMV
4. presents goals that are connected to each lesson.	4.82	0.39	VMV
5. clearly states and can easily be achieved throughout the lesson.	4.88	0.32	VMV
Overall Mean	4.84		Very Much Valid

Table 2 revealed that the proficient teachers viewed that the targeted learning competencies of the instructional material contains important goals that learners need to achieve at the end of the lesson with the highest score of (M=4.91, SD=0.29), as it is also clearly stated and can easily be achieved throughout the lesson with a score of (M=4.88, SD=0.32). While the instructional material's targeted learning competencies has lessons and activities focused to attain learning in different learning competencies got the lowest mean score of responses (M=4.80, S=0.42), and still remarked as very much valid.

The overall mean of 4.84 implies that the proficient teachers find that the level of validity of the targeted learning competencies of the instructional material is very much valid. It implies that the targeted learning competencies also ensure consistency and coherence in the learning process. This means all learners are held to the same standards and expectations, and their progress toward these competencies can be objectively measured and evaluated.

The researcher made sure that the instructional material will make the students achieve the targeted learning competencies at the end of every lesson. As Ereño and Benavides (2022) elaborated, competencies assist students in integrating and broadening their knowledge, thought processes, and abilities. Students acquire and implement competencies through subject-area content and learning experiences in the classroom.

Table 3. Level of Validity of the Developed Game-Based Instructional Material in terms of Content

Statement	Mean (x)	Std. Dev.	VI
The contents <i>of the instructional material...</i>			
1. provide clear and precise directions with descriptive direction.	4.82	0.39	VMV
2. are made interesting with the use of image displays and interactive lesson discussion.	4.65	0.60	VMV
3. are appropriate in the lessons discussed.	4.73	0.57	VMV
4. are arranged according to the level of difficulty.	4.79	0.43	VMV
5. provide learning activities and assessments that relate directly to the contents.	4.72	0.58	VMV
6. motivate the learners to acquire their needed skills.	4.76	0.47	VMV
7. provide learning tasks that relates directly to the objectives of the lessons.	4.77	0.46	VMV
Overall Mean	4.75		Very Much Valid

Table 3 shows that the proficient teachers found the contents of the instructional material very much

valid because it provides clear and precise directions with descriptive direction with the highest score of ($M=4.82$, $SD=0.39$), it is also arranged according to level of difficulty with a score of ($M=4.79$, $SD=0.43$). Meanwhile the instructional material's content that are made interesting with the use of image displays and interactive lesson discussion got the lowest mean score of responses ($M=4.65$, $S=0.60$), and still remarked as very much valid.

The proficient teachers find the contents with clear and precise directions with descriptive directions because the researcher made sure that the teachers will not encounter confusion in executing the lessons. The overall mean of 4.75 implies that the proficient teachers find that the level of validity of the contents of the instructional material is very much valid. The results imply that the content of the instructional material is explicit, accurate, and to the point. There are no extra details or information; everything there is essential to understanding the topic. This makes it easier for students to pay attention to the most critical parts of the lesson and not get distracted by other things.

Table 4. Level of Validity of the Developed Game-Based Instructional Material terms of Game-based Activities and Assessment

Statements	Mean (x)	Std. Dev.	VI
The game-based activities of the instructional material...			
1. have topics that are appealing to the learner's interests.	4.88	0.35	VMV
2. contain activities that are engaging and up to date.	4.92	0.28	VMV
3. are aligned to the K-12 English 2 curriculum.	4.94	0.25	VMV
4. provide various opportunities for the pupils to practice the lesson they learned.	4.85	0.35	VMV
5. are arranged according to the level of difficulty to maintain the pupils' interest in each lesson.	4.85	0.38	VMV
6. use appropriate guide and practice in monitoring activities that are adequate for learner's interests.	4.90	0.30	VMV
7. contain challenging activities that promote the use of the learners' creativity, intelligence and ability.	4.94	0.25	VMV
8. have activities and performance tasks suited and fitted to the learners' interests and needed skills.	4.85	0.36	VMV
9. can be easily modified depending on the learners' needs and capabilities.	4.90	0.30	VMV
10. are in sequence to meet the pre-requisite skills of the learners according to their development needs.	4.90	0.33	VMV
Overall Mean	4.90		Very Much Valid

The table shows that the game-based activities of the instructional material were aligned to the K-12 English 2 curriculum which got the highest score of responses of ($M=4.94$ $SD=0.25$) and were interpreted as very much valid. The proficient teachers also found that the material provides the students with challenging activities that promote the use of the learners' creativity, intelligence, and ability with a score of ($M=4.94$, $SD=0.25$). The material also contains activities that are engaging and up to date with a score of ($M=4.92$, $SD=0.28$). Meanwhile, the instructional material's game-based activities provide various opportunities for the pupils to practice the lesson they learned, are arranged according to the level of difficulty to maintain the pupils' interest in each lesson, have activities and performance tasks suited and fitted to the learners' interests and needed skills got the lowest score of ($M=4.85$, $SD=0.36$), yet still interpreted as very much valid.

The results showed that the game-based activities and assessments of the instructional material are found very much valid by the proficient teachers with an overall score of 4.90. The result imply that the

instructional material developed follows the learning objectives and outcomes outlined in the curriculum. It ensures that the activities are relevant and meaningful to the discussed topic and help learners develop the knowledge, skills, and abilities expected of them.

The result is in line with the study of Velasquez (2020) which demonstrates the potential of GBL as an assessment instrument and its influence on academic performance, which could be utilized to design an efficient evaluation framework for a GBL intervention.

Table 5. Level of Validity of the Developed Game-Based Instructional Material in terms of Ease of Use

Statement	Mean (x)	Std. Dev.	VI
<i>The instructional material...</i>			
1. is easy to analyze because of the clear directions of use.	4.89	0.31	VHA
2. contains game-based activities that are engaging and easy to execute.	4.86	0.34	VHA
3. is in sequence to meet the skills of the learners' development needs.	4.83	0.38	VHA
4. has activities with clear and step-by-step procedure.	4.90	0.30	VHA
5. can be easily modified depending on the learner's needs and capabilities.	4.91	0.29	VHA
6. contains visuals that fit the level of interest, knowledge, and skills of the learners.	4.89	0.31	VHA
7. uses appropriate text, font size and well-defined language which are easy to understand.	4.84	0.37	VHA
Overall Mean	4.87		Very Highly Accessible

It is shown in table 5 that the instructional material can be easily modified depending on the learner's needs and capabilities which got the highest score of responses of (M=4.91, SD=0.29) from the proficient teachers, it also provides activities with clear and step-by-step procedure with a score of (M=4.90, SD=0.30) interpreted as very highly accessible. On the other hand, the instructional material's sequence to meet the skills of the learners' development needs got the lowest score of (M=4.83, SD=0.38) and is interpreted as very highly accessible.

Proficient teachers find the instructional material very highly accessible with an overall mean score of 4.87. The respondents find the instructional material easy to use because the instructional material is flexible and can adapt to meet the needs of individual learners as it can be easily modified. The clear and step-by-step procedures make it easier for teachers or facilitators to support learners and provide feedback on their progress.

Table 6. Level of Validity of the Developed Game-Based Instructional Material in terms of Objectives

Statement	Mean (x)	Std. Dev.	VI
<i>The objectives of the instructional material...</i>			
1. are clearly stated on what is expected of the learner.	4.75	0.61	VMV
2. are aligned with the K-12 Learning Competencies.	4.79	0.58	VMV
3. are measurable and attainable.	4.84	0.56	VMV
4. are aligned to the learning tasks of the lessons.	4.80	0.57	VMV
5. focus on the development of critical and analytical thinking of the learner.	4.84	0.56	VMV
Overall Mean	4.80		Very Much Valid

The highly proficient teachers found that the objectives of the instructional material are measurable and attainable, and the focus is on the development of critical and analytical thinking of the learner which obtained the highest mean score ($M=4.84$, $SD=0.56$) as they are aligned to the different learning tasks with a score of ($M=4.80$, $SD=0.57$) interpreted as very much valid. Meanwhile, the clarity of objectives on what is expected of the learner got the lowest score of responses ($M=4.75$, $SD=0.61$), yet it still got a very much valid interpretation.

The highly proficient teachers believed that the level of validity of objectives of the instructional material is very much valid, as shown in the overall mean of 4.80. This implies that the learning goals of the instructional material are meant to improve the learner's ability to analyze, evaluate, and interpret information and to help them develop reasoning skills and ways to solve problems. Measurable and attainable goals help make sure that goals are clear, concrete, and achievable, and that progress can be tracked and evaluated along the way.

The result of the study agrees with the study conducted by Osueke and Mekonnen (2018). The authors found that learning objectives should align with instruction and assessment to enhance student performance. Students find learning objectives helpful for focusing and organizing their studying but may need additional help from instructors to self-direct their learning. Students who do not use learning objectives often find other resources, such as case studies, more helpful. Alignment between instructional activities and learning objectives can provide educational advancements to students.

Table 7. Level of Validity of the Developed Game-Based Instructional Material in terms of Targeted Learning Competency

Statement	Mean (x)	Std. Dev.	VI
<i>The targeted learning competency of the instructional material...</i>			
1. has lessons and activities focused to attain learning in different learning competencies.	4.76	0.60	VMV
2. identifies the purpose of each lesson and activity.	4.77	0.59	VMV
3. contains important goals that learners need to achieve at the end of the lesson.	4.87	0.53	VMV
4. presents goals that are connected to each lesson.	4.79	0.58	VMV
5. clearly states and can easily be achieved throughout the lesson.	4.84	0.56	VMV
Overall Mean	4.80		Very Much Valid

It is revealed in table 7 that the highly proficient teachers found the targeted learning competencies of the instructional material contain important goals that the learners need to achieve at the end of the lesson with the highest score of ($M=4.87$, $SD=0.53$), they are also clearly stated and can easily be achieved throughout the lesson with a score of ($M=4.84$, $SD=0.56$) interpreted as very much valid. While the instructional material's targeted learning competencies has lessons and activities focused to attain learning in different learning competencies got the lowest mean score of responses ($M=4.76$, $S=0.60$), and still remarked as very much valid.

The overall mean of 4.80 implies that the highly proficient teachers find that the level of validity of the targeted learning competencies of the instructional material is very much valid. It means that the instructional material was designed so that learners can quickly achieve the stated competencies throughout the lesson. It also includes opportunities for learners to practice and apply the targeted competencies through activities and assessments.

The results is in agreement with Abouchacra (2022), whom defined that a learning competency, is a general statement that characterizes the application of desired knowledge, skills, behaviors, and abilities.

Table 8. Level of Validity of the Developed Game-Based Instructional Material in terms of Content

Statement	Mean (x)	Std. Dev.	VI
The contents of the instructional material...			
1. provide clear and precise directions with descriptive direction.	4.77	0.59	VMV
2. are made interesting with the use of image displays and interactive lesson discussion.	4.60	0.73	VMV
3. are appropriate in the lessons discussed.	4.67	0.71	VMV
4. are arranged according to the level of difficulty.	4.76	0.60	VMV
5. provide learning activities and assessments that relate directly to the contents.	4.66	0.72	VMV
6. motivate the learners to acquire their needed skills.	4.72	0.63	VMV
7. provide learning tasks that relates directly to the objectives of the lessons.	4.74	0.63	VMV
Overall Mean	4.71		Very Much Valid

The highly proficient teachers found that the contents of the instructional material provide clear and precise directions with descriptive direction with the highest score of ($M=4.77$, $SD=0.59$), it is also found the material motivates the learners to acquire their needed skills with a score of ($M=4.72$, $SD=0.63$) interpreted as very much valid. While the instructional material's content that are made interesting with the use of image displays and interactive lesson discussion got the lowest mean score of responses ($M=4.60$, $S=0.60$), and still remarked as very much valid.

The overall mean of 4.71 implies that the proficient teachers find that the level of validity of the contents of the instructional material is very much valid. By using clear, precise, and descriptive language, the instructional material can help learners better understand the lesson and feel more confident in their ability to use what they have learned. Learners can get the skills they need if they are motivated, and the content of instructional materials can help to foster a sense of intrinsic motivation and engagement that can help learners continue to succeed and achieve.

According to Bates (2015), the majority of professors and instructors continue to prioritize content. Facts, ideas, principles, evidence, and descriptions of processes or procedures comprise the content. A considerable amount of time is spent discussing what content should be included in the curriculum, what must be addressed in a course or program, what content sources, such as textbooks, students should utilize, etc. Teachers and instructors are frequently under pressure to cover the entire curriculum in the allotted time. Particularly, lecturing or in-person classes continue to be the primary means of organizing and conveying content.

Table 9. Level of Validity of the Developed Game-Based Instructional Material in terms of Game-based Activities and Assessment

Statements	Mean	Std.	VI
The game-based activities of the instructional material...	(x)	Dev.	
1. have topics that are appealing to the learner's interests.	4.84	0.57	VMV
2. contain activities that are engaging and up to date.	4.86	0.54	VMV
3. are aligned to the K-12 English 2 curriculum.	4.89	0.52	VMV
4. provide various opportunities for the pupils to practice the lesson they learned.	4.82	0.56	VMV
5. are arranged according to the level of difficulty to maintain the pupils' interest in each lesson.	4.81	0.58	VMV
6. use appropriate guide and practice in monitoring activities that are adequate for learner's interests.	4.85	0.55	VMV
7. contain challenging activities that promote the use of the learners' creativity, intelligence and ability.	4.89	0.52	VMV
8. have activities and performance tasks suited and fitted to the learners' interests and needed skills.	4.81	0.57	VMV
9. can be easily modified depending on the learners' needs and capabilities.	4.85	0.55	VMV
10. are in sequence to meet the pre-requisite skills of the learners according to their development needs.	4.87	0.55	VMV
Overall Mean	4.85		Very Much Valid

The results showed that the game-based activities and assessments of the instructional material are found very much valid by the highly proficient teachers with an overall score of 4.85. The results show that the instructional material ensures that learners engage in meaningful and relevant learning experiences that promote their growth and development. By aligning activities with the curriculum, challenging learners to use their creativity and problem-solving skills, and sequencing activities to meet their developmental needs, the material can help educators to create a learning environment that supports learners' success and achievement.

EdTech Review (2013), states that in an effective game-based learning environment, students pursue a goal while choosing actions and experiencing their consequences. Making mistakes in a risk-free environment and actively learn and practice the correct way to do things through experimentation. This keeps students intensely engaged in practicing behaviors and thought processes that are easily transferable to the real world.

Table 10. Level of Validity of the Developed Game-Based Instructional Material in terms of Ease of Use

Statement	Mean (x)	Std. Dev.	VI
<i>The instructional material...</i>			
1. is easy to analyze because of the clear directions of use.	4.85	0.55	VHA
2. contains game-based activities that are engaging and easy to execute.	4.82	0.56	VHA
3. is in sequence to meet the skills of the learners' development needs.	4.80	0.57	VHA
4. has activities with clear and step-by-step procedure.	4.85	0.54	VHA
5. can be easily modified depending on the learner's needs and capabilities.	4.85	0.55	VHA
6. contains visuals that fit the level of interest, knowledge, and skills of the learners.	4.85	0.55	VHA
7. uses appropriate text, font size and well-defined language which are easy to understand.	4.79	0.58	VHA
Overall Mean	4.83		Very Highly Accessible

The highly proficient teachers find the instructional material very highly accessible with an overall mean score of 4.83. Because of this, the percentage risk of confusion or errors is minimal. Learners can focus on the learning goals and objectives of the activity. The respondents find the instructional material very easy to use. For teachers who are already stressed with loads of work, an instructional material that is very easy to use is important. The very same reason on why the researcher made sure that the instructional material will be very easy to use.

Table 11. T-test of Difference between the Level of the Validity of the Developed of Game-Based Instructional Material

Level of the Validity of the Developed of Game-Based Instructional Material in English 2	Group of Respondents	Mean	Standard Deviation	Mean Difference	Computed t-value	Critical t-value	VI
Objectives	Proficient Teachers	4.85	0.36	0.05	1.66299	1.9796	NS
	Highly Proficient Teachers	4.80	0.20				
Targeted Learning Competency	Proficient Teachers	4.84	0.37	0.04	1.10733	1.9796	NS
	Highly Proficient Teachers	4.80	0.28				
Content	Proficient Teachers	4.75	0.50	0.04	1.09635	1.9796	NS
	Highly Proficient Teachers	4.71	0.34				
Game-based Activities and Assessment	Proficient Teachers	4.90	0.31	0.05	0.5285	1.9796	NS
	Highly Proficient Teachers	4.85	0.26				
Ease of Use	Proficient Teachers	4.87	0.33	0.01	0.019462	1.9796	NS
	Highly Proficient Teachers	4.88	0.34				

Table 11 shows the significant difference between the level of the validity of the developed game-based instructional material in English 2 as rated by the proficient teachers and highly proficient teachers.

It is revealed in table 11 that there is no significant difference on the ratings made by the proficient and highly proficient teachers relative to the game-based instructional material, in terms of objectives, targeted learning competency, content, game-based activities and assessments, and ease of use. The computed t-values did not exceed the critical t-values.

From the above findings, it is inferred that there is no significant difference in the ratings of the respondents. The game-based instructional material was made to make teaching and learning easy and enjoyable. All the instructional material's components provide a clear vision of what the learners will achieve after each topic. The game-based instructional material is ready to be utilized. Thus, the null hypothesis was accepted.

The result of the study is in agreement with Carillaga (2022), who conducted a study primarily concerned with validating an enhancement tool for reading comprehension skills for grade 7 learners, whose main objective is to develop the learners' reading ability and reading comprehension skills. The study results showed that the mean level between the evaluation of highly proficient teachers and proficient teachers in terms of objectives, focus, skills, practice, and appeal to target users shows almost the same validation level—specifically, there is no significant difference in the rating given by the teachers and master teachers. This proved that the characteristics of enhancement tool were acceptable to the evaluators. The present study also

found no significant difference between the response of the evaluators, this also proves that the game-based instructional material is acceptable and valid to the evaluators.

Summary of Findings

The study's general objective was to develop and a game-based instructional material in English 2. There are four variables that were considered in developing the material, objectives, targeted learning competencies, content, game-based activities and assessment.

A researcher-made questionnaire in the form of a checklist was the main instrument used to collect data in this research. The questionnaire was checked and validated before it was distributed to the respondents.

The research findings were summarized based on the data gathered by the researcher.

The mean level of validity of the game-based instructional material in terms of objectives is very much valid based on the validation results of both proficient teachers and highly proficient teachers. The mean level of validity of the game-based instructional material in terms of targeted learning competency is very much valid based on the validation results of both proficient and highly proficient teachers. The mean level of validity of the game-based instructional material in terms of content is very much valid based on the validation results of the proficient and highly proficient teachers. The mean level of validity of the game-based instructional material in terms of game-based activities and assessment is very much valid based on the validation results of both proficient and highly proficient teachers. The mean level of validity of the game-based instructional material in terms of ease of use is very highly accessible based on the validation results of both proficient and highly proficient teachers.

There is no significant difference on the ratings made by the proficient and highly proficient teachers relative to the game-based instructional material, as revealed in the responses which shows the objectives, targeted learning competency, content, game-based activities and assessments, and ease of use.

The game-based instructional material was made to make teaching and learning easy and enjoyable. All the instructional material's components provide a clear vision of what the learners will achieve after each topic. The game-based instructional material is ready to be utilized. Thus, the null hypothesis was accepted.

Conclusions

In the light of the summary of findings, the following conclusions were drawn.

The objectives, targeted learning competency, content, game-based activities and assessment of the game-based instructional material was very much valid and the ease of use of the material was very highly accessible. The game-based instructional material was very highly acceptable, and it was very highly usable to the evaluators. The developed instructional material is now ready for utilization by both the teachers and students.

Recommendations

Based on the foregoing findings and the conclusion of the study, the following recommendations are offered:

1. It is recommended for teachers to utilize the instructional material as it can be a great help to improve learners' participation in class.
2. The teachers may revise and modify the activities of the materials based on the learners' development.
3. Grade 2 learners are recommended to use this material so that they will know that learning is also fun with the right activities.

4. It is recommended for parents to provide assistance to their children when it comes to interactive learning as most of the game-based activities in the instructional material can also be done at home.

5. It is recommended that the future researchers provide more activities that are relevant to the needs and learning competencies of the learners.

References

- Abouchacra, Z. (2022). Learning: Competencies, Objectives, or Outcomes? D2L. <https://www.d2l.com/blog/learning-competencies-objectives-outcomes/>
- Adonis, M. (2021) Inquirer.net, "Flaws aside, online learning takes toll on students' mental health" Retrieved from: <https://newsinfo.inquirer.net/1417703/flaws-aside-online-learning-takes-toll-on-students-mental-health>
- Bates, A. (2015, April 5). A.4 Managing content. Pressbooks. <https://opentextbc.ca/teachinginadigitalage/chapter/5-4-managing-content/>
- Birgili, B. (2019) "Comparative Reflection on Best Known Instructional Design Models: Notes from the Field," Current Issues in Emerging eLearning: Vol. 6 : Iss. 1 , Article 5.
- Carillaga, J. M. (2022). Validation Of Enhancement Tool For Reading Comprehension Skill. EPRA Journals. <https://eprajournals.com/IJMR/article/7243>
- Chatterjee, D., & Corral, J. (2017). How to Write Well-Defined Learning Objectives. The journal of education in perioperative medicine : JEPM, 19(4), E610.
- Cherry, K. (2022). What is Piaget's theory of cognitive development? Verywell Mind. Retrieved from <https://www.verywellmind.com/piagets-stages-of-cognitive-development-2795457>
- Cullata, R. (2018). ADDIE Model - InstructionalDesign.org. InstructionalDesign.org. <http://www.instructionaldesign.org/models/addie/>
- EdTech Review (2013) What is GBL (Game-Based Learning)? Retrieved from: <https://edtechreview.in/dictionary/298-what-is-game-based-learning>
- Ereño, R. & Benavides, N. (2022). Reflections on the Least Learned Competencies in Mathematics. United International Journal for Research and Technology (UIJRT), 3(8), pp. 180-187
- Falciani, I. (2021). Game-Based Learning: What Is It? GBL vs Gamification: Types and Benefits. Europass Teacher Academy. <https://www.teacheracademy.eu/blog/game-based-learning/>
- Jackaria, P. M. (2022). Elementary teachers' experiences and instructional challenges during the return to school after the COVID-19 closure in the Philippines. Zenodo (CERN European Organization for Nuclear Research). <https://doi.org/10.5281/zenodo.6955920>
- Maliqi, A. and Borincaj-Cruss, I. (2015) The Influence of Teachers on Increasing Student's Motivation. Psychology, 6, 915-921. doi: 10.4236/psych.2015.68089.

- Obana, J. (2020) What will schools look like under the 'new normal'? The Manila Times May 13, 2020, Retrieved from: <https://www.manilatimes.net/2020/05/13/business/columnists-business/what-will-schools-look-like-under-the-new-normal/724556/>
- Osueke, B., Mekonnen, B., & Stanton, J. V. (2018). How Undergraduate Science Students Use Learning Objectives to Study. *Journal of Microbiology & Biology Education*, 19(2). <https://doi.org/10.1128/jmbe.v19i2.1510>
- Pokhrel, S., & Chhetri, R. (2021). A Literature Review on Impact of COVID-19 Pandemic on Teaching and Learning. *Higher Education for the Future*, 8(1), 133141. <https://doi.org/10.1177/2347631120983481>
- Roland, J. (2016). Does Gamification Education Really Improve Learning? *Samsung Business Insights*. <https://insights.samsung.com/2016/07/19/does-gamification-education-really-improve-learning/>
- Satrio, Y., Wardoyo, C., Sahid, S., Fauzan, S., & Nuris, D.,. (2021). The Effectiveness of Educational Games on Post-Pandemic Learning. *KnE Social Sciences*. 10.18502/kss.v5i8.9388.
- Ucus, S. (2015) Elementary School Teachers' Views on Game-based Learning as a Teaching Method. Retrieved from <http://dx.doi.org/10.1016/j.sbspro.2015.04.216>
- Velasquez, R. J. R. (2022). Game-Based Online Platform: Learning Tool In Enhacing Performance In English 10. *International Journal of Research Publications*. <https://doi.org/10.47119/ijrp1001011520223236>
- Zhang, F. (2018, March 1). The Application of Game-based Approach in Primary School English Teaching. *Proceedings of the 2nd International Conference on Economics and Management, Education, Humanities and Social Sciences (EMEHSS 2018)*. <https://doi.org/10.2991/emehss-18.2018.120>