

Web-Based Assessment Tools in Araling Panlipunan 10

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Abstract

This study aimed to determine the effect of using the Web-Based Assessment Tool in Araling Panlipunan 10. The descriptive method of research was utilized. There were 86 learners who served as respondents from Linga National High School. It sought to answer the following queries; (1) the status of using web-based assessment tools in Araling Panlipunan 10 in terms of online quizzes, digital educational games, and interactive videos?; (2) the level of students' Performance in terms of diagnostic test and summative test?; (3) the significant difference on the Performance of the students in terms of diagnostic test and summative test?; (4) the significant effect of using web-based assessment tool on the students' Performance.

Based on the data gathered, the following are the findings of the study. The status of web-based assessment tools in Araling Panlipunan 10 in terms of online quizzes, digital educational games and interactive videos were "very high". The level of student's performance in diagnostic test was "satisfactory" while the student's performance in summative test was "outstanding".

The findings on the third question revealed that the diagnostic and summative assessments have a significant difference. Meanwhile, the finding on the fourth question showed that web-based assessment tools were observed to have a significant effect to the performance of the students for online quizzes, digital educational games, and interactive videos.

Based on the data gathered, the conclusion derived was there is a significant difference between the diagnostic and summative assessment. Therefore, the null hypothesis is rejected. Furthermore, web-based assessment tools were observed to have a significant effect to the performance of the students based on the computed t-values for online quizzes, digital educational games, and interactive videos. Thus, the null hypothesis is also rejected.

In view of the findings and conclusions of the study, the following recommendations were given: Web-based assessment tools can be used as a benchmarking tool to be utilized by teachers and students within the district; Facilitators are encouraged to adopt the proposed method in teaching various academic subject to achieve their learning objectives and incorporate the web-based assessment tools in the School Improvement Plan (SIP) considering its advantages to improve the students' performance.

Keywords; Online Quizzes, Digital Educational Games, Interactive Videos, Diagnostic Test and Summative Test

Introduction

The COVID-19 has caused schools all over the world to close as the new school year begins in 2020-2021. This pandemic is now widely regarded as the primary driving force behind recent curriculum changes. Actually, it was the modes of implementation that changed, not the curriculum. Several basic education schools in the Philippines have completed their dry runs for blended/distance learning. The schools focused their preparations on the various local realities in order to assist teachers, parents, and students in the delivery of basic education as the country transitioned into the new normal. In the absence of face-to-face classes, Education Secretary Leonor Briones stated that the Department of Education will "continue to provide learning opportunities to our children without requiring them to attend school." According to a DepEd poll, modular remote learning is the most preferred learning delivery method among parents, so many schools have

chosen this technique. Some educators, however, have taken steps and provided necessary interventions to meet the needs of students in terms of meeting educational goals and lesson objectives. With the rise of e-learning, in which instruction is transmitted wirelessly and via digital channels, education is undergoing significant transformations. Some of these include participating in online and offline events organized and offered by the teacher, as well as conducting Online Kamustahan. A variety of internet technologies can be used to improve teaching and learning practices. It is critical, however, to select those that are best suited to the learning objectives of the class. It is important to realize that the internet has become ingrained in daily lives, and classroom instruction should reflect and respect this.

Incorporating an online activity into a class can benefit both teachers and students. However, the effectiveness of the activity and innovation is usually defined by how well they are integrated into the learning experience and how relevant they are for the learning context. Web-based assessment tools, for example, will be supplied as a supplement to the modular learning paradigm. Web-based assessment tools make the internet a viable educational tool by providing a convenient method for designing instruction.

Because teachers' on-the-spot support is not provided, learning on the internet is typically a passive experience; however, it ensures the effectiveness of the educational materials provided through the use of online exams, which allow learners to track their progress throughout the learning process. The researcher decided to make a study on Web-Based Assessment Tools in Araling Panlipunan 10. This study was made to improve students' performance and to look for the significance of using Web-Based Assessment Tools and will contribute to better understanding of how it helps to increase students' performance.

Background of the Study

Covid-19 pandemic as a social issue greatly affect people's lives in general. The public health emergency brought about by COVID-19 calls for the Department of Education (DepEd) to be innovative and resourcefulness in delivering quality education, accessible, relevant, and liberating education. In response to this emergency, DepEd developed the Basic Education Learning Continuity Plan (BE-LCP) to ensure that learning opportunities are provided to our learners in a safe manner, through different learning delivery. In line with this, the Department, through its Regional and Schools Division offices undertake the urgent and necessary development, production and provision of learning resources, in accordance with its mandate.

According to DepEd Order No. 18, s. 2020, entitled Policy Guidelines for the Provision Learning Resources in the Implementation of the Basic Education Learning Continuity Plan (BE-LCP), it mandates schools to provide learning resources in the implementation of BE-LCP. It sets forth Flexible Learning Option (FLOs), which includes alternative delivery modes and its corresponding learning resources that are responsive to the need, context, circumstances and diversity of learners. This policy guidelines aim to set the standards and specifications in the provision of learning resources in the implementation of the BE-LCP. The learning resources serve as learning toolkits for learners where procedures, instructions, and other details are provided to aid the learning process, with the supervision of responsible adults along with the continuous monitoring and guidance of teachers.

In this regard, web-based assessment tools will offer huge opportunities for learning and access to a vast amount of knowledge and information. The role of teachers is to ensure that the learning environment provided takes account of learners' needs and ensures that they are effectively prepared and supported. Online learning has advantages, but web-based learning should not always be viewed as the method of choice because barriers can easily detract from student learning. Web assessment tools may increase learner motivation, which may benefit both the teaching and learning processes. The technology must therefore be applied appropriately and not used simply because it is available and new or because students and teachers have particular expectations of this means of course delivery.

However, academic performance involves factors such as intellectual level, personality, motivation, skills, interests, study habits, self-esteem, or the teacher-student relationship. When a gap between the academic performance and the student's expected performance occurs, it refers to a diverging performance. Unsatisfactory academic performance is the one that is below the expected performance. Sometimes it can be related to teaching methods.

Based on the above observations and experiences, the researcher believes that this study using web-based assessment tools will help to enhance the performance of the Grade 10 students in Linga National High School toward their Araling Panlipunan 10 subject. The result of this study may also bring high-quality education to the institution that will eventually lead to a positive performance of the school in general. Adapting it by other related subjects, as well as other schools may also be done after the conduct and implementation of this research.

Theoretical Framework

In education, web-based assessment tools can be used as a learning tool to support formal programs and as a means of delivering online learning. The students' habit of using the digital platforms can be used to compliment the traditional learning methods. Specifically, designed digital learning platform can support the learning with convenience of time, place, and pace. They can increase the engagement of students and produce higher learning outcomes with increased satisfaction and competence. With a number of embedded features, Web-Based platforms can deliver the convenience and flexibility in learning environment to compliment the traditional learning pedagogies.

According to Nycz and Cohen (2017), E-learning is important for building a technologically literate workforce as well as for meeting society's continuous need for rapid life-long learning delivered in increasingly more convenient forms. Web-Based enabled learning environment provide active and self-directed learning with enhanced learning materials. E-learning is underway of its 3rd generation, incorporated by socialization, collaboration, project-based learning, reflective practices via tools like online quizzes, digital games, videos and etc. E-learning systems incorporate technology, pedagogy and individuals to achieve effectiveness. Learning facilitated by technologies, transforms the concept of teaching and learning and It redefines the role of a teacher and transforms the meaning and content of the learning process.

According to Jean Piaget as cited by Jonassen (2015), pointed out that Constructivism proposes that learning environments should support multiple perspectives or interpretations of reality, knowledge construction, and context-rich, experience-based activities. The rapid development of increasingly powerful computer and communication systems has great implications for the constructivist approach to education. It offers a tremendous amount of information, tools for creativity and development, and various environments and forums for communication. Within a student-centered curriculum based on student performance or research, new technology tools provide many opportunities for students and teachers to build knowledge in an engaged setting. Constructivist approach is fostered by web-based instruction, where learning is a more authentic and self-directed experience.

Cognitive Flexibility Theory is proposed and advocated by Spiro and Jehng (2018). This theory comes from cognitive theory represented by Jean Piaget (1898-1980), Jerome Seymour Bruner (1915-), and David P. Ausubel (1918-2008). Its adherents believe that the learning process takes place in complex and ill-structured domains.

Furthermore, cognitive flexibility theory holds that learning must have its specific environment, but it needs informational support from various fields. Instruction must be able to provide students with a variety of learning scenarios so that students have a vast space to construct their knowledge and can take appropriate strategies to learn in a specific context. This theory greatly influences network and interactive technologies and has been widely applied in teaching learning process.

The mentioned theories are related foundations of the current research due to the vast information presented tackling the advantages of varied learning environment apart from the traditional way of instruction, wherein beneficial to the learners. They also considered using technology-based instruction as foundation of students' learning. In this regard, web-based assessment tools place its importance.

Statement of the Problem

The purpose of this study aims to determine the effectiveness of Web-Based Assessment tools in Araling Panlipunan in the student's performance.

The researcher specifically, sought answers to the following questions.

1. What is the status of using Web-Based Assessment Tools in Araling Panlipunan 10 terms of;
 - 1.1 Online Quizzes;
 - 1.2 Digital Educational Games; and
 - 1.3 Interactive Videos?
2. What is the level of students' performance in terms of:
 - 2.1 Diagnostic Test;
 - 2.2 Summative Test?
3. What is the significant difference on the performance of the students in terms of:
 - 3.1 Diagnostic Test;
 - 3.2 Summative Test?
4. Is there a significant effect of using Web-Based Assessment Tools in Araling Panlipunan 10 in the students' performance?

Research Methodology

Research Design

The research design used in this study was the descriptive research design in order to determine if the Web-based Assessment Tool affect the Students' Performance in Araling Panlipunan 10.

According to Alberto et al, (2011), descriptive research design is also known as statistical research, it describes data and characteristics about the population or phenomenon being studied. This research method is used for frequencies, averages and other statistical calculations. Often the best approach prior to writing descriptive research, is conducting a survey investigation. The subject is being observed in a completely natural and unchanged natural environment. It is often used as a pre-cursor to quantitative research designs, the general overview giving some valuable pointers as to what variables are worth testing quantitatively. Characteristic of this method can determine if the web-based assessment tools affect the students' performance in Araling Panlipunan 10. Information gathered will be used in order to test hypothesis concerning the current status of the study.

Respondent of the study

The respondents of the study were the eighty-six (86) students taken from two (2) sections of grade 10. These sections were Grade 10-Narra composed of 45 students and Grade 10-Acacia with 41 students.

The researcher used purposive sampling which is one of the types of non-probability sampling.

Purposive sampling targets a particular group of people. When the desired population for the study is rare or very difficult to locate and recruit for a study, purposive sampling may be the only option as claimed by Key (2000). It is also used to a specific group of individuals in achieving the desired goals.

A purposive sample is a type of selecting sample respondents in the deliberative and non-random style to achieve the desired goals. In a concentrated group, for instance, they may want to consciously seek out sample respondents of both ends of a spectrum as well as some in the middle to ensure that all viewpoints

are adequately represented. They might also preferentially recruit subjects who have the best knowledge and experience in an area. In addition to focus group studies, a purposive sample is often used in pilot studies. A purposive sample bonds the same weaknesses as a suitability sample and they will have difficulty making strong quantifiable inferences from such examples.

Research Procedure

The first step that the researcher has done was to formulate a thesis title suited to the problem that he observed and experienced. After the title had been finalized, the researcher started to construct chapter one, which consisted of the introduction, study background, theoretical framework, conceptual framework, hypothesis, scope and limitation, the significance of the study, and definition of terms. The researcher observed and asked his colleague and co-workers to ensure and determine the validity of the variables that he used in the study. After the variables were assessed and finalized, the researcher looked for suitable and connected related literature and research that would support his claims and further explain each of the variables he used. The researcher then determined the respondents and formulated a questionnaire as a checklist to collect and gather data from them (the respondents). The questionnaire was checked and validated. Followed by the distribution of the printed questionnaire with the guidance and approval of the head of the Department of Education Division of Laguna, District of Pila, and Linga National High School. Lastly, the researcher collected, tallied, analyzed, and interpreted the data before formulating the conclusion and recommendations.

Research Instrument

The researcher created a self-made questionnaire in the form of checklist and assessment test in collecting and gathering data. The questionnaire was divided into two parts.

Part I was the web-based assessment tools in terms of Online Quizzes, Digital Educational Games and Interactive Videos

Part II was the assessment test used to measure their index of mastery in Araling Panlipunan 10.

The questions were answered using a rating scale of 1-5 with the following interpretations.

Scale	Range	Remarks	Verbal Interpretation
1	4.21-5.00	Strongly Agree	Very High
2	3.41-4.20	Agree	High
3	2.61-3.40	Fairly Agree	Moderately High
4	1.81-2.60	Disagree	Low
5	1.00-1.80	Strongly Disagree	Very Low

The researcher utilized Kahoot, Quizziz, WordWall and Canva as part of the Web-Based Assessment Tools in Araling Panlipunan 10 to improve the Students' Performance. Assessments used were Diagnostic Test and Summative Test.

Statistical Treatment

After the retrieval, the responses of the subjects to the questionnaire will be tallied and treated according to the statistical treatment:

Weighted mean and standard deviation were used to determine the status of using Web-Based as Assessment Tool in Araling Panlipunan 10.

Weighted mean, standard deviation, frequency and percentage were used to determine the level of students' performance in terms of Diagnostic Test and Summative Test.

The f-test was used to determine the significant difference on the performance of the students in terms of Diagnostic Test and Summative Test.

The t-test was used to determine the significant effect on the student's performance after integrating Web-Based Assessment Tools in Araling Panlipunan 10.

Results and Discussion

This chapter deals with the presentation, analysis and interpretation of data. The data were presented following the order of the statement of the problem.

. Status of using Web-Based Assessment Tools

The status of using web-based assessment tools will be measured in terms of Online quizzes, Digital educational games and Interactive videos. The results were presented through the mean, standard deviation and verbal interpretation.

Table 1. Status of Using Web-Based Assessment Tools in Araling Panlipunan 10 in terms of Online Quizzes

STATEMENT	MEAN	SD	REMARKS
1. It is engaging and interactive which will aid and help students in understanding the topic.	4.71	0.48	Strongly Agree
2. It has questions that are easily understood, and the instructions are clearly stated.	4.84	0.43	Strongly Agree
3. It enhances the creative thinking of students, and the quizzes are user-friendly.	4.88	0.39	Strongly Agree
4. It helps students improve their capability to understand and analyze information.	4.81	0.45	Strongly Agree
5. It engages the audience in a unique and fun way and connects them to the learning material.	4.80	0.48	Strongly Agree

Overall Mean = 4.81

Standard Deviation = 0.45

Verbal Interpretation = Very High

Table 1 illustrates the status of web-based assessment tools in online quizzes. Among the statements above, "It enhances the creative thinking of students, and the quizzes are user-friendly" yielded the highest mean score of (M=4.88, SD=0.39) and was remarked as Strongly Agree.

This is followed by "It has questions that are easily understood, and the instructions are clearly stated" with a mean score of (M=4.84, SD=0.43) and remarked as Strongly Agree. On the other hand, the statement "It is engaging and interactive which will aid and help students in understanding the topic" received the lowest mean score of responses with a mean of (M=4.71, SD=0.48) yet was also remarked Strongly Agree.

Overall, using web-based assessment tools in terms of online quizzes attained a mean score of 4.81 and a standard deviation of 0.45, which was Very High among the students. The results imply that using online quizzes as a web-based assessment tools enhance students' creative thinking, and the quizzes are user-friendly. It also helps students improve their capability to understand and analyze information.

Moreover, the findings relate to the study of Dumova (2018), who examined the use of online quizzes and students' attitudes to these online quizzes. Based on the results of the study, it was concluded that the online quizzes were determined to be practical in terms of use as well as user-friendly. It was also indicated that the students had positive attitudes and outlook toward online quizzing and preferred online testing over traditional tests. It focused on the effects of online quizzes on students' performance.

Table 2. Status of Using Web-Based Assessment Tools in Araling Panlipunan 10 in terms of Digital Educational Games

STATEMENT	MEAN	SD	REMARKS
It provides new learning experiences to students which leads to the understanding of the topics.	4.81	0.47	Strongly Agree
It provides the opportunity to develop new abilities and expertise which might be used in employment and achievement.	4.87	0.37	Strongly Agree
It promotes a learner-centered approach, which supports intrinsic motivation when compared to traditional teaching methods.	4.80	0.40	Strongly Agree
It develops students' understanding and higher-order thinking skills.	4.74	0.46	Strongly Agree
It provides the learners the opportunity for a hands-on and real-life application that can increase knowledge and awareness of issues, actions, and resolutions surrounding complicated issues.	4.90	0.34	1. trongly Agree

Overall Mean = 4.83**Standard Deviation = 0.42****Verbal Interpretation = Very High**

Table 2 illustrates the status of using web-based assessment tools in terms of digital educational games. Among the statements "It provides the learners the opportunity for a hands-on and real-life application that can increase knowledge and awareness of issues, actions, and resolutions surrounding complicated issues" yielded the highest mean score of (M=4.90, SD=0.34) and was remarked as Strongly Agree.

This is followed by "It provides the opportunity to develop new abilities and expertise which might be used in employment and achievement" with a mean score of (M=4.87, SD=0.37) and was also remarked as Strongly Agree. On the other hand, the statement "It develops students' understanding and higher-order thinking skills" received the lowest mean score of responses with (M=4.74, SD=0.46) yet was also remarked as Strongly Agree.

Overall, the status of using web-based assessment tools in terms of digital educational games attained a mean score of 4.83 and a standard deviation of 0.42 and was Very High among the students. The results imply that using digital educational games as a web-based assessment tool provides an opportunity to develop new abilities and expertise which might be used in employment and achievement. It also provides the learners the opportunity for a hands-on and real-life application to increase knowledge and awareness of issues, actions, and resolutions surrounding complicated issues.

Moreover, the findings relate to the study of Anderson et al. (2019). They found that digital games provide learners the opportunity for a hands-on and real-life application, leading to increased knowledge and awareness of issues, actions, and resolutions surrounding complicated issues. Trybus (2020) also stated that the integration of digital games in the educational environment had shown positive results in enhancing the learning process. Strategically designed and integrated, digital games can potentially increase academic and learning effectiveness. In addition to this, Maragos and Grigoriadou (2018) quoted that digital educational games are games that promote logic and skills development and knowledge acquisition excitingly and pleasantly. Besides that, they allow students to learn new things while at the same time being engaged in an entertaining situation. It also improves a specific spatial skill if the game makes use of that skill.

Table 3. Status of Using Web-Based Assessment Tools in Araling Panlipunan 10 in terms of Interactive Videos

STATEMENT	MEAN	SD	REMARKS
1. It has the potential to provide several avenues to facilitate active, blended learning.	4.83	0.41	Strongly Agree
2. It enables a more personalized learning experience and greater choice for the learner.	4.88	0.36	Strongly Agree
3. It allows students to receive feedback, rate the usefulness of the videos utilized by the lecturer in a way like 'active media audiences', and move from being passive receivers to participate in the learning in useful ways.	4.83	0.47	Strongly Agree
4. It develops the students' ability to analyze and interpret ideas and improve the retention of memory,	4.78	0.47	Strongly Agree
5. It constitutes a critical factor in achieving learning outcomes and is an effective tool for teaching and learning in various disciplines.	4.80	0.48	Strongly Agree

Overall Mean = 4.82

Standard Deviation = 0.44

Verbal Interpretation = Very High

Table 3 illustrates the status of using web-based assessment tools in terms of interactive videos. Among the statements above, "It enables a more personalized learning experience and greater choice for the learner" yielded the highest mean score of ($M=4.88$, $SD=0.36$) and was remarked as Strongly Agree.

This is followed by "It has the potential to provide several avenues to facilitate active, blended learning" and "It allows students to receive feedback, rate the usefulness of the videos utilized by the lecturer in a way like 'active media audiences', and move from being passive receivers to participate in the learning in useful ways" with a mean score of ($M=4.83$, $SD=0.41$) and ($M=4.83$, $SD=0.47$) and were also remarked as Strongly Agree.

On the other hand, the statement "It develops the students' ability to analyze and interpret ideas and improve the retention of memory" received the lowest mean score of ($M=4.78$, $SD=0.47$) yet was also remarked Strongly Agree.

Overall, the status of using web-based assessment tools in terms of interactive videos attained a mean score of 4.82 and a standard deviation of 0.44 and was Very High among the students. The results imply that using interactive videos as a web-based assessment tool enables a more personalized learning experience and greater choice for the learner. Moreover, it allows students to receive feedback, rate the usefulness of the videos utilized by the lecturer in a way like 'active media audiences,' and move from passive receivers to participate in the learning in useful ways.

Furthermore, the findings relate to the study of Greenberg & Zenetis (2019), which stated that interactive videos were proven to have great potential to provide several avenues to facilitate active, blended learning. Studies have shown the ability of videos to engage the learner and activate cognitive and emotional learning, increase learning motivation, and positively affect students' perceptions of learning.

In the same vein as the study of Mocozet (2017), those Interactive videos are expected to increase students engagement compared to traditional text course materials, increase retention, and reduce teacher intervention. Of course, the types of videos the way the teacher incorporates the videos in the organization of teaching, and even the way he adapts his teaching to the videos all have an impact on the level of student engagement.

Student's Performance

Student's performance is the extent to which a student, teacher or institution has attained their short or long-term educational goals. It is commonly measured through examinations or continuous assessments. In this study, it was measured through diagnostic and summative test.

Table 4. Students' Performance in terms of Diagnostic Test and Summative Test

RANGE	DIAGNOSTIC		SUMMATIVE		REMARKS
	FREQUENCY	PERCENTAGE	FREQUENCY	PERCENTAGE	
41 to 50	0	0.00	76	88.37	Outstanding
31 to 40	14	16.28	10	11.63	Very Satisfactory
21 to 30	62	72.09	0	0.00	Satisfactory
11 to 20	10	11.63	0	0.00	Fairly Satisfactory
0 to 10	0	0.00	0	0.00	Did Not Meet Expectations
Total	86	100.00	86	100.00	
Overall Mean		25.34		45.23	
Standard Deviation		4.56		3.92	
Verbal Interpretation		Satisfactory		Outstanding	

Table 4 presents the students' academic performance in terms of diagnostic and summative test.

As Per the diagnostic test, out of eighty-six (86) students, sixty-two (62) were able to score between 21 and 30, which was satisfactory. This was followed in frequency by those who had performed on a very satisfactory level, with fourteen (14) students or 16.28% of the population performing as such. The remaining 11.63% or ten (10) students were able to score between 11 and 20, which was fairly satisfactory.

As per the summative test, out of eighty-six (86) students, seventy-six (76) or 88.37% of the total population were able to score between 41 to 50, which was outstanding. On the other hand, the remaining ten (10) students scored between 31 and 40, which was very satisfactory.

Overall, as per the diagnostic test, the student's performance was satisfactory, with a mean score of 25.34 and a standard deviation of 4.56. As per the summative, the students' performance was outstanding, with a mean score of 45.23 and a standard deviation of 3.92. It showed an improvement in the scores of the students in the diagnostic and summative tests. The results imply that the use of web-based assessment tools was effective.

Furthermore, the findings relate to the study of Abdilmanova and Olkova (2020); disclosing that it is essential to carry out a diagnostic test that helps then teacher and learners identify problems that they have. Teachers can use a diagnostic test to design more rational lesson plans and provide differentiated instruction to meet students' needs and attain pedagogical goals, including achieving a higher level of learning and innovation skills formation. Moreover, the study of Bhat (2019) explained that summative tests evaluate student learning, knowledge, proficiency, or success at the conclusion of an instructional period, like a unit, course, or program. Summative tests are almost always formally graded and often heavily weighted. It can be used to significantly affect in conjunction and alignment with formative assessment, and teachers can consider various ways to combine these approaches.

Table 5. Significant Difference on the Performance of the Students in terms of Diagnostic and Summative Test

Assessment	f-value	f-crit	p-value	Analysis
Web-Based Activities	0.052	0.311	0.578	2. Not Significant

Table 5 presents the significant difference in the students' Performance in diagnostic test and summative test.

Furthermore, it indicates that the diagnostic and summative assessments were observed to have a significant difference based on the computed f-value of 9.4171, which was greater than the critical value of 3.8967 at a 0.05 level of significance.

From the findings above, we can infer that at a 0.05 level of significance, the null hypothesis "There is no significant difference between the diagnostic and summative assessment." is rejected. Thus, there is a significant difference.

Table 6. Significant Effect of Using Web-Based Assessment Tools in Araling Panlipunan 10 on the students' Performance

Web-Based	Performance	t-value	t-critical	Analysis
Online Quizzes	Summative	23.9806	1.9883	Significant
Digital Educational Games		23.9554		Significant
Interactive Videos		23.9582		Significant

Table 6 presents the significant effect of using web-based assessment tools in Araling Panlipunan 10 on the students' academic performance.

Web-based assessment tools were observed to have a significant effect to the performance of the students based on the computed t-values of 23.9806, 23.9554, and 23.9582, respectively, for online quizzes, digital educational games, and interactive videos, which were all greater than the critical value of 1.9883 at 0.05 level of significance.

From the findings above, we can infer that at 0.05 level of significance, the null hypothesis "There is no significant effect of using web-based assessment tools in Araling Panlipunan 10 on the students' performance" is rejected. Thus, there is a significant effect.

Moreover, the results can be supported by the study of Affum (2022) which concluded that increase in internet use was very useful in the improvement of the learning outcomes. The study also found the negative impacts of internet use which leads to distraction as time is spent on social media instead on studies. Therefore, it is proposed that authorities should provide guidelines to help students overcome some of the challenges faced when using the internet.

Summary of Findings

The study was intended to determine the effect of Web-based assessment tools in Araling Panlipunan 10 in Linga National High School. The study's respondents were grade 10 students of Linga National High School. Using the purposive sampling, selected Grade 10 students, composed of heterogeneous students from ages 14-17 years old, were selected. The group was composed of eighty-six (86) students.

This research paper followed the order of the queries enumerated in the first chapter namely: the status of using web-based assessment tools in terms of online quizzes, digital educational games, and interactive video; the students' performance in terms of diagnostic and summative tests; the significant difference in the students' performance in terms of a diagnostic and summative test; the significant effect of using Web-Based Assessment Tools in Araling Panlipunan 10 on the students' performance.

The descriptive research design was used in this study to determine if the Web-based Assessment Tools affect the Students' Performance in Araling Panlipunan 10. The researcher created a self-made questionnaire as a checklist and assessment test to collect and gather data. The questionnaire was divided into two parts. Part I was the web-based assessment tool for Online Quizzes, Digital Educational Games, and Interactive Videos, and Part II was the assessment test used to measure their mastery index in Araling Panlipunan 10.

Based on the data gathered, the following are the findings of the study.

The result shows that the students responded "very high" in terms of online quizzes, digital educational games and interactive videos which can imply that students can acquire new skills and knowledge that can be applied to real-world application which can improve understanding and awareness of the problems, for solutions, and actions associated with complex problems.

Overall, the student's performance in diagnostic test was "satisfactory" while the student's performance in summative test was "outstanding". This can imply that performance of the students had improved after the material was used.

The diagnostic and summative assessments were observed to have a significant difference. The null hypothesis "There is no significant difference between the diagnostic and summative assessment." is rejected. Thus, there is a significant difference.

Web-based assessment tools were observed to have a significant effect to the performance of the students for online quizzes, digital educational games, and interactive videos, which implies that internet use in education was very useful in the improvement of the learning outcomes.

From the findings above, the null hypothesis "There is no significant effect of using web-based assessment tools in Araling Panlipunan 10 on the students' performance" is rejected. Thus, there is a significant effect.

Conclusion

Based on the foregoing findings of the study.

It is concluded that the diagnostic and summative assessments were observed to have a significant difference based on the values which was greater than the critical values on the results.

From the findings above, we can infer that, the null hypothesis "There is no significant difference between the diagnostic and summative assessment." is rejected. Thus, there is a significant difference. Furthermore, web-based assessment tools were observed to have a significant effect to the performance of the students based on the computed t-values for online quizzes, digital educational games, and interactive videos, which were all greater than the critical values on the results.

From the findings above, we can infer that, the null hypothesis "There is no significant effect of

using web-based assessment tools in Araling Panlipunan 10 on the students' performance" is rejected. Thus, there is a significant effect.

Recommendations

Based on the conclusions, the following recommendations are advised:

1. Web-based assessment tools can be used as a benchmarking tool to be utilized by teachers and students within the district.
2. Facilitators are encouraged to adopt the proposed method in teaching various academic subjects to achieve their learning objectives.
3. Incorporate the web-based assessment tools in the School Improvement Plan (SIP), considering its advantages to improving the students' performance.
4. Include the research as a project in the Annual Basic Education-Learning Continuity Plan (BE-LCP) to allocate a budget related to the program's implementation.
5. School administrators may conduct In-Service-Training or workshops to enlighten the teachers on using web-based assessment tools and enhance their pedagogical skills in teaching Araling Panlipunan 10.
6. Future researchers may use the data obtained in the present study as a reference for their research

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