PROPOSED DIGITIZED INSTRUCTIONAL MATERIAL IN EDUKASYONG PANTAHAN AT PANGKABUHAYAN 5

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Abstract. This study aimed to propose a digitized instructional material in dukasyong Pantahanan at Pangkabuhayan for Grade 5 Learners. The Grade 5 learners manifested low mastery in the competencies under Edukasyong Pantahanan at Pangkabuhayan -Agriculture. The proposed instructional material involving the lessons under Edukasyong Pantahanan at Pangkabuhayan-Agriculture is acceptable based on the evaluation of its content quality, instructional quality and technical designs. It is recommended that the proposed digitized instructional material should be recommended for use by Edukasyong Pantahanan at Pangkabuhayan 5 teachers. Teachers should also develop other forms of similar digitized instructional materials in other areas of Edukasyong Pantahanan at Pangkabuhayan which is found to be less mastered by the learners. Similar studies should be conducted focused on areas not covered by this study.

Keywords. Digitized instructional material, edukasyong pantahan pangkabuhayan, level performance,

1 Introduction

The Philippines is a developing country, but our technology has kept up with most of the world. But the technology gap Lacson (2018) is referring to is not the country's acquisition of technology or lack thereof on a global comparison, but the present local gap between schools, universities, and institutions. To bring the local technology gap closer, the Department of Education geared towards the transformation of education through the DO 78, s. 2010 or the DepEd Computerization Program (DCP). DCP aims to provide public schools with appropriate technologies that would enhance the teaching-learning process and meet the challenges of the 21st century. Through this, it gives the teachers and learners' access to technology in their lessons even if the schools are located far flung.

Teachers are also responsible for bringing the technology gap closer by providing students up-to-date learning resources and developing instructional materials which integrate technology that enhance teaching-learning process. McKnight (2016) stated that when technology is combined with solid pedagogy, it can transform education and enable students to take ownership over their learning.

Using technology in teaching Edukasyong Pantahanan at Pangkabuhayan may facilitate the learning process. Edukasyong Pantahanan at Pangkabuhayan (EPP) covers Entrepreneurship, Information and Communication Technology (ICT), Home Economics (HE), Agriculture (AG) and Industrial Arts (IA). It is geared towards the development of technological proficiency and is anchored on knowledge and information, skills and processes, and the acquisition of proper work values and life skills. It equips learners with skills for lifelong learning. It is focused on mastery of skills and processes. An effective Edukasyong Pantahanan at Pangkabuhayan is one that is founded on the cognitive, behavioral, or psychomotor and affective dimensions of human development. The use of technology such as digitized instructional material can be a tool or strategy in teaching Edukasyong Pantahan at Pangkabuhayan which may aid in teaching facts, concepts, skills and values in their entirety.

According to Harman (2018) ebooks ensure that students are proactively interacting with the learning material by way of videos, animations, augmented reality, changing displays, taking notes etc. Digital books provide students with a completely enriched learning experience and help them improve their academic performance.

The researcher, an elementary school teacher, observed that learners are more engaged and interested when teachers integrate digital technology in teaching. Digital learning is like a blessing for today's curious generation that wants to get every information at its fingertips. Today's tech-savvy generation is not bound to traditional classroom courses for quality education. Digital technology made study materials available in different formats. From the live online classes to podcasts,

webinars, blogs, and recorded lectures, there are so many options for the learners. These digital learning materials not just help students learn at their pace but also help them develop their own learning style.

It is for this reason that the researcher endeavored to make Edukasyong Pantahanan at Pangkabuhayan 5 more interesting to the students by using digitized instructional materials using Kotobee Author and Kotobee Reader that will help facilitate the learning process.

2 Review of Related Literature

The researcher presented foreign and local related studies. The review of related studies provide an adequate insight on the concept of the present study. The studies conducted by Lin, Chen, Liu (2017), Zwart et., al. (2017), Hawlitschek and Joeckel (2017), McNaughton et., al. (2018), Robinson et., al. (2019), Martin et., al. (2019), were all focused on the effects of digital learning material and tools in teaching. Similarly, the present study, the researcher focused on the proposed digitized instructional material in Edukasyong Pantahanan at Pangkabuhayan 5.

Whereas, Basilan (2019), Duran (2016) made an investigation on the use of digitized instructional materials aimed to improve learning. The present study is similar to the above-mentioned studies in such a way that the researcher is proposing digitized instructional material. On the other hand, Morales (2016) and Resngit (2017) also focused on the use of technology through different digital instructional material to improve academic performance of the students.

In like manner, Mendiguarin (2017) was focused on the proposed digitized instructional material in Mathematics 4. The present study and Mendiguarin's study are similar in the sense that they both deal with the proposed digitized instructional material. The above mention study differs from the subject area of investigation and the environment where the study was conducted.

3 Research Methodology

3.1 Research Design

This study utilized the descriptive-developmental research method. It is descriptive because it investigated and described the performance and situation of the Grade 5 Edukasyong Pantahanan at Pangkabuhayan learners by analyzing the second quarter test results during the school year 2019-2020.

This study is also a developmental research. Developmental research has been defined as the systematic study of designing, developing, and evaluating instructional programs, processes, and products that must meet criteria of internal consistency and effectiveness. In this study, the researcher proposed and developed a digitized instructional material for use of Grade 5 learners in Edukasyong Pantahanan at Pangkabuhayan in the area of Agriculture.

3.2 Sources of Data

This study utilized the descriptive-developmental research method. It is descriptive because it investigated and described the performance and situation of the Grade 5 Edukasyong Pantahanan at Pangkabuhayan learners by analyzing the second quarter test results during the school year 2019-2020. This study is also a developmentalresearch. Developmental research has been defined as the systematic study of designing, developing, and evaluating instructional programs, processes, and products that must meet criteria of internal consistency and effectiveness. In this study, the researcher proposed and developed a digitized instructional material for use of Grade 5 learners in Edukasyong Pantahanan at Pangkabuhayan in the area of Agriculture based on a given set of criteria. The IT experts evaluated the proposed instructional material as to technical design.

3.3 Statistical Treatment of Data

To determine the level of acceptability of the proposed digitized instructional material, average weighted mean was employed, and results were interpreted using a 4-point Likert scale. To determine the level of acceptability of the proposed digitized instructional material, average weighted mean was employed, and results were interpreted using a 4-point Likert scale.

4 Presentation, Analysis, and Interpretation of Data

4.1 Level of Acceptability of the Proposed Digitized Instructional Material in Edukasyong Pantahanan at Pangkabuhayan 5

Table 1 reveals that the Edukasyong Pantahanan at Pangkabuhayan 5 teachers rated the proposed digitized instructional material as "acceptable" (AWM=3.28) in terms of its content quality.

Table 1. Level of Acceptability of the Proposed Digitized Instructional Material
as to Content Quality

CRITERIA (CONTENT QUALITY)	EPP 5 Teachers N=10		Education Program Supervisor N=1		Overall Mean N=11	
	AWM	Descriptive Equivalent	Rating	Descriptive Equivalent	AWM	Descriptive Equivalent
1.Content is consistent with topic/skills found in the DepEd Learning Competencies for the subject and grade level it was intended.	3.50	Highly Acceptable	3.00	Acceptable	3.25	Acceptable
2. Concepts developed contribute to enrichment, or mastery of the identified learning objectives.	3.40	Acceptable	3.00	Acceptable	3.20	Acceptable
3. Content is accurate.	3.20	Acceptable	3.00	Acceptable	3.10	Acceptable
4. Content is up-to date.	3.10	Acceptable	3.00	Acceptable	3.05	Acceptable
5. Content is logically developed and organized.	3.30	Acceptable	3.00	Acceptable	3.15	Acceptable
6.Content is free from cultural, gender, racial, or ethnic bias.	3.30	Acceptable	3.00	Acceptable	3.15	Acceptable
7. Content stimulates and promotes critical thinking.	3.50	Highly Acceptable	3.00	Acceptable	3.25	Acceptable
8. Content is relevant to real-life situation.	3.00	Acceptable	3.00	Acceptable	3.00	Acceptable
9. Language (including the vocabulary) is appropriate to the target user level.	3.20	Acceptable	3.00	Acceptable	3.10	Acceptable
10. Content promotes positive values that support formative growth.	3.30	Acceptable	3.00	Acceptable	3.15	Acceptable
Overall	**3.28**	**Acceptable**	**3.00**	**Acceptable**	**3.14**	**Acceptable**

Looking on the table, the Education Program Supervisor also rated the proposed digitized instructional material as to its content quality as "acceptable" (Mean Rating =3.00). The proposed digitized instructional material is acceptable with an overall average weighted mean of 3.14. The results also shows that the content quality of the digitized instructional material has a highly acceptable content that is consistent with the topic found in the DepEd Learning Competencies for Edukasyong Pantahanan at Pangkabuhayan 5. The evaluators also agree that the content stimulates and promotes critical thinking. Hence, the result implies that the proposed digitized instructional material in Edukasyong Pantahanan at Pangkabuhayan–Agriculture could be an appropriate intervention tool to improve the performance level of learners.

Table 2. Level of Acceptability of the Proposed Digitized Instructional Material as to Instructional Quality

CRITERIA (INSTRUCTIONAL QUALITY)	EPP 5 Teachers N=10		Education Program Supervisor N=1		Overall Mean N=11	
	AWM	Descriptive Equivalent	Rating	Descriptive Equivalent	AWM	Descriptive Equivalent
1. Purpose of the material is well-defined	3.20	Acceptable	3.00	Acceptable	3.10	Acceptable
2. Material achieves its defined purpose.	3.40	Acceptable	3.00	Acceptable	3.20	Acceptable
3. Learning objectives are clearly stated and measurable.	3.10	Acceptable	3.00	Acceptable	3.05	Acceptable
4. Level of difficulty is appropriate for the intended user.	3.20	Acceptable	3.00	Acceptable	3.10	Acceptable
5. Graphics/colors/sounds are used for appropriate reasons.	3.50	Highly Acceptable	4.00	Highly Acceptable	3.75	Highly Acceptable
6. Material is enjoyable, stimulating, challenging, and engaging.	3.10	Acceptable	3.00	Acceptable	3.05	Acceptable
7. Material effectively stimulates interest of target user.	3.50	Highly Acceptable	4.00	Highly Acceptable	3.75	Highly Acceptable
8. Instruction is integrated with target user's previous experience.	3.10	Acceptable	3.00	Acceptable	3.05	Acceptable
9. Evaluation question are varied and at different cognitive levels.	3.10	Acceptable	3.00	Acceptable	3.05	Acceptable
10. Feedback on target user's response is effectively employed	3.30	Acceptable	3.00	Acceptable	3.15	Acceptable
Overall	**3.25**	**Acceptable**	**3.20**	**Acceptable**	**3.23**	Acceptable

It can be seen on table 2 that the proposed digitized instructional material was rated by both the Edukasyong Pantahanan at Pankabuhayan 5 teachers and the Education Program Supervisor as "acceptable" with mean of 3.25 and 3.20 respectively. The overall weighted mean of the digitized instructional material was 3.23 which described as "acceptable". This implies that the digitized instructional material can effectively stimulate interest of the Grade
5 learners, the learning objectives are clearly stated, and the level of difficulty is appropriate for the intended users.

4.2 Social Media Usage Profile of the Grade 11 Learners

Table 8.1 summarizes the time the Grade 11 learners of MAVC access their social media sites. Most of the Grade 11 learners of MAVC access their social media sites during free time as depicted in the 90% share of votes, 34% says they access their social media sites when with friends, 16% access their social media sites in their spare time and only 9% access their social media while at school.

Table 3. Time Accessing Social Media Site

Time Accessing Social Media sites	Frequency	Percentage Share
During free time	90	90%
When with friends	34	34%
Any spare time	16	16%
While at school	9	9%

Table 4 summarizes how many times the Grade 11 learners of MAVC do their social media activity like posting pictures, comments, etcetera on their social media account/s. Half of the Grade 11 learners of MAVC, i.e., 50% of them answered slightly often, 24% answered moderately often, 12% answered not at all often, 8% answered Extremely often, and only 2% answered very often. The data in Table 8.2 suggest that most of the Grade 11 learners of MAVC seldom subscribe to the different activities like posting pictures, etcetera in the social media, and only about 34% of them moderately to extremely subscribe to the different social media activities.

Table 4. Frequency of Social Media Activity

Frequency of Social Media Activity	Frequency	Percentage Share
Slightly often	50	50%
Moderately often	24	24%
Not at all often	12	12%
Extremely often	8	8%
Very often	2	2%

Table 5 summarizes how often the Grade 11 learners of MAVC use their chat app (GC). About 33% of the respondents answered moderately often, 25% answered very often, 21 % answered extremely often, 16% answered slightly often, and only 4% answered not at all often. The data gathered in this table suggest the active use of most Grade 11 learners of MAVC of their chat apps (GC) with a combined percentage of 79% of those who moderately to extremely use their chat apps (GC).

Table 5. Frequency of Use of Chat App (GC)

Frequency of Use of Chat App (GC)	Frequency	Percentage Share
Moderately often	33	33%
Very often	25	25%
Extremely often	21	21%
Slightly often	16	16%
Not at all often	4	4%

Table 6 summarizes how much time the Grade 11 learners of MAVC spend on social media. There were 37 or 37% of the respondents spend 1-2 hours on social media, 20% of them spend an hour on social media, 18% spend 4 hours on social media, 12% spend less than 30 minutes on social media, and 9% spend 3-4 hours on social media. Again, these data affirm that the Grade 11 learners of MAVC spend a good amount of time on social media, with a combined percentage of 64% of those who spend social media from 1 to more than 4 hours.

Table 6. Time Spent on Social-Media

Time Spent on Social Media	Frequency	Percentage Share
1-2 hours	37	37%
An hour	20	20%
More than 4 hours	18	18%
Less than 30 mins	12	12%
3-4 hours	9	9%

4.3 Relationship between the Social Media Usage of the Grade 11 Learners and their English Proficiency Level

Table 7. Contingency Table on English Language Performance and Social-Media Sites Visited

ENGLISH LANGUAGE PERFORMANCE	NUMBER OF SOCIAL MEDIA SITES VISITED (Including Other Social Media Related Apps / Groups			TOTAL
	1 - 2 Social Media Sites	3 - 5 Social Media Sites	6 - Up Social Media Sites	
High Proficiency	13	15	20	48
Average Proficiency	8	16	10	34
Low Proficiency	2	4	4	10
TOTAL	23	35	34	92

Computed x^2 = 2.256
Critical x^2 = 9.35 at 0.05 level of significance with df = 4
C = 0.15

From the table, it can be observed that 20 out of the 34 learners who visit more than 6 social media sites are high performers in English, 10 of them are average performers, and 4 are low performers. This may be the case; it is observed that the differences in figures are not that significant whether they are high, average, or low performers; they have the tendency to access 1 up to more than 6 social media sites.

The computed value of x^2 is 2.256 is lower than the critical value of x^2, which is 9.35, and a contingency coefficient of 0.15 indicates a no or negligible correlation; meaning, there is no significant relationship between the English language performance and social media sites.

From the table, it can be observed that 33 out of the 60 learners who visit social media to be informed or to get information are high performers in English, 22 of them are average performers, and 4 are low performers.

The computed value of x^2 is 2.003 is lower than the critical value of x2, which is 9.35, and a contingency coefficient of 0.15 indicates a no or negligible correlation; meaning, there is no significant relationship between the English language performance and the purpose of social media visited.

Table 8. Contingency Table on English Language Performance and Purpose of Social Media Visit

ENGLISH LANGUAGE PERFORMANCE	PURPOSE OF SOCIAL MEDIA VISIT			TOTAL
	Communication	Information	Entertainment	
High Proficiency	3	33	10	46
Average Proficiency	3	23	10	36
Low Proficiency	1	4	5	10
TOTAL	7	60	25	92
Computed x^2 = 2.003 Critical x^2 = 9.35 at 0.05 level of significance with df = 4 C = 0.15				

From the table, it can be observed that 17 out of the 29 students who visit social media most frequently are high performers in English, 7 of them are average performers, and 5 are low performers. The same is true with those who moderately visit social media, the high and average performers composed the 48 out of the 53 moderate users of social media. The computed value of x2 is 32. 372 is higher than the critical value of x2 which is 9.35, and a contingency coefficient of 0.51 indicates a moderate, positive correlation; meaning, there is a significant relationship between the English language performance and frequency of social media usage.

Table 9. Contingency Table on English Language Performance and Frequency of Social Media Usage

ENGLISH LANGUAGE PERFORMANCE	FREQUENCY OF SOCIAL MEDIA USAGE			TOTAL
	LESS FREQUENT	MODERATELY FREQUENT	EXTREMELY FREQUENT	
High Proficiency	4	26	17	47
Average Proficiency	5	22	7	34
Low Proficiency	2	5	5	12
TOTAL	11	53	29	93
Computed x^2 = 32.372 Critical x^2 = 9.35 at 0.05 level of significance with df = 4 C = 0.51				

5   Conclusion and Recommendation

The English proficiency level of the Grade 11 learners of MAVC, as reflected in their first quarter (Q1) average grade in English, is average. In terms of social media sites visited, the Grade, 11 learners of MAVC, tend to visit and access almost all the social media sites available as well as social media-related games and/or activities like WordScapes, Wattpad, and Mobile Legends. However, the frequently visited are Facebook, Messenger, and YouTube. It is also noteworthy that the Grade 11 learners of MAVC maintain 2 up to more than 4 accounts and chat apps (GC). In terms of the purpose of social media usage, the Grade 11 learners of MAVC still regard social media primarily as a way to communicate with their family and friends. However, it is also evident in their answers that they get informed and entertained through social media. In terms of frequency of usage, the Grade 11 learners of MAVC commonly access social media during their free time. While most of them do their social media activities slightly often, their activity in their chat apps is from 76 moderately to frequently often. Lastly, most of the Grade 11 learners spend an hour up to more than four hours on social media. There is no significant relationship between English Language Performance and social media usage in terms of social media sites visited and the purpose of social media visits; however, there is a significant relationship between English Language Performance and social media usage in terms of frequency of usage.

The teachers should take responsibility in choosing social media sites, apps, and activities that the learners can explore to augment their studies in general and to help them how to be critical in identifying worthwhile social media-related activities that they can consider. The teachers set the parameters for the learners of healthy and responsible social media usage.

The school to take strict measures to limit unnecessary social media sites and apps to be explored by learners in school; likewise, to culture a reading habit for learners through social media or other online links by establishing a reading laboratory for its learners to re-direct learners' apparent disgust on textbook reading. The community authorities, as part of their role, to uphold the welfare of the youth, to support the advocacy of schools by strictly implementing the laws regarding the use and rentals of a computer to minors, and, to even come up with ordinances that define the time and activities minors can access or rent out the use of a computer. Future researchers to consider a comprehensive review of the different social media apps and sites that can be recommended and institutionalized as teaching aid and/or for classroom use that teacher, especially the language teachers, can readily employ in their class.

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