

ISSN: 2455-7838(Online)

EPRA International Journal of Research and Development (IJRD)

Volume: 6 | Issue: 7 | July 2021 - Peer Reviewed Journal

DEVELOPMENT OF E-ENJOY (ENHANCED, NEW AND JOYFUL OPERATION FOR YEARNING IN COOKERY) A DIGITIZEDLEARNING MOBILE APPLICATION

Joy Reyes Ofren

Laguna State Polytechnic University, Santa Cruz, Laguna

ABSTRACT

A quasi-experimental study was conducted to assess the acceptability of E-enJoy (Enhanced, New and Joyful Operation for Yearning in Cookery) A Digitized Learning Mobile Application for the Grade 10 TLE Students. Further, it aimed to identify the students', teachers', and ICT experts' level of acceptance of the parts of E-enJOY Digitized Mobile Application in terms of objectives, topics, exercises and directions and the level of acceptance of the characteristics of E-enJOY in terms of functionality, accuracy, and suitability. In addition, it also seeks to identify the level of acceptance of the respondents to the E-enJOY as a Digitized Mobile Application.

Three (3) groups of respondents participated in the study, the grade 10 cookery students, TLE teachers, and ICT Experts. They were given a teacher-made survey questionnaire with 4-point Likert Scale to determine their perception on the E-enJOY as a Digitized Mobile Application. The developed apps served as the main research instrument which was assessed by the said respondents.

All the groups rated the E-enJOY Mobile Application with very high acceptability rating. This very desirable rating from the respondents implies that the said innovative instructional material is highly acceptable and they are very positive that the development of E-enJOY will aid the students' need in innovative learning material in TLE Grade 10 Cookery.

The null hypothesis stating that there is no significant difference with the level of acceptability of the respondents with the E-enJOY is partially accepted. It means that the respondents gave unanimously the same high rating in terms of acceptability of the said mobile application. Hence, it is suggested that the Division Office of Santa Rosa City may adopt this material to support effective teaching and quality learning of Grade 10 TLE Cookery Students in public school.

KEYWORDS: E-enJOY Cookery Digitized Acceptability

I. INTRODUCTION

In this 21st century world almost everything relies in technology. At very young age the children learn to manipulate gadgets that makes them eligible part of the digital world. This makes them easy to be part of the world of computer savvy generation.

The students' hobby of playing online games and interest in many social sites such as Facebook and Twitter brought changes in their lives whether at home or in school. The interest and fun they get from online games at times affect many aspects of their lives. In fact, there are studies pointing out to the overly used of gadgets that a person tends to forget his or her social

life and begins to exclude himself or herself from the crowd because of too much involvement in the online activities. Perhaps, many have seen this as negative impact of the introduction of the online games to everyone particularly to students.

On the other hand, there are also some beliefs that online applications and the likes initiate good effects since if someone has no or even less knowledge of any online application or how to operate personal computer and other gadgets, the communication, and the adaptability to current trends will become a great challenge for him. Thus, this individual will find it



EPRA International Journal of Research and Development (IJRD)

Volume: 6 | Issue: 7 | July 2021 - Peer Reviewed Journal

difficult to socialize and be part of the society which is fast changing in terms of technology.

This study will try to capitalize on the advantage of the fact that students are well equipped with modern technology. This reality will help them understand the language of digital world and perhaps will offer them the chance to enjoy what they are doing while academic accomplishments in TLE are about to achieve.

The term digitalized entails modernity and sophistication whereas, this study would like to utilize these as advantageous factors in developing a digitized learning mobile application for the grade 10 students of Sto. Domingo Integrated High School. The study is derived from the name of the researcher; this is entitled as E-enJOY (Enhanced New and Joyful Operation for Yearning in Cookery). Aside on learning TLE competencies in line with MELCS or Most Essential Learning Competencies, the aim of this study is to let the students enjoy what they are doing within the periphery of their interest such as following instructions in an online applications and interactive online activities.

In line with the needs of grade 10 TLE students, the researcher gives focus on the Grade 10 Cookery Students in Sto, Domingo Integrated High School. The researcher addresses the students' needs to develop a Digitized Learning Mobile Application and find their perception about the application.

This also addressed the needs of the students for an innovative online instructional material that will cater them in the absence of the teacher since face-to-face classes are still prohibited due to pandemic.

II. OBJECTIVES OF E-ENJOY MOBILE APPLICATION

- 1. To provide Instructional Materials(IMs) aligned with the K-12 Basic Education Program.
- 2. To provide joyful and meaningful technologyintegrated and interactive e-quizzes in a form of games
 - to be played by the learner every after each learning outcome(LO).
- 3. To provide easy access to every lessons, vocabularies, culinary tools and recipes.
- 4. To make the learners interested and wellengaged in learning even without internet connection.
 - 5. To enjoy learning while having fun.

III. RELATED LITERATURE

Skills and competencies truly matters whether in academics or professional aspects in life. In the school setting, teachers must be creative enough to get the students' attention so teaching and learning process can be smooth sailing. Therefore, the students must learn all the aspects of a certain subject to make them proficient and perform their best whereas in this research the focus is the students' performance in TLE

ISSN: 2455-7838(Online)

This proficiency in skills and competencies is important not just as a vital aspect of TLE performance in school but a great tool that empowers people in their daily lives. In this study the strategy of using E-enJOY (Enhanced, New, and Joyful Operation for Yearning in Cookery): A Digitized Learning Mobile Application will be the tool to enhance the academic performance of grade 10 students in Cookery subject.

On the aspect of innovative teaching the new generation of students also known as igeneration or generation Z is a big challenge to the teachers. One must defy the odds and understand students' needs and necessities in order to gain the most possible learning. The learning providers or the teachers must be fully aware and abreast of the current situation and attitudes of students, be innovative and resourceful enough to deal with them so that the quality of education that the government is imposing would be more achievable (Figuracion, 2017)

Since most of the learners now are very inclined to digital technology there is a must that the teachers should consider strategies to gain their interest for learning whereas, in this study the researcher aims to develop the students' interest in studying TLE through the use of technology. The digitized learning module E-enJOY Cookery is created to cater the changing needs of the learners that will make the learning process more interesting, appealing and enjoyable.

This research is similar to the study conducted by M. Mulder (2016) where he investigated the impacts of a digital learning module with guided peer feedback on students' domain- specific knowledge gain and their attitudinal change in the field of biotechnology and molecular life sciences. The extent to which the use of the digital module was appreciated by the students.

On the other hand, effective teaching involves acquiring relevant knowledge about the learners and using that knowledge to create varied strategies designed for classroom teaching. When one teaches, he does not just teach the content, but he also teaches students the content. Nowadays technology plays a key role in innovative teaching. Innovative teachers use new technology to enhance or expand upon the student experience. The transition from traditional blackboard



EPRA International Journal of Research and Development (IJRD)

Volume: 6 | Issue: 7 | July 2021 - Peer Reviewed Journal

and overhead projector instruction into computer-aided presentations was innovative. As of 2014, innovative teachers incorporate tools like tablet computers and mobile devices to offer students a more interactive experience. To ensure effective use of innovative instructions, Hayden Smith and Thomas Nagel (1972) as cited by Corpuz and Lucido (2015) advise us to abide by the acronym PPTF: Prepare yourself; Prepare your students; Present the materials; and Follow-up. This is similar to this study of using digitized mobile application wherein, the teacher will prepare the atmosphere for learning by assigning tasks to be done online based on the TLE topic. Follow-up is in forms of quizzes in the classroom setting through pen and paper. This is as opposed to the concept of Nardo and Hufana (2014) which states that the traditional teaching material is one of the essential components within the curriculum which is often the most tangible and visible aspect of teaching-learning process. They affirm that for the learning goals to be achieved, the syllabus which runs through the traditional classroom set-up should be used. Moreover, learning the lesson is more meaningful with experiential sense since the instructions give detailed specifications of content. Furthermore, they emphasized that the traditional printed materials also direct teachers to attain the goals and objectives of a specific content or pedagogical tasks.

Overall, it is based on studies that proper instructions must be provided to students for them to perform their best in their academics. Wherein, the students with enhanced learning skills will have a possibility of greater advantage than to those who don't.

Technologies are rapidly evolving and although there is evidence to suggest that education lags behind in its adoption of new technologies for teaching and learning emerging technologies will inevitably impact on education. Educators must then consider the mixture of traditional and the emergent technologies in the delivery of relevant, timely and meaningful instruction among the 21st century learners. (Sicat, 2015)

The studies of American authors Price (2009) and Richard Sweeney (2012) as cited by Figuracion (2017), children of today are digital natives who are perfectly at home with technology and use it to mediate their experience and social relationships. They value experiential and exploratory learning, quickly becoming bored with passive lectures, and are high achievers who are very grade motivated. They are also impatient, easily bored, and expect instant gratification when they do know that they did an assigned task well. They believe (for better or worse) that they are expert

multi-task doers such as doing homework, monitoring phone and Facebook feeds, and listening to music at the same time.

ISSN: 2455-7838(Online)

Gacelo (2015) mentions that there is a famous Chinese proverb that says, "I hear, and I forget; I see, and I remember; I do, and I understand." This means that to achieve maximum learning, the learner must be active. It is commonly held that the learning process is controlled by the learner and not by the teacher. The changes in a learner's perception and behavior are products of human meaning and perceiving, rather than of forces exerted upon him/her. Learning is not only the function of the teacher; it has something to do with what happens in the unique world of the learner, that is, learning by doing whereas in this study the learning happens in the virtual world through the use of digitalized learning mobile application.

IV. STATEMENT OF THE PROBLEM

This study determines the perceptions of the respondents on the use of developed E-enJOY (Enhanced,New and Joyful Operation for Yearning in Cookery) A Digitized Learning Mobile Application for the Grade 10 TLE Students. Specifically, it sought to answer the following questions:

1. What is the level of acceptability of the parts of E-enJOY

Digitized Mobile Application in terms of:

- 1.1 objectives;
- 1.2 topics;
- 1.3 exercises;
- 1.4 directions?
- 2.What is the level of acceptability of the characteristics of E-enJOY

Digitized Mobile Application in terms of:

- 2.1 functionality;
- 2.2 accuracy;
- 2.3 suitability?
- 3. What is the level of acceptance of E-enJOY Digitized Mobile Application

of the respondents?

4.Is there a significance difference between the level of acceptability of

E-enJOY Digitized Mobile Application of the respondents?

V. METHODOLOGY

This chapter includes the method of research used, the respondents of the study, the instrument utilized in the investigation, the data gathering procedure adopted, and the statistical treatment applied to the data of the study.



ISSN: 2455-7838(Online) EPRA International Journal of Research and Development (IJRD)

Volume: 6 | Issue: 7 | July 2021 - Peer Reviewed Journal

Research Design

This study uses the descriptive survey method which is suitable wherever the subjects vary among themselves and one is interested to know the extent to which different conditions and situations are obtained among these subjects. (Calmorin, 2010)

Descriptive survey is appropriate determining the perception of respondents as regards to the acceptability of a digitized learning materials in improving the performance of the TLE Grade 10 students at Sto. Domingo Integrated High School.

This chapter consists of the research design, and sampling techniques, population research procedure, data gathering procedure, research instrument and statistical treatment of data.

Respondents of Study

The term population is the aggregate or total of objects, persons, families, species or orders of plants and animals. (Garcia, et al., 2011)

Grade 10 cookery students of TLE at Sto. Domingo Integrated High School for the school year 2020-2021 are the respondents of this study together with other TLE teachers, Master Teachers and ICT experts. Using the Slovin's formula at 5% margin of error, an ideal target respondents will be derived.

Research Instrument

A teacher-made survey questionnaire using 4point Likert Scale is adopted to determine the perception of the respondents.

The researcher will ask competent authority, preferably someone who has a doctoral degree in English to validate the contents and relevance of the questions. Suggestions and changes proposed by the validating persons are incorporated in questionnaire.

This study uses Likert Scale to find out the different responses of the respondents based on the given weight from 1 to 4 where 4 is Highly Acceptable, 3 is Acceptable, 2 is Slightly/Moderately Acceptable, and 1 is Not Acceptable.

Likert scales are given scores or assigned a weight to each scale, usually from 1 to 4. The purpose is to sum the scores for each respondent (the response average) and the intent of this is that the statement will represent different aspects of the same attitude. (Garcia, et.al., 2011)

Data Gathering Procedure

Letter of request will be submitted to the advisers for signing and suggestions. Afterwhich, permit is to be secured from the principal.

Administration Stage

After securing permit from the principal, questionnaire will be distributed to the target respondents with the assistance of the adviser. Instruction will be given to the respondents to ensure clarity. Ample time is to be allotted for the students to answer the questions. Answers will be collected for data analysis later on. All the procedures will be done through online platform.

VI. **RESULTS AND DISCUSSIONS**

This chapter provides the presentation and analysis of data substantial in determining the acceptability in developing the E-enjoy (Enhanced, New and Joyful Operation for Yearning in Cookery) A Digitized Learning Mobile Application for Grade 10 TLE Students. For better understanding of the discussion of the findings, the results were compared, followed by the interpretation of findings in the same sequential order of the specific questions.

In this study, the E-enJOY Digitized Mobile Application was described in terms of objectives, topics, exercises, directions, functionality, accuracy and suitability. Presented in the table below was the level of acceptability of the E-enJOY Digitized Mobile Application determined by the weighted mean and standard deviation.

Table 1. Level of acceptability of the parts of E-enJOY Digitized Mobile Application in terms of Objectives

STATEMENT	Students			Teachers & ICT Experts		
	Mean	SD	Remarks	Mean	SD	Remarks
1. Relevant to the topic in Cookery	3.74	0.44	SA	3.71	0.45	SA
2. Specific and clearly stated	3.59	0.62	SA	3.71	0.45	SA
3. Measurable	3.59	0.62	SA	3.71	0.45	SA
4. Attainable	3.59	0.56	SA	3.64	0.48	SA
5. Time-bound	3.30	0.60	SA	3.64	0.48	SA
Overall Mean:SD	3.56	0.59	SA	3.69	0.46	SA
Interpretation	Highly Acceptable			Highly Acceptable		



ISSN: 2455-7838(Online) EPRA International Journal of Research and Development (IJRD)

Volume: 6 | **Issue:** 7 | **July 2021**

- Peer Reviewed Journal

Legena:

Scale	Range	Remarks	Interpretation
4	3.25 - 4.00	Strongly Agree (SA)	Highly Acceptable
3	2.50 - 3.24	Agree (A)	Acceptable
2	1.75 - 2.49	Moderately Agree (MA)	Moderately Acceptable
1	1.00 - 1.74	Disagree (D)	Not Acceptable

Evident in the result above that level of acceptability of the parts of the E-enjoy Digitized Mobile Application in terms of objectives as perceived by thestudents was highly acceptable supported by the obtained grand (M=3.56,SD=0.59). This means that the respondents manifested that the objectives of the module was of high acceptability.

It can be seen that students strongly agree that the objectives were relevant to the topic in Cookery supported by the highest (M=3.74,SD=0.44). Similarly, students strongly agree that the objectives of the module were time-bounded as implied lowest (M=3.30, SD=0.60. This meant that students perceived the modules objectives to be meaningful in learning skills in cookery and were attainable within the allotted period.Just the same, teachers and ICT experts evaluated level of acceptability of the parts of the Eenjoy Digitized Mobile Application in terms of objectives as highly acceptable which gained the grand (M=3.69, SD=0.46). This indicates that the respondents viewed that the objectives of the module were of high acceptability.

It can be gleaned that teachers and ICT experts strongly agree that the

objectives were relevant to the topic in Cookery, specific and clearly stated and measurable which all attained the highest (M=3.71, SD=0.45). Besides, they also strongly agree that the objectives of the module were attainable and time-bounded with the lowest (M=3.64, SD=0.48. This implied that the objectives of the module were relevant, specific, clear, attainable and measurable as assessed by respondents.

This result strengthens the theory of John Dewey's Learning by Doing as cited from Reese (2011). He believed that each child was active, inquisitive and wanted to explore. Based on his theory, the learning should be relevant and practical, not just passive and theoretical. This is very applicable into the strategy of developing E-enjoy as a Digitized Learning Module whereas, the learners will be given different activities online for them to explore and discover new knowledge in accordance to its learning objectives.

Table 2. Level of acceptability of the parts of E-enJOY Digitized Mobile **Application in terms of Topics**

	1-P	piicutioi		OPICS			
STATEMENT		Students			Teachers & ICT Experts		
	Mean	SD	Remarks	Mean	SD	Remarks	
1. Sequenced according to CG	3.44	0.63	SA	3.79	0.41	SA	
2. Logically presented	3.56	0.57	SA	3.71	0.45	SA	
3. Addresses the learner's needs	3.52	0.69	SA	3.71	0.45	SA	
Overall Mean	3.51	0.63	SA	3.74	0.44	SA	
Interpretation Highly Acceptable Highly Acceptable					P		

Legend:			
Scale	Range	Remarks	Interpretation
4	3.25 - 4.00	Strongly Agree (SA)	Highly Acceptable
3	2.50 - 3.24	Agree (A)	Acceptable
2	1.75 - 2.49	Moderately Agree (MA)	Moderately Acceptable
1	1.00 - 1.74	Disagree (D)	Not Acceptable

As stated in the result above that level of acceptability of the parts of the E-enjoy Digitized Mobile Application in terms of topics as perceived by the students was highly acceptable supported by the



ISSN: 2455-7838(Online)

EPRA International Journal of Research and Development (IJRD)

Volume: 6 | Issue: 7 | July 2021

- Peer Reviewed Journal

obtained grand (M=3.51, SD=0.63). This means that the respondents manifested that the topics of the module were of high acceptability.

As clearly implied that students strongly agree that the topics were sequenced according to CG, logically presented, and addresses the learners' needs supported by the highly acceptable grand mean. Similarly, teachers and ICT Experts strongly agree that the topics of the module were appropriate as implied lowest (M=3.74, SD=0.44). This meant that they perceived the modules topics to be meaningful in learning skills in the competencies in cookery.

This is somewhat related to the theory of Robert Maynard Hutchins (1963) as cited by Lagura (2018) advocated the theory of Perennialism with the education's aim of ensuring that the students should acquire understandings about the great ideas of Western civilization. Wherein, these ideas will have the potential for solving problems in any era. The main concern of this theory is to impose a better understanding of the topics of an instructional material. This is relevant to the aim of this E-enjoy to establish better topics to aid the needs of the TLE students in cookery.

Table 3. Level of acceptability of the parts of E-enJOY Digitized Mobile
Application in terms of Exercises

rippireation in terms of Enercises						
STATEMENT	Students			Teachers & ICT Experts		
	Mean	SD	Remarks	Mean	SD	Remarks
1. Relevant to the objectives	3.52	0.57	SA	3.79	0.41	SA
2. Appropriate to the learners' abilities	3.59	0.56	SA	3.79	0.41	SA
3. Adequate to the learner's knowledge and skills	3.59	0.56	SA	3.86	0.35	SA
Overall Mean/SD	3.57	0.57	SA	3.81	0.39	SA
Interpretation	retation Highly Acceptable Highly Acceptable			le		

Scale	Range	Remarks	Interpretation
4	3.25 - 4.00	Strongly Agree (SA)	Highly Acceptable
3	2.50 - 3.24	Agree (A)	Acceptable
2	1.75 - 2.49	Moderately Agree (MA)	Moderately Acceptable
1	1.00 - 1.74	Disagree (D)	Not Acceptable

It is presented in the table above that the level of acceptability of the parts of the E-enjoy Digitized Mobile Application in terms of exercises as perceived by the students was highly acceptable supported by the obtained grand (M=3.57, SD=0.57). This means that the respondents affirmed that the given exercises in the module were of high acceptability.

This implied that the respondents strongly agree that the exercises were Relevant to the objectives, Appropriate to the learners' abilities, and Adequate to the learner's knowledge and skills as supported by highly acceptable grand mean.

Likewise, the teachers and ICT Experts strongly agree that the exercises in the module were acceptable as implied with the lowest (M=3.74, SD=0.44). This meant that they perceived the modules exercises to be appropriate and adequate enough for the

learners specifically the grade 10 students of TLE Cookery.

This is in line with the theory of Humanism by Rousseau and Pestalozzi as cited by Lagura (2018), who emphasized the nature and basic goodness of humans, understanding using senses, and advocated the idea that education is a gradual and unhurried process. If carefully processed, this education will result in the development of human character. They also believe that the learner should be in control of his or her own destiny. Because of this system of being autonomous learners, the focus of learning should be based on personal freedom, choice, and responsibility. Similar in this research, the students are much given attention by providing them step by step procedures in learning how to interact with their classmates through varied exercises that aims to enhance their performance in TLE.



ISSN: 2455-7838(Online) EPRA International Journal of Research and Development (IJRD)

Volume: 6 | **Issue:** 7 | **July 2021** - Peer Reviewed Journal

> Table 4. Level of acceptability of the parts of E-enJOY Digitized Mobile **Application in terms of Directions**

STATEMENT		Students			Teachers & ICT Experts		
	Mean	SD	Remarks	Mean	SD	Remarks	
1. Simple and clear	3.48	0.63	SA	3.93	0.26	SA	
2. Easy to follow	3.56	0.63	SA	3.93	0.26	SA	
3. Properly sequenced	3.56	0.63	SA	3.79	0.56	SA	
4. Can be done independently	3.67	0.47	SA	3.86	0.35	SA	
Overall Mean/SD	3.56	0.60	SA	3.88	0.38	SA	
Interpretation	Highly A	Highly Acceptable			Acceptab	le	

Legend:

Scale	Range	Remarks	Interpretation
4	3.25 - 4.00	Strongly Agree (SA)	Highly Acceptable
3	2.50 - 3.24	Agree (A)	Acceptable
2	1.75 - 2.49	Moderately Agree (MA)	Moderately Acceptable
1	1.00 - 1.74	Disagree (D)	Not Acceptable

As shown in the table above, the level of acceptability of the parts of the E-enjoy Digitized Mobile Application in terms of direction as perceived by the students was highly acceptable supported by the obtained grand (M=3.56, SD=0.60). This means that the respondents affirmed that the given exercises in the module were of high acceptability. Moreover, the Teachers and ICT Experts also rated with highly acceptable rating of (M=3.88, SD= 0.38). With the mean of 3.88 it is a bit higher compared to the students mean of 3.56. This implies that there is a little difference with the perspectives of the students as compared with the teachers and the ICT Experts in terms of the module's direction. However, the ratings are both highly acceptable which means that the directions are simple and clear, easy to follow, properly sequenced, and can be done independently by the students.

This is related to the ideas presented in the theory of Jean Piaget as cited by Lagura (2018), that learning using constructivism gives impact in learning the curriculum since the teachers must make a curriculum plan which enhances the students' logical and conceptual growth. This is the same with this study on developing E-enjoy as a tool to enhance the students' logical and conceptual growth in terms of giving a definite and clear direction for the Grade 10 TLE students in cookery.

Table 5. Level of acceptability of the characteristics of E-enJOY Digitized Mobile Application in terms of Functionality

Widdle Application in terms of Functionality							
STATEMENT	Students			Teachers & ICT Experts			
	Mean	SD	Remarks	Mean	SD	Remarks	
1. Program is free of technical problems	3.63	0.55	SA	3.71	0.45	SA	
2. Program is self-instructed	3.52	0.57	SA	3.71	0.45	SA	
3.Graphics and colors increase the instructional value of the program.	3.56	0.50	SA	3.57	0.49	SA	
4. Program serves its purpose.	3.70	0.46	SA	3.71	0.45	SA	
5. Program provides authorized easy access.	3.63	0.55	SA	3.86	0.35	SA	
Overall Mean/SD	3.61	0.53	SA	3.71	0.45	SA	
Interpretation	Highly Acceptable Highly Acceptable			e			



ISSN: 2455-7838(Online)

EPRA International Journal of Research and Development (IJRD)

Volume: 6 | Issue: 7 | July 2021

- Peer Reviewed Journal

Legend:				
Legena.	Scale	Range	Remarks	Interpretation
	4	3.25 - 4.00	Strongly Agree (SA)	Highly Acceptable
	3	2.50 - 3.24	Agree (A)	Acceptable
	2	1.75 - 2.49	Moderately Agree (MA)	Moderately Acceptable
	1	1.00 - 1.74	Disagree (D)	Not Acceptable

Given in the table above is the level of acceptability of the parts of the E-enjoy Digitized Mobile Application in terms of functionality. It was perceived by the students as highly acceptable which is supported by the obtained grand (M=3.61, SD=0.53). On the other hand, the Teachers and ICT Experts also rated with highly acceptable rating of (M=3.71, SD=0.45). This implies that the functionality of the module is highly acceptable in terms of the following categories: free of technical problems, self-instructed, the graphics and colors increase the instructional value

of the program, it serves its purpose, and it provides authorized easy access

This affirms with the study of John Dewey's Learning by Doing as cited from Reese (2011). According to him, the learning should be functional and practical, which is the same as the aim of E-enjoy as a Digitized Learning Module whereas, the module's functionality is given attention in order to cater the changing needs of the students for a modern and more advanced learning material such as a mobile application.

Table 6. Level of acceptability of the characteristics of E-enJOY Digitized

Mobile Application in terms of Accuracy

Mobile Application in terms of Accuracy						
STATEMENT	Students			Teachers & ICT Experts		
	Mean	SD	Remarks	Mean	SD	Remarks
1. Program contains correct information about the topic	3.70	0.53	SA	3.79	0.41	SA
2. Program provides learners the best choices for their answers	3.70	0.46	SA	3.79	0.41	SA
3. Choices reflect a certain degree of similarity in meaning but have distinct syntactic uses.	3.48	0.63	SA	3.79	0.41	SA
Overall Mean/SD	3.63	0.55	SA	3.79	0.41	SA
Interpretation	Highly A	Acceptab	ole	Highly A	Acceptabl	le

Legend:

Scale	Range	Remarks In	nterpretation
4	3.25 - 4.00	Strongly Agree (SA)	Highly Acceptable
3	2.50 - 3.24	Agree (A)	Acceptable
2	1.75 - 2.49	Moderately Agree (Ma	A) Moderately Acceptable
1	1.00 - 1.74	Disagree (D)	Not Acceptable

With the table above, it is clearly presented that the level of acceptability of the parts of the E-enjoy Digitized Mobile Application in terms of accuracy was perceived by both the students, teachers, and ICT experts as highly acceptable. With the students' obtained grand of (M=3.63, SD=0.55) and the teachers and ICT Experts obtained grand of (M=3.79, SD=0.41), it clearly shows that the accuracy of the module is highly acceptable in terms of the following categories: the program contains correct information about the topic, it provides learners the best choices for

their answers, and the choices reflect a certain degree of similarity in meaning but have distinct syntactic uses.

This is true with the theory presented by Robert Maynard Hutchins (1963) as cited by Lagura (2018). Wherein, he advocated the theory of Perennialism with the education's aim of ensuring that the students should acquire accurate understandings that will be a good potential in solving future problems. This accuracy is emphasized by this E-enjoy module by adhering to the standard of DepEd K-12 system and its



ISSN: 2455-7838(Online) EPRA International Journal of Research and Development (IJRD)

Volume: 6 | **Issue:** 7 | **July 2021** - Peer Reviewed Journal

curriculum guide in TLE Grade 10 specifically in cookery.

It is clearly presented in the table above that the level of acceptability of the parts of the E-enjoy Digitized Mobile Application in terms of suitability was perceived by both the students, teachers, and ICT experts as highly acceptable. With the students' obtained grand of (M=3.65, SD=0.57) while the teachers and ICT Experts obtained grand of (M=3.88, SD= 0.32), it clearly shows that the suitability of the module is highly acceptable in terms of the following categories: activities consider the varying attitudes and capabilities of the learner, these are appropriate to the subject matter, and these are relevant, interesting, and self-motivating to the learner.

Table 7. Level of acceptability of the characteristics of E-enJOY Digitized **Mobile Application in terms of Suitability**

STATEMENT	Students			Teachers & ICT Experts		
	Mean	SD	Remarks	Mean	SD	Remarks
1. Activities consider the varying attitudes and capabilities of the learner	3.67	0.61	SA	3.79	0.41	SA
2. Activities are appropriate to the subject matter	3.52	0.63	SA	3.93	0.26	SA
3. Activities are relevant, interesting, and self-motivating to the learner.	3.78	0.42	SA	3.93	0.26	SA
Overall Mean/SD	3.65	0.57	SA	3.88	0.32	SA
Interpretation	Hi	ghly Acc	ceptable	Н	ighly Ac	ceptable

Legend:			
Scale	Range	Remarks	Interpretation
4	3.25 - 4.00	Strongly Agree (SA)	Highly Acceptable
3	2.50 - 3.24	Agree (A)	Acceptable
2	1.75 - 2.49	Moderately Agree (MA)	Moderately Acceptable
1	1.00 - 1.74	Disagree (D)	Not Acceptable

It is affirmed with the theory instrumentalism by Dewey, wherein he sees the value of an idea or tool being its use as an instrument for getting result. With the high standard of suitability, this follows the idea of instrumentalism whereas, in this research, the use of Digitized Learning Mobile Application will be used in order to obtain the best result in the TLE performance of the grade 10 cookery students.

As presented in the table above, the level of acceptability of the parts and the characteristics of the E-enjoy Digitized Mobile Application in terms of suitability was perceived by both the students, teachers, and ICT experts as highly acceptable. With the students' obtained grand of (M=3.65, SD=0.57) while the teachers and ICT Experts obtained grand of (M=3.88, SD= 0.32), it clearly shows that the suitability of the module is highly acceptable in terms of the following categories: activities consider the varying attitudes and capabilities of the learner, these are appropriate to the subject matter, and these are relevant, interesting, and self-motivating to the learner.

Table 8. Level of Acceptance of E-enJOY Digitized Mobile Application of the Respondents

the respondents							
CRITERIA	Stude		lents	Tea	chers & 1	ICT Experts	
	Mean	SD	V. I.	Mean	SD	V. I.	
Parts							
Objectives	3.56	0.59	Highly Acceptable	3.69	0.46	Highly Acceptable	
Topics	3.51	0.63	Highly Acceptable	3.74	0.44	Highly Acceptable	
Exercises	3.57	0.57	Highly	3.81	0.39	Highly	



ISSN: 2455-7838(Online)

EPRA International Journal of Research and Development (IJRD)

Volume: 6 | Issue: 7 | July 2021

- Peer Reviewed Journal

Characteristics			*** **	1	1	
Functionality	3.63	0.55	Highly Acceptable	3.79	0.41	Highly Acceptable
Accuracy	3.63	0.55	Highly Acceptable	3.79	0.41	Highly Acceptable
Suitability	3.65	0.57	Highly Acceptable	3.88	0.32	Highly Acceptable
Overall Mean/SD	3.59	0.03	Highly Acceptable	3.80	0.04	Highly Acceptable

Legend:

Scale	Range	Remarks	Interpretation
4	3.25 - 4.00	Strongly Agree (SA)	High Acceptable
3	2.50 - 3.24	Agree (A)	Acceptable
2	1.75 - 2.49	Moderately Agree (MA)	Moderately Acceptable
1	1.00 - 1.74	Disagree (D)	Not Acceptable

This affirms with the study of Humanism by Rousseau and Pestalozzi as cited by Lagura (2018), wherein, they advocated the idea that education is a gradual and unhurried process. If carefully processed, this education will result in the development of the students. This is the same aim of this study of developing E-enjoy to create a mobile application that will adhere to the standard of appropriate instructional material in terms of the following categories: objectives, topics, exercises, directions, functionality, accuracy and suitability. These categories are relevant to the changing needs of the students in the 21st century.

Significant difference on the Level of Acceptability of E-enJOY Digitized Mobile Application as rated by the Respondents

Minitab 14 was used in computing the data gathered and treated them statistically using Two Sample T-Test. The computed p-values were compared to the level of significance at 0.05 to determine the Significant difference on the level of acceptability of E-enJOY Digitized Mobile Application as rated by the respondents.

Table 9. Significant difference on the Level of Acceptability of E-enJOY Digitized Mobile Application as rated by the Respondents

	Variables	t-value	p-value	Analysis
Parts	Objectives	-0.93	0.361	Not Significant
	Topics	-1.67	0.106	Not Significant
	Exercises	-1.91	0.064	Not Significant
	Directions	-2.51	0.014	Significant
Characteristics	Functionality	-0.85	0.400	Not Significant
	Accuracy	-1.23	0.227	Not Significant
	Suitability	-1.96	0.057	Not Significant

^{*}significant at .05 level of significance

The result above reveals the significant difference among the ratings given by the group of respondents on the level of acceptability of E-enJOY Digitized Mobile Application.

Presented in the table that the obtained p-values of 0.361, 0.106, 0.064, 0.400, 0.227 and 0.057 in terms of objectives, topics, exercises, functionality, accuracy and suitability respectively as rated by students and teachers/ICT experts were all higher than



ISSN: 2455-7838(Online) EPRA International Journal of Research and Development (IJRD)

Volume: 6 | Issue: 7 | July 2021 - Peer Reviewed Journal

the 0.05 level of significance which indicated a not significant analysis. This further implied that there was no significant difference on the level of acceptability of E-enJOY Digitized Mobile Application as rated by the respondents. This means that the group of respondents have the same perspective on the level of acceptability of E-enJOY Digitized Mobile Application.

However, the directions in the module gained the p-value of 0.014 which was lower than the 0.05 level of significance implied a significant analysis. This meant that there was a significant difference on the level of acceptability of the directions of the module as rated by the respondents. This further explained that the groups of respondents' evaluations on the level of acceptability of the objectives of E-enJOY Digitized Mobile Application were not the same.

It is somewhat the same as the study of Jean Piaget as cited by Lagura (2018), that learning using constructivism gives impact in learning the curriculum. This is because the teachers are carefully planning and creating an innovation in enhancing the students' logical and conceptual growth based on their objectives. This is the same with this study in developing E-enjoy as a tool to enhance the students' competencies in TLE with the clear objective of providing them with a digitized module that will better help them understand more of the concepts in cookery.

VII. **CONCLUSION**

Based on the salient findings stated in the previous section, the following conclusions were drawn. The null hypothesis stating that there is no significant difference with the level of acceptability of the respondents with the E-enJOY is partially accepted. It means that the respondents gave unanimously the same high rating in terms of acceptability of the said mobile application. It indicates that respondents are very positive in the development of E-enJOY in aiding the students' needs in innovative learning material in TLE Cookery.

Thus, because of the desirable outcome of the study, the E-enjoy can be used as a basis of the student's performance as prescribed by the Department of Education. This will serve as an innovative material to aid the needs of the students in their TLE classes.

RECOMMENDATIONS

As seen in the findings and conclusions in the study, the following were recommended:

1. There is a need for the Schools Division of Santa Rosa to consider the E-enjoy as learning materials to upgrade the standard of quality public education.

- There is a need for Sto. Domingo Integrated High School to adopt the E-enJOY in TLE10 to facilitate effective teaching and learning process of Grade 10 cookery students.
- There is a need to encourage faculty members to develop IMs to enhance more of the students' performance.
- 4. Let the students used the E-enJOY Digitized Mobile Application to facilitate offline and independent learning.

REFERENCES

- 1. Abbad M, Morris D and De Nahlik C (2009) "Looking under the bonnet: factors affecting student adoption of e-learning systems in Jordan' The Int. Review of Res. in Open and Distance Learning vol 10 no 2
- Anshuman khare, Deborah Hurst (2018). "On the Line: Business Education in Digital Age. Springer International Publishing.
- 3. Beatty, I., & Gerace, W. (2009). Technologyenhanced formative assessment: A research-based pedagogy for teaching science with classroom response technology. Journal of Science and Technology, 18(2), 146-162.
- 4. Bernard, R. M., Abrami, P. C., Lou, Y., Borokhovski, E., Wade, A., Wozney, L. Huant, B. (2004). How does distance education compare with classroom instruction? A meta-analysis of the empirical literature. Review of Educational Research, 74(3), 379-439.
- 5. Bielaczyc, K. and Collins, A. (1999). "Learning communities in classrooms: A reconceptualization of educational practice". In Instructional- design theories and models, a new paradigm of instructional theory, Edited by: Reigeluth, C. M. Vol. 2, 269-292
- Bransford, J. D., Sherwood, R. D., Hosselbring, T. K. and Williams, S. S., Kinzer, C. **M.** (1990). "Anchored instruction: Why we need it and how technology can help". In Cognition, education and multimedia: Exploring ideas in high technology, by: Nix, D. and Spiro, R. Hillsdale, Edited NJ: Lawrence Erlbaum Associates
- 7. Buabeng-Andoh, C. (2012). "Factors Influencing Teachers' Adoption and Integration of Information and Communication Technology into Teaching: A Review of the Literature." International Journal of Education and Development Using ICT 8 (1): 79-
- Butler, D., & Winne, P. (1995). Feedback and selfregulated learning: A theoretical synthesis. Review of Educational Research, 65(3), 245-281.
- Caine, R. N., & Caine, G. (2011). Natural learning for a connected world: Education, technology, and the human brain. New York, NY: Teachers College



EPRA International Journal of Research and Development (IJRD)

Volume: 6 | Issue: 7 | July 2021

- Peer Reviewed Journal

ISSN: 2455-7838(Online)

- 10. Clark, R. C., & Mayer, R. E. (2011). E-learning and the science of instruction: Proven guidelines for consumers and designers of multimedia learning (3rd ed.). San Francisco, CA: Pfeiffer
- 11. Dabbagh, N. and Bannan -Ritland, B.(2005). "Online learning: Concepts, strategies and application" Upper Saddle River, NJ: Pearson Education
- 12. **Doug Johnson (2012).** "The Classroom Teachers" Teachnology Survival Guide 1st Edition. Sringer International Publishing.
- 13. European Commission. (2013).Supporting Teacher Competence Development for Better Learning Outcomes. Brussels: European Commission Education and Training UE.
- 14. Felix Librero (2018). Distance education in the Philippines: Issues and Concerns. University of the Philippines Open University. ISBN 9717672032
- 15. Ferrari, A. (2013). DIGCOMP: A Framework for Developing and Understanding Digital Competence in Europe. Luxembourg: Publications Office of the European Union
- 16. Fulford, C. P. and Zhang, S. (1993). "Perceptions of interaction: The critical predictor in distance education". American Journal of Distance Education, 7: 8-21.
- 17. Guerriero, S., ed. (2017). Pedagogical Knowledge and the Changing Nature of the Teaching Profession. Paris: OECD
- 18. Hülsmann, T., & Shabalala, L. (2016). Workload and interaction: UNISA's signature courses - a design template for transitioning to online DE? Distance Education, 37, 224-236. doi:10.1080/01587919.2016.1191408
- 19. John Wiley And Sons Inc; (February 7, 2012). "21st Century Skills: Learning for Life in Our Times 1st Edition. Jon Wiley and Sons Inc. ISBN-13 978-1118157060
- 20. Kandhana, Tejinder (2021). "Mobile Applications: Designs, Development and Optimization. Publishers Spring International Publishing
- 21. Kathleen N. Kopp (2015)." Integrating Technology Into the Curriculum" 2nd Edition. Shell Education. 22. **Mishra**, **P.**, and **M.** J. Koehler. (2006).
- "Technological Pedagogical Content Knowledge: A Framework for Teacher Knowledge." Teachers College Record 108 (6): 1017-1054.
- 23. Naidu, S. (2016). The case for open educational practice. Distance Education, 37, 1–3. doi:10.1080/01587919.2016.1157010
- 24. Naidu, S. (2017). Openness and flexibility are the norm, but what are the challenges? Distance Education, 38, 1-4. doi:10.1080/01587919.2017.1297185
- 25. Russell, G., and G. Finger. (2007). "ICTs and Tomorrow 's Teachers: Informing and Improving the ICT Undergraduate Experience." In Handbook of Teacher Education, edited by T. Townsend and R. Bates, 625-640

- 26. https://www.pewresearch.org/facttank/2019/01/17/where-millennials-end-andgeneration-z-begins/
- 27. https://www.pewresearch.org/socialtrends/2020/05/14/on-the-cusp-of-adulthood-andfacing-an-uncertain-future-what-we-know-aboutgen-z-so-far-2/
- 28. https://iopscience.iop.org/article/10.1088/1757-899X/482/1/012008/pdf
- 29. hemanifest.com/mobile-apps/benefits-making-yourapp-work-offline
- 30. https://www.digitaldoughnut.com/articles/2018/febr uary/why-you-should-develop-an-offline-mobile-
- 31. http://kwalingpinoy.com
- 32. https://panlasangpinoy.com