

Development and Validation of Information and Communications Technology (ICT)-Based Edukasyon sa Pagpapakatao 10 Module

Melquisedec Edwin C. Ocumen, Ed.D., Liza Lanuza-Quimson, Ed.D.

*Pangasinan State University; Open University Systems
melquisedecedwin@gmail.com, lizaquimson@yahoo.com*

Abstract. The study concerned itself on developing an Information and Communications Technology (ICT)-based instructional material for Values Education subject for Grade 10. The instructional materials were in the form of a series of modules where information and communications technological concepts are integrated in the presentation of the lesson and in the student activities. The research subjects of this study were the Grade 10 students in Lareg-Lareg National High School. There are 100 participants in the study. This study was conducted this school year 2018-2019. In this research, developmental method is used when the researcher will develop and validate ICT-integrated module for Grade 10 students in Values Education. The proposed Information Communications and Technology based Edukasyon sa Pagpapakatao 10 module was evaluated by the experts, the user and the end user using validated questionnaires. There were five evaluators for content validity, five evaluators for structure validity. Twenty high school teachers served as evaluators for the acceptability of the proposed instructional material and 100 students participated for the research. The researcher determined the validity of the proposed instructional material based on the evaluation of the higher authorities by distributing evaluation forms to the 5 validators. The level of acceptability of the proposed ICT-integrated instructional material was determined through an evaluation form distributed to the 20 teachers. And the researcher determined the level of competencies of the 100 Grade 10 students in Values Education by conducting a post-assessment after using the ICT-integrated Module in Values Education. This present study has the following salient findings: The average weighted mean of the criteria enumerated in the validation for content is 4.48 which is equivalent to extremely valid, the average weighted mean of the criteria enumerated in the validation for structure is 4.50 which is equivalent to extremely valid, the 20 teacher respondents considered the ICT-based instructional material as Very Highly Acceptable with a weighted mean of 4.53. There is a significant difference on the post test scores of the experimental group and the control group thus the researcher has the following conclusions: the developed module in Edukasyon sa Pagpapakatao 10 possesses content validity and it is in line with the curriculum guide of Edukasyon sa Pagpapakatao, therefore the module made by the researcher is valid, acceptable, reliable and effective. The respondents are in agreement that the developed module meets the criteria in designing instructional materials which can be used in enhancing the teaching-learning process. Students score favorably on the items given in the modules and this conveys that the students can do tasks on their own. Based on the results and conclusions of the study, the following recommendations are given: this module created by the researcher can be used as an instructional material for Edukasyon sa Pagpapakatao 10 since the present research proved that it is valid, reliable, acceptable and effective, worktext and modules should be considered as an instructional material and be used in the teaching-learning process of the course, teachers/professors should be motivated to make their own worktext/module/ instructional materials and the school administration should provide support in the production of this worktext and other instructional materials produced by faculty members.

Keywords: ict based module, values education, instructional materials

INTRODUCTION

The DepEd is vested with the authority, accountability and responsibility for ensuring success to promote quality education. The Researcher believes that quality education can provide people with the means to assess and construct their own values and provides a foundation for the continued education that is essential to personal and professional fulfillment.

With the introduction of computer education into secondary school curricula, there is an urgent need to examine the teachers' extent of utilization of the various kits coupled with other uses of the computer such as in instructional delivery process (e.g., the use of Computer Assisted Instruction/Learning (CAL) and Computer Managed Instruction or Learning, (CMI) and educational administration. In the secondary schools in Pangasinan, Information and communication technology has reached its influence. [1]

There is now the presence of Information and Communication Technology facilities and equipment that is available for both students and teachers. Teachers utilize technology in their daily lessons. To help today's students prepare for tomorrow's world, the goals of school must be appropriate for the demands of a global economy in an age of information. One of the innovative strategies to achieve this is through modular instructions. A modular instruction provides the basis for a close interaction between the learner and the subject matter, that the learner is called upon to respond actively in the interaction with an instructional program, and that the rate at which the interaction proceeds are governed individually by each learner's response. The module is an innovation among developed and developing countries whose impact is brought by projects on the preparation and use of modules of different offices like the Asia Center of Innovations in Education Innovation. It is an instructional material which possesses the qualities that will make the individual an independent learner, self-pacing and progressing at his own rate, finally giving him the feeling of self-satisfaction, the very essence of modular instruction.

OBJECTIVES OF THE STUDY

This study was conducted in Lareg-Lareg National High School. This study concerned itself on developing an instructional material for Values Education subject for Grade 10. The instructional materials were in the form of a series of modules where information and communications technological concepts

are integrated in the presentation of the lesson and in the student activities. The research subjects of this study were the Grade 10 students in Lareg-Lareg National High School. There are 100 participants in the study comprises of two intact classes with 50 students each class. This study was conducted this school year 2018-2019.

MATERIALS AND METHOD

This research used quantitative type of research specifically descriptive and developmental methods of research. [2] [33]. Quantitative research is the traditional scientific method which uses a general set of orderly, disciplined procedures to acquire information. In this present research, descriptive method is used to determine the extent of the content of the given subject which is Values Education for Grade 10 students in Junior High School, as well as the activities and rubrics for each content knowledge and performance task. The proposed Information Communications and Technology based Edukasyon sa Pagpapakatao 10 module will be evaluated by the experts, the user and the end user using validated questioners. Developmental research is defined as the systematic study of designing, developing, and evaluating instructional programs, processes, and products that must meet the criteria of internal consistency and effectiveness [3]. Developmental research is particularly important on the field of instructional technology. In this research, developmental method is used when the researcher will develop and validate ICT-integrated module for Grade 10 students in Values Education. [4]

RESULTS AND DISCUSSION

Profile of the Respondents

There were 4 different groups of respondents for this research study. The first group were 5 experts determined the validity in the content on the proposed instructional materials. 3 or 60% are females and 2 or 40% are males. 20% belongs to the age group of 36-50 years old and 4 or 80% belong to the age group. all the five evaluators (100%) have finished the Doctoral Degree. of 51-65 years of age. The evaluators for the Validity of Content have the following positions: 1 or 20% is a Public Schools Division Superintendent, 2 or 40% are Education Program Supervisors, 1 or 20% is a Division Chief and 1 or 20% is a Senior Education Program Supervisor. All of them are from the Pangasinan 1 Division. For the number of years in

service in the Department of Education, all 5 (100%) of them have 16-30 years of service. This means that they are very competent to serve as evaluators because of their length of experience and the educational background.

The Second group were 5 experts determined the validity in the structure on the proposed instructional materials In terms of gender, 3 or 60% of the evaluators are males and 2 or 40% are females. The age of the 5 evaluators all belongs to the age group of 36 to 50 years of age. Three or 60% of the evaluators have finished their Doctoral Degree while two or 40% have finished their Masteral Degree with Doctoral Units. On their designation or position in the Department of Education, the evaluators are functioning as follows: 2 or 40% are Information and Technology Officers, one (20%) is a Planning Officer, another one (20%) is an Education Program Supervisor III and one is a Senior Education Program Specialist. All the evaluators (100%) have been serving in the Department of Education for 16-30 years. This qualifies them to be reliable evaluators for the structure of the proposed instructional material. [5]

The third group were evaluators who determined the acceptability of the proposed instructional materials 14 or 70% are females and 6 or 30% are males. the age of the respondents wherein 12 or 60% of the respondents belong to the age group of 36-50 years old and 8 or 40% of the respondents belong to the 20-35 years of age. The highest educational attainment earned by 2 (10%) respondents is Doctoral Degree. 6 or 30% have finished masters with Doctoral units, 6 or 30% are full pledged Masters in Education and 6 or 30% are Bachelor’s Graduate with Masteral Units. When it comes to designation or position, 6 or 30% of the respondents are Teacher III, 3 or 15% are Head Teacher III, and 3 or 15% are Master Teacher II. There are 2 (10%) who are head teacher I in position, 2 (10%) who are Teacher II and 2 (10%) are Teacher I in position. 14 or 70% of the respondents have been in service for 16 to 30 years, 4 or 20% have services below 15 years and two (10%) have been in service for more than 30 years.

Level of validity in the content of the information communications technology- based edukasyon sa pagpapakatao 10 module

Table 1 presents the level of validity in the content of the Information and Communications Technology-based Edukasyon sa Pagpapakatao 10

module as evaluated by the 5 experts in the field. Of the ten evaluation criteria, 9 were considered are “extremely valid” and one criteria as “Highly Valid.” The criteria which states that the text and activities provide opportunities for the development of the knowledge and a particular skill in research has the perfect mean of 5.00 which is considered as extremely valid. [6] This is followed by three items which all have a mean of 4.80 and these are: the content helps in understanding and remembering the information, the themes, messages, and concepts accurately reflected current social and economic realities and lessons were developed with learner input or were learner-directed[7] . There were also four evaluation fields with a mean of 4.40 which is interpreted as “extremely valid” and these are: the work text follows logical sequence and progress of lesson, the material can be adapted to respond to the needs, interests, and goal of the learner, the learning goals were clearly stated before each unit or lesson and the learners could see themselves, their values, and their realities in the themes, messages, and concepts that supported learning. [8] The content motivates the students to synthesize, apply and review past lessons has a weighted mean of 4.20 which is still considered as “extremely valid” and the evaluation field with the least weighted mean of 3.60 is the content is adequate to comprehend and analyze the lesson which is interpreted as “highly valid” in descriptive equivalent. [9]

**Table 1
Level of Validity in the content of the information communications technology-based edukasyon sa pagpapakatao 10 module**

Evaluation Field	5	4	3	2	1	X	DE
1. The content is adequate to comprehend and analyze the lesson	1	3	1	0	0	3.60	HV
2. The work text follows logical sequence and progress of lesson.	3	1	1	0	0	4.40	EV
3. The content helps in understanding and remembering the information	4	1	0	0	0	4.80	EV
4. The text and activities provide opportunities for the development of the knowledge and a particular skill in research	5	0	0	0	0	5.00	EV

5. The content motivates the students to synthesize, apply and review past lessons	1	4	0	0	0	4.20	EV	
6. The material can be adapted to respond to the needs, interests, and goal of the learner	3	1	1	0	0	4.40	EV	
7. the learning goals were clearly stated before each unit or lesson	3	1	1	0	0	4.40	EV	
8. the themes, messages, and concepts accurately reflected current social and economic realities	4	1	0	0	0	4.80	EV	
9. learners could see themselves, their values, and their realities in the themes, messages, and concepts that supported learning	3	1	1	0	0	4.40	EV	
10. lessons were developed with learner input or were learner-directed	4	1	0	0	0	4.80	EV	
Over-all Mean	4.48	Extremely Valid						
5 – Extremely Valid						2 – Slightly Valid		
4 – Highly Valid						1 – Not Valid		
3 – Valid								

Table 2 presents the level of validity in the structure of the Information and Communications Technology-based Edukasyon sa Pagpapakatao 10 Module. It can be gleaned from the table that out of the ten evaluation areas, eight are considered as “extremely valid” and two as “highly valid.” The evaluation area with the highest mean is the layout of the material looks uncluttered; therefore, it is not intimidating with a mean of 5.00. This is followed by The language is appropriate for the students, the use of visuals breaks up the text and helps the reader to understand it and lessons used multiple approaches to accommodate various learning styles where all of the three items have a weighted mean of 4.80. Three items have weighted mean of 4.60. They are as follows: the illustrations used are simple and appropriate for the topic being discussed, the format, font size of letters are simple, clear and readable and lessons were set up so learners could advance at their own pace, [10] even if they skipped ahead or spent more time on a particular unit. The subject matter and the way it was presented were sensitive to the socio-economic, cultural, and linguistic differences of learners has a weighted mean of 4.40 which is still considered as “extremely

valid.” The discussion in the lessons are explained well and easy to understand with a weighted mean of 3.80 and the progress of the lesson allows for review, comparison, and interpretation of the lesson with a mean of 3.60 are the criteria for structure validity that are considered as “highly valid.” [11]

Table 2
Level of Validity in the Structure of the information communications technology-based edukasyon sa pagpapakatao 10 module

Evaluation Field	5	4	3	2	1
1. The discussion in the lessons are explained well and easy to understand	2	2	1	0	0
2. The illustrations used are simple and appropriate for the topic being discussed	3	2	0	0	0
3. The format, font size of letters are simple, clear and readable	3	2	0	0	0
4. The language is appropriate for the students	4	1	0	0	0
5. The progress of the lesson allows for review, comparison, and interpretation of the lesson	0	3	2	0	0
6. The layout of the material looks uncluttered; therefore it is not intimidating	5	0	0	0	0
7. The use of visuals breaks up the text and helps the reader to understand it	4	1	0	0	0
8. the subject matter and the way it was presented were sensitive to the socio-economic, cultural, and linguistic differences of learners	3	1	1	0	0
9. lessons were set up so learners	3	2	0	0	0

could advance at their own pace, even if they skipped ahead or spent more time on a particular unit					
10. lessons used multiple approaches to accommodate various learning styles	4	1	0	0	0
Over-all Mean	4.50	<i>Extremely Valid</i>			
5 – Extremely Valid		2 – Slightly Valid			
4 – Highly Valid		1 – Not Valid			
3 – Valid					

The level of Acceptability of the Information and Communications Technology-based Edukasyon sa Pagpapakatao 10 Module is presented in Table 3. The evaluators in this area are the 20 teachers in Malasiqui District who are handling the subject Edukasyon sa Pagpapakatao. There were three major areas for evaluation namely format and language used, content and performance standards and usefulness. There was a total of 15 items up for evaluation. With these 15 items, 14 were considered as “very highly acceptable” and one as “highly acceptable.” On the area of format and language used, four items were considered as very highly acceptable and one as highly acceptable. The language is appropriate for the students has a weighted mean of 4.34, the illustrations used are simple and appropriate for the topic being discussed and the format, font size of letters are simple, clear and readable have a mean of 4.53 and The progress of the lesson allows for review, comparison, and interpretation of the lesson has a mean of 4.22. These four areas of the ICT-based module is considered as “very highly acceptable.” The only “highly acceptable” evaluation field is the discussion in the lessons are explained well and easy to understand with a weighted mean of 4.05.

Table 3
Level of Acceptability of the information communications technology-based edukasyon sa pagpapakatao 10 module

On the area of Content and performance standards, the item with the highest mean of 4.80 is the content is adequate to comprehend and analyze the lesson. This is followed by the work text follows logical sequence and progress of lesson with a weighted mean of 4.75. The third one is the content helps in understanding and remembering the information with a mean of 4.50. Both the text and activities provide opportunities for the

development of the knowledge and a particular skill in research and the content motivates the students to synthesize, apply and review past lessons have a mean of 4.30. All the evaluation fields in this area are considered as very highly acceptable by the evaluators. The third major area of evaluation for the acceptability of the ICT-based instructional material in Edukasyon sa Pagpapakatao is the usefulness of the module. It can be gleaned from the table that all the items in the area of usefulness is considered as very highly acceptable by the respondents. The criteria with the perfect 5.00 mean is The material is convenient and easy to carry. This is followed by the materials allows the students to apply concepts in problem solving at 4.95, the material is a useful guide to learn the lesson with minimum aid from the teacher at 4.75, The work text leads students for advanced reading and become active learners at 4.60 and The material enhances the student’s creativity, reasoning and critical thinking skills at 4.30 weighted mean. The findings revealed that expert- respondents found that the modules were presented with clear direction. [12] The respondents viewed the module as simple and easy to understand. This could imply that the developed ICT-based module in Edukasyon sa Pagpapakatao could be use by the students since it is simple, easy to understand and has a clear direction. As gleaned from the table, experts perceived that the usefulness of the developed module on real-life task is very much accepted since it obtained a weighted mean of 4.72. The findings imply that the developed instructional material is useful because the respondents evaluated and perceived that the developed material has attainable objectives, appropriate contents, provide good illustrations and photos which will help students to gain better learning scheme [13] [34].

The level of competence of the experimental and controlled group of grade 10 students in edukasyon sa pagpapakatao

Table 4 presents the post test results of the two groups of students. The experimental Group made use of the Leaning Module in Edukasyon sa Pagpapakatao while the Control Group had the usual lecture and discussion method.

Table 4
Level of competence of the experimental and controlled group of grade 10 students in edukasyon sa pagpapakatao

Table 4

Posttest Performance of the Control Group and Experimental Group

	group	N	Mean	Std. Deviation	Std.
Posttest Performance	experimental	50	39.8000	4.53107	.64079
	control	50	32.3800	3.91173	.55320

It can be noted from the table that the mean percentage score of the experimental group which is 39.8 is higher than the mean percentage score of the control group which is 32.38. [14] This means that the experimental group obtained higher scores than the control group. The experimental group had a highest score of 47 which is equivalent to 97% and a lowest score of 32 which is equivalent to 82%. The lowest score is still considered as a good performance for the students who use the Information and Communications Technology-based module in Edukasyon sa Pagpapakatao. The high scores of the students in the experimental group shows that there is an improvement in their performance when the used the ICT-based module in Edukasyon sa Pagpapakatao. [15] This proves the importance of using innovative strategies of teaching to increase the learning of the students and to help them become more interested and engaged in the learning process. [16]

Significant Difference between the Posttest Score of the Controlled and Experimental group.

Table 6 presents the T-test computation of the post test scores of the students. The mean of Experimental Group minus Control Group equals 7.42 95% confidence interval of this difference: From 5.74 to 9.10. The intermediate values used in calculations are $t=8.7650$ with a degree of freedom of 98. The two tailed P value is less than 0.0001, by conventional criteria, this difference is considered to be statistically significant. [17]

This mean that the null hypothesis of “There is no significant difference on the level of competence of the Grade 10 students of Lareg-Lareg National High School in their post-assessment results” is rejected. The importance of using modules in teaching cannot be over-emphasized. The module identifies examples, tasks and exercises and allocates spaces for them. Students and teachers discuss these tasks and exercises to relate input to application. Hence, the note taking becomes systematic and organized, and the time taken to teach the topic is reduced considerably, since the crucial visual and verbal elements are already provided. [18]

Table 5

Significant Difference between the Posttest Score of the Controlled and Experimental group

Variables Compared	Mean	Mean Difference	t	Df	Sig. (2 tailed)
Posttest of control group	32.38				
Experimental group	39.8	7.42	8.756	98	.000

Table 5 presents the T-test computation of the post test scores of the students. The mean of Experimental Group minus Control Group equals 7.42 95% confidence interval of this difference: From 5.74 to 9.10. The intermediate values used in calculations are $t=8.7650$ with a degree of freedom of 98. [19] The two tailed P value is less than 0.0001, by conventional criteria, this difference is considered to be statistically significant. [20] This mean that the null hypothesis of “There is no significant difference on the level of competence of the Grade 10 students of Lareg-Lareg National High School in their post-assessment results” is rejected. The importance of using modules in teaching cannot be over-emphasized. [21] The module identifies examples, tasks and exercises and allocates spaces for them. Students and teachers discuss these tasks and exercises to relate input to application. [22] Hence, the note taking becomes systematic and organized, and the time taken to teach the topic is reduced considerably, since the crucial visual and verbal elements are already provided. [23]

Figure 1
Histogram of the Posttest performance of the Experimental Group

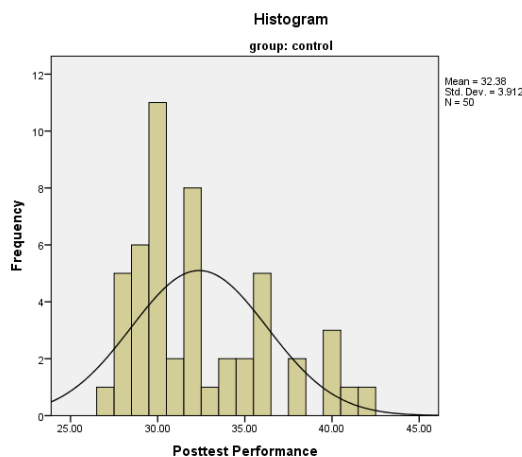


Figure 1 presents the Posttest Performance of the experimental group. The mean score of the group is 39.80 with standard deviation of 4.531. The graph has a skewness of .040 which presents a normal curve with the standard error of skewness of .337. A skewness of -1 to 1 is an acceptable range for a normal distribution. The graph has a kurtosis of -1.061 with a standard error of .662. The distribution is more of mesokurtic since there is no large negative number which will result to platykurtic or a large positive number which reflects leptokurtic curve. [24]

Figure 2
Histogram of the Posttest performance of the Controlled Group

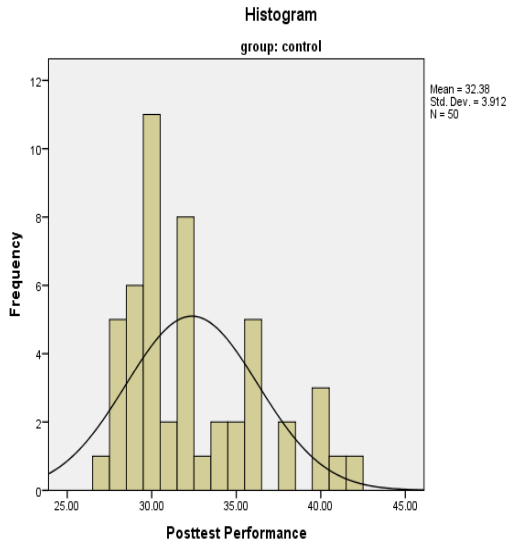


Figure 2 presents the Posttest Performance of the control group. The mean score of the group is 32.38 with standard deviation of 3.912. The graph has a skewness of .900 which presents a normal curve with the standard error of skewness of .337. A skewness of -1 to 1 is an acceptable range for a normal distribution. The graph has a kurtosis of -.140 with a standard error of .337. The distribution is more of mesokurtic since there is no large negative number which will result to platykurtic or a large positive number which reflects leptokurtic curve. [25]

Figure 3
Boxplot showing the comparison of the Experimental and Controlled Group

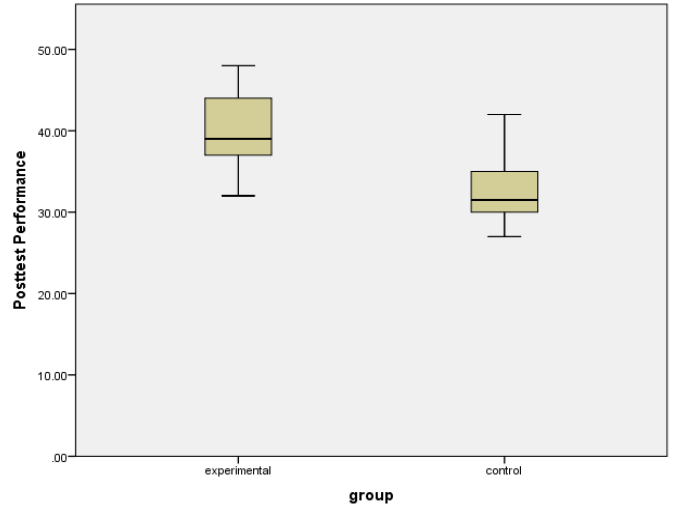


Figure 3 shows the posttest performance of the two groups. It can be seen by their mean that the experimental groups scored higher than the control group thus supporting the findings of the study the Researcher-made Information and Communication Technology-Based Module in Edukasyon sa Pagpapakatao is effective, reliable and valid. [26]

Teaching with all these elements available to instructor and students leads to effective teaching and learning. The time saved for having a table or chart in the right time and location can be channeled to critical thinking, asking questions, and in-class group work. Using a module to teach also provides the students with objectives, visual elements, language input, and exercises in a categorized way. [27] Both teacher and students can collaborate actively during the lecturing as they complete the missing or incomplete visual and verbal elements, and discuss tasks and applications. The module also provides students with organized course notes, hence leaving more time for critical thinking and interactions with the instructor. Last but not least, the module provides easy access to input on language expression, grammar and tenses, texts and examples, leading to effective review of the course material and learning outcomes. [28] From the findings, it can be surmised that the respondents support the use of the module as an important tool in the teaching and learning of Edukasyon sa Pagpapakatao as it can guide students to better understand what they can expect to know and be

able to do at the end of the learning process. Training and experience can equip the teacher to know the needs of their students, and thus teachers can and should, create teaching modules to fit the specific needs of their students. Furthermore, helping young people to identify the ways that they learn best and providing them with opportunities to use all their senses and different intelligences is one of the key challenges for teachers[29].

Based on the findings given, it could be postulated that the null hypothesis is accepted.

CONCLUSIONS AND RECOMMENDATIONS

Evaluators who determined the Validity in the Content of the proposed Instructional Materials are Female, old aged, married, doctoral degree holder, working at the Schools Division Office 1 Pangasinan and administrators for almost 16 years above. While Evaluators who determined the Validity in the Structure of the proposed Instructional Materials are male, middle aged, married, doctoral degree holder, working at the Schools Division Office 1 Pangasinan and administrators for almost 16 years above lastly Evaluators who determined the Acceptability of the proposed Instructional Materials are Female, middle aged, married, master's degree holder with doctoral units, working at the Malasiqui District I and II and teachers for almost 16 years above.

This module created by the researcher can be used as an instructional material for Edukasyon sa Pagpapakatao 10 since the present research proved that it is valid, reliable, acceptable and effective. [30]

While the use of modules for instruction develops independent learning, it is recommended that during the implementation phase of the module, strengths and weaknesses be identified. [31] That is, in lessons/tasks where students did not quite do well, more exercises or activities be developed. The worktext and modules should be considered as an instructional material and be used in the teaching-learning process of the course. The worktext and modules should be tried out in other school to further improve its effectiveness and practicability. [32] Teachers/professors should be motivated to make their own worktext/module/instructional materials. It is recommended that teachers conduct relative researches on module preparation to include areas such as the use of rubrics to evaluate the outputs, to include content teachers to validate the inputs on various areas, and to increase the number of

participants or respondents. The school administration should provide support in the production of this worktext and other instructional materials produced by faculty members.

REFERENCES

- [1] AGNO, LYDIA N. (2009). "Principles of Teaching 1". C & E Publishing.
- [2] CALMORIN, L.P. & CALMORIN, M.A. (2012). "Research Methods and Thesis Writing". REX Bookstore, Sampaloc, Manila.
- [3] CORPUZ, BRENDA & LUCIDO, PAZ. (2008). "Educational Technology 1", Lorimar Publishing, 2nd ed. Quezon City.
- [4] KUMAR, R. (2014). "Research Methodology: A step by step guide for beginners", SAGE Publications (4th Ed) India.
- [5] KUBINSKI, TOM. (2007). "Educational Testing and Measurement", Wiley and Sons. K-12 USA.
- [6] SANTOS, ELSIE K. (1999) "Technology and Home Economics IP". Diwa Learning Systems, Quezon City.
- [7] Department of Education Curriculum Guide (2010).
- [8] DEPARTMENT OF EDUCATION (2015). Edukasyon sa Pagpapakatao 1st Edition Module. FEP Printing Corporation, Pasig City, Philippines.
- [9] ALA, LIEZEL R. (2019) Development and Validation of a Worktext in English for Academic and Professional Purposes, Pangasinan State University, Lingayen, Pangasinan. May 2019.
- [10] ASUNCION, FILIPINAS. (2017), "21st Century Skills of Edukasyon sa Pagpapakatao Teachers under the Special Science Program in Pangasinan", Unpublished Masteral Thesis, Pangasinan State University-Open University Systems, Lingayen, Pangasinan. May 2017.
- [11] PACRIS, ANGELICA. (2019). "Development and Validation of Worktext in Practical Research 1" Unpublished Masteral Thesis, Pangasinan State University-Open University Systems, Lingayen, Pangasinan. May 2019.
- [12] AGUILAR, LEON. (2017). "How can Values Education Classes help Filipino Values." Pressreader.
- [13] DE JULIO, JENNIFER. (2014). "DepEd Values Education Program. Slideshare.
- [14] DEL CASTILLO, FIDES (2013). "Teaching Values using creative teaching strategies: An Asian Perspective and Exploration (Doctoral dissertation).
- [15] FELIPE, RUVIROSA. (2013). "Importance of Teaching Values Education among children"
- [16] KATILMIS, AHMET. (2017) Values Education as Perceived by Social Studies Teachers in Objectives and Practice Dimensions, Educational Sciences: Theory & Practice.
- [17] COOPER, CARY, DEWE, PHILIP, & O' DRISCOLL, MICHAEL. (2001). "Organizational Stress: A Review and Critique of Theory, Research, and Applications". SAGE Journal
- [18] ALI, RIASAT. (2015). "Development and Effectiveness of modular teaching in biology at secondary level"
- [19] BAUTISTA, ROMERO G (2012). "The Effects of Personalized instruction on the academic achievement of students in physics" Shepherds Friendly.
- [20] CABRERA, FREDDIE (2017). "Modular Cooperative learning: a designed mathematics instruction for 21st century education" UNP Research Journal 2017.
- [21] MCGRAW-HILL. "The Science of Psychology: An Appreciative View". McGraw Hill Companies. Boston. 2009.

- [22] STARR, MICHELLE, M. (2018, August 7). "Angry, short-tempered people are probably wrong about how smart they are, study finds." ScienceAlert.
- [23] CHOO MEI CHENG. ET AL. (2012). "The impact of using modules in the teaching and learning in malaysian polytechnics: an analysis of the views and perceptions of english language lecturers."
- [24] University of Michigan. (2019). Ten things you can do for your mental health. Retrieved from <https://www.uhs.umich.edu/tenthings>
- [25] NARDO, MA. THERESA BRINGAS (2017). Modular Enhances Learner Autonomy. American Journal of Educational Research.
- [26] HALBESLEBEN, JONATHON, & BUCKLEY, RONALD. (2004, December 1). Burnout in organizational life - SAGE Journals.
- [27] FULLAN, MICHAEL. "All Systems Go: The Change Imperative for Whole System Reform". Corwin Press. 2010
- [28] BAQUTAYAN, SHADIYA MOHAMED SALEH (2015). "Stress and Coping Mechanisms: A Historical Overview". Mediterranean Journal of Social Sciences, Vol. 6, No. 2, pp. 479-487.
- [29] HENDERSON, ANNE, & MAPP, KAREN. (2002). Report - The positive relationship between family involvement and student success. National Parent Teacher Association | National PTA
- [30] PUTMAN, LINDSAY. M. (2014). "Effective Technology Integration in Module-Based Curriculum." A Master's Thesis Capstone Project.
- [31] ALLISON, DONALD GRANT, "An Investigation of Administrative Stress and Coping in the British Columbia, Elementary and Secondary Public School Principals", The University of British Columbia, July 1995.
- [32] AKMAN, TERRI. (2016, April 27). "Younger school principals mean less experience, but more idealism and social and digital skills."
- [33] CAROLINO, C. J., & QUERODA, P. (2018). Instructional Strategies and Materials Utilized in Teaching Viewing as Macro-Skill by English Teachers. PSU Multidisciplinary Research Journal, 1(1). Retrieved from <https://www.psurj.org/online/index.php/mrj/article/view/113>
- [34] REYES, J., & QUERODA, P. (2018). Integration of Moral Story Reading Sessions as an Intervention to Bullying and Reading Comprehension. PSU Multidisciplinary Research Journal, 1(1). Retrieved from <https://psurj.org/online/index.php/mrj/article/view/114>