

Level of Competency of the Pupils in Technology and Livelihood Education 6 in Sorsogon City Division

Jennelyn Aguirre Areza

Abstract: *The study aimed to determine the level of competency of the pupils in Technology and Livelihood Education (TLE)6 in Sorsogon City Division for school year 2018-2019. It used the descriptive-survey method since a questionnaire was devised in gathering the primary data as reflected in the problem. The documentary analysis was also adopted for the grades of the pupils in the different areas. The respondents were the 23 TLE teachers and 246 learners of the City Division of Sorsogon which were randomly selected using the Slovin's formula. The statistical tools utilized were frequency, percentage, and ranking. The Chi square (χ^2) test was used for the relationship between the two variables. This study revealed that majority of the Technology and Livelihood Education (TLE) teachers most commonly used the demonstration method and cooperative learning as their activities and strategies utilized in teaching the subject areas. Then, almost one-third of the pupils have very satisfactory competence in Industrial Arts and Information and Communication Technology. However, the level of competency of the pupils in Technology and Livelihood Education is not affected by the activities and strategies utilized by the teachers. The most usual problems encountered by the TLE teachers are the inadequate instructional materials and computer units intended for use in the subjects. It was recommended that the teachers may engage in more professional developing activities, such as attendance to seminars and acquiring additional national certificates through training. Also, the school administrators may regularly assess the needs of their classrooms and laboratories and find ways and means to provide those needs. More so, school administrators may establish linkage with funding and research institutions and agencies. Meanwhile, the school may equip the TLE program with the appropriate and adequate facilities to come up with the expectations of the Department of Education. The utilization of multimedia instructional materials may be activated; the necessary and functional multimedia resources may be provided and made adequately by the school administration. Further study may be conducted in other schools and to include other variables not covered in this study.*

Keywords: level of competency

1. Introduction

Education is an essential as the existence of mankind .It is the best product ever made of one's quest for knowledge. Through Education, knowledge, and skills are developed. Desirable values, and attitudes are acquired to uplift moral conduct and enhance the personal attributes of an individual. Education is the most efficient system of equipping people with knowledge, skills and attitudes essential for effective membership in society. It consists of general and specialized educations which are acquired through formal, non-formal or informal schemes. A major sub-system of education dealing with the technological aspects of the environment is technology education. In its general form, technology education seeks to help people become technology literate and equips with the basic skills, knowledge and understanding of the scope, materials, equipment. Processes, products, problems and developments in the world of works.

Teaching Technology and Livelihood Education requires various knowledge and skill competencies to prepare the students for the better life. Teachers in this field are expected to have integrated information in teaching the subjects and its content. This requires competence both in subjects matter and skills.

Teaching is an intricate process for transcends from the classroom to the real life situation (Palmer, 1997). It is not just a matter of explaining the concepts and terminologies academically but also allowing the students to experience to themselves concretely the things being taught. These Educational ideals parallel to the prime objective of Technology and Livelihood Education. TLE targets to

develop analytical thinking, self-reliance, independence, culture understanding and entrepreneurship in the students (DepEd, 2019). It is done by enriching their skills, talents and abilities on the different uses of technology and application of life skills. With this purpose, it is a challenge for TLE teachers to apply teaching methods/strategies that can effectively and efficiently attain its aim. There are prescribed method of teaching that promote student-centeredness. These are differentiated instruction, expeditionary learning, personalized learning and game-based learning.

The Department of Education in South Africa (1998) in its competency framework identifies and defines the competencies needed for professional and business classes. The professional and business competencies needed are communication, personal management, interpersonal, leadership, organizational, management, and stakeholder skills. It went further to hierarchically define competencies in three levels: basic, intermediate, and accomplished. The basic level of competency require the incumbent to know general terms, concepts, processes and objectively of the competency and to be able to apply the competency common tasks. An Intermediate level of competency requires the incumbent to be able to apply the competency consistently to perform common tasks. An accomplished level of competency requires the incumbent to be able to use the competency consistently to perform complex tasks requiring creativity and judgement.

Generally, competence of a learner is determines in terms of knowledge, skills and values in a specialized context (Department of Education in South Africa 1998). This can

be achieved using authentic assessment tasks that resemble skills, activities and functions in the real world and in school. Assessment then becomes a learning experience in which learners are prepared to apply their knowledge, skills and values in an integrated manner. Assessment of knowledge, values, and skills relates to assessing elements in the cognitive, affective and psychomotor learning domain. The taxonomic of Bloom (cognitive domain), Knothwohl (affective domain, and Harrow (psychomotor domain) remain invaluable framework for assessing acquired knowledge, skills, and values (Vander Horst and Mac Donald 1997).

In the Philippine setting, with the K to 12 curriculum, the 21st century skills needed by holistically developed Filipino are the information, Media and Technology skill, thus the use of ICT in teaching and learning process plays a vital role in developing these lifelong skills needed by the learners as they go out of the school and face the reality of workplace. Therefore, the effective integration of ICT is a general prerequisite and must be carefully undertaken by the teachers to guide the learners in attaining or developing these skills. The vision of the Department of Education for ICT in education is 21st Century Education for All Filipinos, Anytime, Anywhere. This means an ICT-enabled education system must transform students into dynamic life-long learners and value-centered, productive, and responsible citizens as indicated in the DepEd ICT4E.Strategic Plan.

Integrating ICT in teaching and learning process at present remains a challenging task on the part of teachers due to some reasons like: the ratio of student-computer a teacher-computer, lack of trainings in integrating ICT, lack of confidence and competence in ICT, lack of technical support and lack of accessibility to ICT resources. All throughout the years, the Department of Education in the Division of Camarines Sur is becoming more responsive to the rapid technological advancement and changes in ICT that is evident in the study of NACARIO. It studied the readiness and accountability of ICT integration in basic curriculum and its revealed that the initial ICT integration in teaching particularly in Science, Math, English and TLE is an indicator of faculty and students' readiness and acceptance of ICT in some schools of Camarines Sur.

Teaching in the elementary can be challenging task for teachers as it greatly demands the strong competencies to be able to develop the knowledge and skills of the pupils indicated in the curriculum. The improvement is mandated under the Republic Act 10533 otherwise known as the Enhance Basic Education Act which stipulates that the program should meet the demand for quality teacher and school leaders. In response to this mandate, the curriculum for Technology and Livelihood Education (TLE) in the elementary was enhance in terms of specific skills and knowledge that the elementary pupils must develop in or to meet the requirements for further learning. The subject being taught in Grade 6 encompasses the field of ICT and Entrepreneurship, Agriculture, Home Economics, and Industrial Arts. It is geared towards the development of technological proficiency and is anchored on knowledge and information, entrepreneurial concepts, process and delivery, work and values. Based on the researchers observation. TLE

is taught in the Division of Sorsogon City, Bacon District by elementary teachers who are generalist. These teachers may have the limited opportunity to undergo skills training by their respective schools due to insufficient MOOE.

2. Statement of the Problem

This study determined the level of competency of the pupils in Technology and Livelihood Education 6 in Sorsogon City Division school year 2018-2019. Specifically, it answered the following questions:

- 1) What are the activities and strategies utilized by the TLE teachers along:
 - a) Home Economics
 - b) Agriculture
 - c) Industrial Arts
 - d) Information and Communication Technology
- 2) What is the level of competency of the pupils along the identified areas?
- 3) Is there any significant relationship between the activities and strategies utilized by the teachers and level of competency of the pupils along the identified areas?
- 4) What are problems encountered by the teachers in the different areas?
- 5) What could be proposed as an output of the study?

3. Methodology

Research Design

This study determined the level of competency of the pupils in Technology and Livelihood Education 6 along the Home Economics, Agriculture, Industrial Arts and ICT in different schools in Sorsogon City Division, school year 2018-2019.

This descriptive survey method of research in which survey questionnaire and unstructured interview and documentary analysis was used. The respondent were the 246 learners and 23 TLE teachers in different schools in Sorsogon City Division. Total population was considered in identifying the teacher respondent since different schools TLE teacher are less in numbers on the other hand slovin's formula was used to get the learner respondents from the whole population of the identified schools. The data gathered were subjected to item analysis and interpretation with the use of appropriate statistical measures and tools.

The Sample

The number of respondents and its percentage are presented in Table 1. The main sources of the data gathered are 246 learners from different school together with their TLE teachers in Sorsogon City Division.

Table 1: The Respondents

District	Teachers		Pupils	
	f	%	f	%
Sorsogon East	4	17	22	9
Sorsogon West	8	35	130	53
Bacon East	6	26	63	26
Bacon West	5	22	31	12
Total	23	100	246	100

To get the represented sample from the total population of respondents, slovin's formula was used. satisfied random

sampling and proportional allocation were used to choose the possible respondents in each school.

The Instrument

In this study the questionnaire were prepared and utilized to gather the needed data/information. The first part was the activities and strategies utilized by the TLE teacher along home economics, agriculture, industrial arts and ICT. The second part was the problems encountered by the TLE teachers along identified variables.

The researchers asked the assistance of the adviser in drafting the questionnaire. Before it was administered for a dry run, the researcher sought the comments and suggestions of the panel of evaluators regarding the content of the instrument. After which, the researcher sent the request letter for the School Division Superintendent and it was signed on February 24, 2020 likewise to the Public School Supervisor. The dry run conducted on February 26, 2020 to some private teachers who were not respondent of the study. After the dry run, the questionnaire was prepared for its final administration of questionnaire was administered on February 27 until March 6, 2020 with the help of some teachers from the identified schools.

Upon the approval, the permission letter were attached to the questionnaire so that the respondents will be confident in answering the questionnaire. Before the distribution of questionnaire, the dry run was conducted to the non-respondent's teachers to improve the content. After the dry runsome errors were conducted and validated by the adviser and panel, and then final copy was produced for the dissemination. The retrieval of the questionnaire is on the next week of its distribution to the respondents.

Data Collecting Procedure

Permission was sought by the researcher from the Principal of different district school to allow the researcher to administer the questionnaire to the TLE teachers.

The researcher also requested permission from grade 6 TLE teachers to get a summary grades of the pupils in four components areas in TLE subject. Proper instruction were given by the researcher in answering the questionnaire. The respondents were given almost one week to submit the questionnaire and the data of the pupils requested by the researcher. This was done on February 26- March 8, 2020.

Retrieval of the questionnaire was done on March 8, 2020.

After retrieval of the questionnaire, the researcher proceeded with the processing of data. There were then tallied, analyzed and interpreted with the help of a statistician.

Data Analysis Procedures

The data gathered were organized, analyzed, tabulated and interpreted by the use of the appropriate statistical tools and measures.

The formula that was used to determine the level of competence of the grade 6 pupils in four components areas in TLE: number of scores/total number of items x 100 in measuring the level of competence of pupils. The researcher

adapted the assessment used in the new K to 12 Basic Education Program the standard –based and competency used grading system under DepEd Order No. 8, s. 2015 and based on the Form 138 of the DepEd to interpret the competency level.

Grading Scale	Description
90-100	Outstanding
85-89	Very Satisfactory
84-80	Satisfactory
75-79	Fairly Satisfactory
Below 75	Did not meet expectations

The frequency count and rank were used to analyze and interpret the data gathered. Frequency count were used to determine level of competency of the pupils in TLE 6 along Home

Economics, Agriculture, Industrial Arts and ICT, using ranking was also used to determine the problems encountered by the pupils and identify the activities and strategies utilize by the TLE teachers along identified variable.

4. Results and Discussions

4.1 Findings

Based on the data collected, the following are the findings of the study: The activities and strategies utilized by 19 Home Economic teachers are lecture method, project method, and demonstration. Meanwhile, 15 teachers adopted the problem solving/inquiry method.

In relation to Agriculture, 22 teachers used the demonstration and cooperative learning. However, the innovative approaches and discovery method were utilized by 15 teachers.

Relative to Industrial Arts, the demonstration method (f=22), lecture/telling method (f=20), and printed instruction/textbook method (f=16) were the activities and strategies adopted by the teachers. On the other hand, the group discussion (f=23), think-pair share (f=21), and integrate digital technologies (f=18) were the activities and strategies utilized by the teachers in Information and Communication Technology.

- 1) The level of competency of the pupils in Home Economics and Agriculture is satisfactory with 79 (32%) learners and 78 (32%) learners, respectively, having grades of 80 to 88. Consequently, there are 81 (33%) pupils and 75 (30%) pupils who performed very satisfactorily in Industrial Arts and ICT, respectively, with grading scale of 85-89.
- 2) The activities and strategies utilized by the teachers and level of competency of the pupils in Home Economics are not significantly related because the χ^2 computed of 0.542 does not exceed the χ^2 critical value (df=28, $\alpha=0.05$). Similarly, there is no significant relationship between the activities and strategies used and level of competency of pupil in Industrial Arts since the χ^2 computed value of 15.593 is less than the χ^2 critical

value of 26.298 (df=16, $\alpha=0.05$). Moreover, the activities and strategies utilized by the teachers in improving the level of competency of the pupils in Agriculture and ICT are not significantly associated due to the fact that the χ^2 computed values of 3.533 and 2.265, respectively, are lower than the χ^2 critical value of 36.415 (df=24, $\alpha=0.05$).

- 3) The most common problem encountered by teachers in Home Economics is the instructional materials intended for the subject are inadequate (f=19). In Agriculture, the school equipment and tools are limited (f=15) is the most usual problem met by the teachers. However, there are 13 teachers who encountered that the resources for hands-on-task are inadequate in Industrial Arts whereas in ICT, the number of computer units are inadequate was met by 16 teachers.
- 4) An action plan may be proposed in order to improve the level of competency of the pupils in Technology and Livelihood Education.

4.2 Conclusions

Based on the findings of the study, the researcher arrived at the following conclusions:

- 1) Majority of the Technology and Livelihood Education (TLE) teachers most commonly used the demonstration method and cooperative learning as their activities and strategies utilized in teaching the subject areas.
- 2) Almost one-third of the pupils have very satisfactory competence in Industrial Arts and Information and Communication Technology.
- 3) The level of competency of the pupils in Technology and Livelihood Education is not affected by the activities and strategies utilized by the teachers.
- 4) The most usual problems encountered by the TLE teachers are the inadequate instructional materials and computer units intended for use in the subjects.
- 5) An action plan was designed in order to improve the level of competency of the pupils in Technology and Livelihood Education.

5. Recommendations

In the light of foregoing conclusions, the following recommendations were offered:

- 1) The teachers may engage in more professional developing activities, such as attendance to seminars and acquiring additional national certificates through training.
- 2) The school administrators may regularly assess the needs of their classrooms and laboratories and find ways and means to provide those needs.
- 3) School administrators may establish linkage with funding and research institutions and agencies.
- 4) The school may equip the TLE program with the appropriate and adequate facilities to come up with the expectations of the Department of Education.
- 5) The utilization of multimedia instructional materials may be activated; the necessary and functional multimedia resources may be provided and made adequately by the school administration.
- 6) Further study may be conducted in other schools and to include other variables not covered in this study.