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Original Article

Level of Motivations of Technology and Livelihood Education Students of State Universities Samar: Implications to Curriculum Development

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Abstract *- The study sought to determine the profile of the student respondents in terms of age, sex, family income, type of high school graduated from the course preference; to determine the profile of the teachers in terms of educational qualification, years in teaching Technology and Livelihood Education (TLE) subjects, number of relevant trainings/seminars acquired, and frequency national certifications acquired, and frequency of use of strategies in teaching TLE; to find out the level of motivations of the TLE students; to find out the level of attitude of the students towards TLE; to determine the performance of the students in TLE subjects; to determine whether there is a significant relationship between the profile of the teachers and students' motivations and attitude towards TLE subjects; to determine there is significant relationship between the motivation and attitude of the students; to determine whether there is a significant relationship between the profile of students and teachers and students' performance in TLE subjects; to determine whether there is significant relationship between motivations and attitude of the students and performance in TLE subjects; to determine whether there is a significant difference in motivations between student who had TLE as their choice and those who were influenced by other people; and to derive implications of the study to curriculum development.*

The study was conducted in four state universities in Samar Island offering a Technology and Livelihood Education course. It employed descriptive-correlational design. Complete enumeration of junior and senior BSEd-TLE, BSIE and BSHE students was employed. Complete enumeration was also done for the teacher respondents. Research instruments on motivations and attitudes were used as data-gathering tools. Secondary data such as the average of grades for the First Semester, SY 2015-2016 was also determined. Statistical tools include frequency counts, means, ranking, multiple regression analysis, and t-test for independent samples.

Most of the student respondents were in the 16-17 age range and P20,000–P30,000 income range. Majority of the student respondents were female, graduates of National High Schools, and influenced by other people to take up TLE.

Motivations and attitudes were significantly correlated. Age, family income, and type of high school graduated from had no significant relationship with performance while sex, school and course preference had significant relationship with the performance in TLE. However, the teachers' profile had no significant relationship on the performance in TLE.

Motivations and attitudes had no relationship with performance in TLE. Moreover, there was no significant difference in the motivation of students who chose personally TLE as their course and those who were influenced by other people.

Keywords *- Level of motivations, teaching strategies, technology and livelihood education*

I. INTRODUCTION

A. Problem and its Setting

As a subject both in the primary and secondary levels, the competency areas of Technology and Livelihood Education are Home Economics, Agriculture and Fishery Arts, Industrial Arts and Information and Communication Technology. In the tertiary level, Technology and Livelihood Education is one of the specializations offered in the Secondary Teacher Education curriculum. CHED Memo No. 20, s of 2004 spells out the curriculum requirement of Technology and Livelihood Education, which covers 60 units in Basic Drafting, Business Mathematics, Basic Electricity, Basic Plumbing, Cosmetology, Foods, carpentry and Masonry, Basic Electronics, and

Entrepreneurship. The schools are given authority to offer other specializations based on the resources and facilities to complete the rest of the 60 units (CHED Memo 30, s of 2004).

As a skill-oriented and a decision-making subject TLE is concerned primarily in strengthening and educating the individuals for family living. For some, it is a means of providing the students both academic and vocational training necessary to succeed in future careers. Others have considered earning the degree as a work opportunity or source of livelihood and entrepreneurship.

In the Philippines, however, a degree in Technology and Livelihood Education is considered a less priority course compared to other courses. Okocha, as cited by Azodo, (2014) established that although parents recognize the employment value inherent in technical related courses found in technical/vocational education, parents are still prepared to accept the superiority of socially prestigious and white-collar professions over technical related occupations. It is uncommon that high school students dreamt of pursuing a degree in this field. In fact in the University of Eastern Philippines, interviews of most students reveal that taking Bachelor of Science in Home Economics (BSHE). Or Bachelor of Science in Industrial Education (BSIE) is not considered their priority.

During enrolment period, BEEd and BSEd are top choices of students. After meeting the desired number of students for the said courses, students are hesitant to enroll in other courses like BSHE and BSIE. These observations among student entrants are common not only in the University of Eastern Philippines, but also in other state universities in the region and the country in general where Technology and Livelihood Education or Home Economics courses are offered. It is therefore not difficult to argue that most Technology and Livelihood Education students are not developed a not so favorable attitude towards their course.

This dilemma has repercussions in students' performance in Technology and Livelihood Education/Home Economics subjects and other academic outcomes. In fact, results in Licensure Examination for Teachers (LET) for the last five years showed that graduates of Home Economics in the University of Eastern Philippines (UEP) had the lowest average rating of 15 percent which is below the average national percentage of 33 percent.

Literature suggests that unmotivated students are generally unproductive and suffer decline in academic achievement (Analoui, 2010). The lack or absence of motivation also creates other negative behaviors such as procrastination poor study habits, and even negative attitude towards learning. This negative attitude towards learning. This negative attitude in turn guides students to underachieve academic goals.

According to Pekrun (2006) however, contextual factors have the potential to influence TLE students' thinking. Home and school environments could trigger different attitudes that may affect student's motivation and overall performance. These can interfere with several ways. These could also limit the student's capacity to balance these issues with schoolwork, creating problems specifically about schoolwork, and triggering researchers have therefore acknowledged the importance of contextual factors at home and school in the study of motivations in education. As Schutz (2010) claimed, motivations are intimately involved in virtually every aspect of the learning process and, therefore, an understanding of the nature of motivations within the school context is essential.

The concept of motivation is an important challenge to behaviorism, and has roots in White's (2009) competence or effectance motivation. Maslow (1943) and Alderfer (1969) addressed similar needs. In this study the focus is on the school motivations of the Technology and Livelihood Education/ Home Economics students. Together with attitude towards the subject, motivation's consequence will be measured according to the students' actual behavior in learning by determining their overall performance.

After psychologists introduced these motivation constructs, educational management scholars developed the importance of motivations – a hypothetical paradigm presumably residing within the person. Herzberg (2006) described tasks as intrinsically motivating when there are characterized by key motivators such as responsibility, challenge, achievement, variety, and advancement opportunity while extrinsically motivating tasks are those driven by externally administered rewards such as material possessions and stature. On the other hand, student attitude towards learning is another issue that is argued to predict academic outcomes. The process which made the students forcibly chose Technology and Livelihood Education or Home Economics course could have driven them to develop negative attitude towards learning. It is from these foregoing statements that the author conceptualizes that student motivations and attitude predict their performance. The discussions on the interrelationship of this motivations, attitudes and performance will be significant outputs in deriving implications for curricular development in TLE.

II. OBJECTIVES OF THE STUDY

Generally, this study investigated the motivations and attitudes if Technology and Livelihood Education students in Samar Island, and how they were related to performance in TLE subjects in order to draw implications for curricular development.

Specifically, this study sought to meet the following objectives:

1. Determine the profile of the respondents in terms of:
    a. age
    b. sex
    c. family income
    d. type of high school graduated from
    e, course preference
2. Determine the profile of the teachers in terms of the teachers in terms of:
    a. educational qualification
    b. years in teaching TLE subjects,
    c. number of relevant trainings/seminars attended
    d. number if relevant national certifications acquired
    e. frequency of use of strategies in teaching TLE
3. Find out the level of motivations of the TLE students.
4. Determine whether there is a significant relationship between the profile for the students and teachers and students' performance in TLE subjects.
5. Determine whether there is a significant relationship between motivations and attitude of the students and performance in TLE subjects.
6. Determine whether there is a significant difference in motivations between students who had TLE as their choice and those who were influenced by other people.

III. METHODOLOGY

Samar is an island in the Eastern Visayas, within the central Philippines. The island is divided into three provinces: Samar province, Northern Samar province and Eastern Samar province. These three provinces, along with the provinces on the nearby islands of Leyte and Biliran comprise the Eastern Visayas region.

Samar is the easternmost island in the Visayas. The island is separated from Leyte by the San Juanico Strait, which at its narrowest point is only about two kilometers across. This strait is crossed by the San Juanico Bridge. Samar lies southeast of the Bicol Peninsula on Luzon, the country's largest island; the San Bernardino Strait separates the two. To the south of Samar is the Leyte Gulf, the site of the Battle of Leyte Gulf, one of the most decisive naval battles during the Second World War. The gulf opens out into the Philippine Sea, found to the East of Samar and is part of the Pacific Ocean.

This study was conducted in the four state universities in Samar Island. Specifically, these state universities are Eastern Samar State University in Borongan Eastern Samar (ESSU), Northwest Samar State University (NwSSU) in San Jorge Calbayog City, Samar State University (SSU) in Catbalogan Samar and the University of Eastern Philippines (UEP) Catarman Northern Samar. Each university has satellite campuses in other localities hosting other degree programs as in the case of the Northwest State University (NwSSU) in which their BSEd-TLE Program is located at San Jorge Calbayog City. Eastern Samar State University (ESSU) Maydolong Campus is located at Maydolong E. Samar and Salcedo Campus is located at Salcedo E. Samar. Similarly, UEP has two satellite campuses located in the municipalities of Laoang and Catubig in the second district of the province.

All these SUCs offer Bachelor of Secondary Education major in TLE except the University of Eastern Philippines which has a separate but similar programs, the Bachelor of Science in Home Economics (BSHE) and Bachelor of Science in Industrial Education (BSIE)

The descriptive-correlational research design was used in this study. Specifically, descriptive part determined the motivations, attitudes, and performance of technology and Livelihood Education students in State Universities in Samar Island. The study generally analyzed the motivations and attitudes of Technology and Livelihood Education students and determine if these factors affect their performance in Technology and Livelihood Education subjects.

Two types of respondents were involved in this study. The third and fourth year BSED-TLE, BSIE and Home Economics students enrolled the first semester SY 2015-2016. Also the BSED-TLE and Home Economics teachers holding regular positions in the state universities in Samar Island this school year 2015-2016.

This study used a research questionnaire on students/ profile and teacher's profile, students' motivation, and students' attitudes towards Technology and Livelihood Education.

Students' Motivation. The 30-item instrument features motivations of HE/TLE students to do school task or achieve better grades, patterned from the study of Corpuz (2009) about junior and senior students' motivations in studying Technology and Livelihood Education subjects in the city of Batangas. Responses on the instrument were measured through a 5-point Likert-type scale.

Technology and Livelihood Education Performance. This was taken from the computed average for the TLE subjects only for the first semester of school year 2015-2016.

Although the instruments were modified from the study of Corpuz on motivations of junior and senior high school students and attitudes, this was subjected to validation process by securing suggestions from faculty members who are teaching Home Economics in the University. For students' motivation scale, items were revised because the questionnaires used were not related to the study and to suit to the TLE students respondents. Similarly, the instrument on attitude towards Technology and Livelihood Education was validated by showing each item to the same group of fellow teachers of the respondent as to its acceptability to the students. Recommendations by the teachers were also considered in coming up with the final instrument. Finally, the questionnaires used in the study were ore-tested in Eastern Visayas State University (EVSU) in the city of Tacloban, Leyte.

To facilitate presentation of findings as well as statistical analyses, all data gathered were scored and interpreted as follows.

Students' Profile

The age of student-respondents was categorized using the following ranges and coded for statistical analysis.

14-15	1
16-17	2
18-19	3
20 up	4

The sex of student-respondents was categorized and coded as follows:

Male	1
Female	2

The monthly family income of student-respondents was categorized and coded as follows:

Less than 10,000	1
10,001 to 20,000	2
20,001 to 30,000	3
More than 30,000	4

The type of secondary school where student-respondents graduated from was categorized and coded as follows:

Tech/Voc School	1
National High Schools	2
Private High Schools	3

The course preference was categorized and coded as follows:

Personal Preference	1
Choice of other People	2

Teachers' Profile

The Educational attainment of the teacher-respondents was categorized and coded as follows:

BS Graduate	1
Diploma	2
MA Graduate	3
PhD graduate	4

The number of years spent in teaching TLE was categorized and coded as follows:

Less than 5 years	1
5 to less than 10 years	2
10 years to less than 15	3
15 years above	4

The number of trainings and national certificates was counted and served as the actual number presented in the tables

Student Motivations.

Responses in the instrument were scored using the scale below. Weighted means of the responses on motivation were interpreted as indicated:

Responses	Score	WM Range	Interpretation
Strongly Agree	5	4.20-5.00	Very High
Agree	4	3.40-4.19	High
Undecided	3	2.60-3.39	Moderate
Disagree	2	1.80-2.59	Low
Strongly Disagree	1	1.00-1.79	Very Low

Attitudes towards Technology and Livelihood Education.

Responses in the instrument for positively-keyed items were scored using the scale below. For the negatively keyed items, scoring was reversed. Weighted means were categorized as follows:

Response	**Score**	**WM Range**	**Interpretation**
Strongly Agree	5	4.20-5.00	Highly favorable
Agree	4	3.40-4.19	Favorable
Undecided	3	2.60-3.39	Moderate
Disagree	2	1.80-2.59	Unfavorable
Strongly Disagree	1	1.00-1.79	Highly Favorable

Technology and Livelihood Education Performance.

The average grade of each student-respondent in TLE subjects reflected in the registrar's office during the school year 2015-2016 were considered in this study. Because of the variation of the grading systems, the researcher came up with a common set of five categories of grades as follows:

1.00 – 1.40	Excellent
1.41 – 1.80	Very good
1.81 – 2.20	Good
2.21 – 2.60	Fair
2.61 – 3.00	Poor

The data for this study were personally gathered by the researcher. First, permission was asked from each of the presidents to conduct study in their university and to

field questionnaires in the college/s covered in the study. The grades for the 1st semester of current school year of the students were taken from the Office of the Registrar. The names of the teacher-respondents were listed. Informal interview with the teacher-respondents was conducted after the respondents were given the set of questionnaires to accomplish.

After the data were gathered, the researcher analyzed the data using appropriate statistical tools.
In the processing of the data the following statistical treatments were employed:

Descriptive statistics was used to present the nature of the variables involved. Arithmetic mean, frequency counts, and percentages were used to present the profile of the student and teacher-respondents.

Multiple Regression (MR) analysis was utilized to test relationship between the motivations, attitudes and HE/TLE performance. The same statistical procedure was employed to determine how the profile of students and teachers affect academic performance. T-test was employed for the test for significant difference of the motivation of students who had TLE as personal choice and those who were influenced by other people.
A 0.05 margin of error was assumed in hypotheses testing.

IV. PRESENTATION, ANALYSIS, AND INTERPRETATION OF DATA

Profile of the Student Respondents

Age. In terms of age, 200 or 44.84 percent of the respondents were in the 16-17 range of ages; 148 or 33.18 percent was in the 18-19 range of age, while only 98 or 21.98 percent of the respondents had ages of 20 above.

Sex, In terms of sex, 284 or 63.68 percent were female and only 162 or 36.3 percent were males. This indicates that majority of the student respondents were females.

Family Income. Regarding the family income of the student respondents, 196 or 43.95 percent had income ranging from 20,000 to 30,000 followed by 115 or 25.78 percent whose income ranged from 20,000-20,000 and 74 or 16.59 percent whose income ranged from 30,000 to 40,000. However, only 18 or 4.04 percent belonged to the income earners of more than P40,000.

Type of High School Graduated From. Out of 446 students, 259 or 58.1 percent were graduates of national high schools, while 165 or 37.0 percent were products of Technical Vocational High Schools. However, 22 or 4.9 percent were graduates of private schools. There were more students who took TLE courses who are graduates of national high schools.

Course Preference. The table also shows that only 40 or 8.97 percent had TLE as their "own" choice. Majority of the student respondents were influenced to enroll TLE by "others" with 355 or 79.60 percent; there were 46 or 10.31 percent who were influenced by "friends" in enrolling TLE course; and 38 or 8.52 who were influenced by their parents to enroll TLE. However, there were 3.0 or 0.67 percent who were only influenced by their "relatives and neighbors" in enrolling TLE course, this indicates that majority of the student respondents were only influenced by others in enrolling TLE course. This further means that the TLE courses were not the personal choices of the respondents.

Age	**Frequency**	**Percent**
16-17	200	44.84
18-19	148	33.18
20 and older	98	21.98
Total	446	100.00
Sex	**Frequency**	**Percentage**
Male	162	36.32
Female	284	63.68
Total	446	100.00
Family Income	**Frequency**	**Percentage**
More than 40,000	18	4.04
P30,001 to P40,000	74	16.59
P20,000 to P30,000	196	43.95
P10,000 to P20,000	115	25.78
P10,000 or less	43	9.64
Total	446	100.00
Type of High School Graduated From	**Frequency**	**Percentage**
Technical Vocational High School	165	37.00
National High School	259	58.07
Private High School	22	4.93
Total	446	100.00
Course Preference	**Frequency**	**Percentage**
Own Choice	40	8.97
Parents	38	8.52
Friends	46	10.31
Relatives	3	0.67
Neighbors	3	0.67
Grandparents	1	0.22
Others	355	79.60
Total	446	100.00

Profile of Teacher Respondents

Regarding the educational qualification of teacher respondents, 2 or 11.76 percent, were BS graduates related to Technology and Livelihood Education, 12 or 70.5 percent were Masteral degree holders in Home Economics, Vocational Educational and Industrial

Education. However there were two (2) faculty members who are graduates of masteral degree in Curriculum and Instruction and Administration and Supervision. Likewise, there were 2 or 11.76 percent who were Doctoral degree holders in Educational Management and 1 or 5.88 percent earned Diploma in Crop Science. This indicates that majority have at least the basic requisite of teaching in college which is Masters along the discipline they are teaching.

Number of relevant training/seminars attended		
0	6	35.34
1	6	35.34
2	2	11.76
3	2	11.76
4	1	5.80
Total	**17**	**100.00**
Relevant national certifications acquired		
0	7	41.2
1	5	29.4
2	2	11.8
3	2	11.8
5	1	5.8
Total	17	100.00

Years in Teaching TLE Subject. In terms of number of years in teaching TLE subject, 10 or 58.8 percent had 15 years and more teaching experience in teaching TLE, while 2 or 11.76 percent had less than 5 and less than 10 years' experience respectively. The data showed that majority of the teachers were more experienced in teaching Technology and Livelihood Education subjects in terms of number of years.

Number of Relevant Trainings/Seminars Attended. Out of 17 respondents, 8 or 47.1 percent indicated that they did not attend any training or seminar while 9 or 52.9 percent have attended. It can be implied that majority of the respondents attended. It can be implied that majority of the respondents attended trainings and seminars related to TLE. This is supported by Rahim's study which indicated that acquiring better trainings enable the teachers to design effective macro level strategies and techniques to enhance quality teaching.

Number of Relevant National Certifications Acquired. Out of 17 respondents, 7 or 41.2 percent had no certification acquired, while 5 or 29.4 percent had 1 relevant certification only; 1 or 5.8 percent had acquired a relevant national certification. This implies that teachers teaching Technology and Livelihood Education should acquire as much as many National Certifications to be more competent in teaching the subjects.

Profile	**Frequency**	**Percentages**
Educational Qualification		
BS Graduate	2	11.76
Diploma in Crop Science	1	5.88
MA Graduate	12	82.46
PhD Graduate	2	11.76
Total	17	100.00
Years in teaching TLE subjects		
Less than 5 years	2	11.76
5 to less than 10 years	2	5.88
10 years to less than 15	3	82.46
15 years above	10	11.76
Total		100.00

Frequency of Use of Strategies of Teacher-Respondents. Table 2b shows the strategies used by the teacher in teaching Technology and Livelihood Education subjects. The data revealed that teachers "always" applied laboratory method in teaching the subjects with a mean of 4.83; followed by lecture/discussion of 4.69 mean. Demonstration and Project methods are "always" used by the teachers with a mean of 4.50 and 4.27, respectively.

However, on simulation, the data revealed that it was only "sometimes" used by the teachers with a mean of 3.15 and role play with a mean 2.7 respectively. On the other hand, computer-aided instruction was "seldom" used by the teachers with a mean of 2.27; followed with Research/case study method with a mean of 2.25. In like manner, Field trip was "never" used with a mean of 1.67 and Modular approach with a mean of 1.38. Other strategies identified by the teacher respondents such as problem solving, group dynamics and individual/group reports.

It can be noted that teachers employ more frequently the strategies which are most appropriate in teaching TLE, laboratory method and demonstration method since TLE is a skill subject. Lecture/discussion is always used since laboratory and demonstration usually starts with lectures/discussion on the theories.

Table 2b. Frequency of Use of Strategies of Teacher Respondents

Strategies used by teachers	**Mean**	**Interpretation**
Laboratory method	4.83	Always
Lecture/Discussion	4.69	Always
Demonstration method	4.50	Always
Brainstorming	4.46	Always
Project	4.27	Always
Simulation	3.15	Sometimes
Role play	2.70	Sometimes
Computer-aided instruction	2.27	Seldom
Research/Case study	2.25	Seldom

Field Trip/Study	1.67	Never
Modular	1.38	Never

Level of Motivation of the TLE students

Table 3a presents the distribution of respondents by level of motivation. It shows that 18 or 4.04 had "very high motivation", 331 or 74.22 had "high motivation", 95 or 21.30 had "moderate motivation", while only 2 or 0.44 percent had "low motivation". No respondent had "very low motivation". This indicates that majority are motivated enough to learn TLE as their field of specialization.

Table 3b presents the findings of the student motivation towards Technology and Livelihood Education. It can be gleaned that TLE students had a high level of motivation as manifested by the grand mean of 3.64.

The items were grouped into four categories: motivation as improving family situations, personal achievement/satisfaction, life skills application, and enhancement of skills in particular field. All groups had means interpreted as "high motivation" this means that the respondents' motivation is generally high regardless of the categorization of the reasons for motivation.

For improving family situations, the highest mean is on "know and better understand the importance of a family". This means that the respondents fully know the application of the things learned in TLE in family life. In personal achievement/satisfaction, the highest mean is on "TLE being an enjoyable activity". This means that the students derive enjoyment in doing activities related to TLE. In life skills application, the highest mean is on "enable to deal with day to day problems." The respondents recognized the importance of TLE as applied to the daily life decision making. In enhancement of skills in a particular field, the highest mean was on "enable me to know the steps on making handicraft items for sale". This shows that respondents recognized that the products of TLE activities could be a potential source of income.

The findings contradicted the findings of Corpuz (2009) that most of the Technology and Livelihood Education students had low school motivations.

Table 3a. Respondents by Level of Motivation

Level of Motivation	**Frequency**	**Percentages**
Very High	18	4.04
High	331	74.22
Moderate	95	21.30
Low	2	0.44
Total	446	100.0

Statement	**Mean**	**Interpretation**
Improving Family Situations		
Studying TLE is important to me because I would like to know and better understand the importance of a family.	4.09	High
Studying TLE is important to me because my parents give priority to courses which have greater chances for employment.	3.99	High
Studying TLE is important to me because I can find a job sooner .and be independent from my parents.	3.92	High
Studying TLE can be important for me because it makes my parents proud of me.	3.75	High
Studying TLE can be important for me because I may need it later in preparation for parenthood.	3.63	High
Studying TLE is important to me because without it one cannot be successful in raising a family.	3.62	High
Studying TLE is important to me because an educated person is expected to be able to prepare good food for his/her family.	3.49	High
Sub-Mean	**3.78**	**High**

Personal Achievement/Satisfaction		
Studying TLE is enjoyable, the same as reading TLE books and magazines.	3.70	High
Studying TLE is important to me because it provides an interesting intellectual activity.	3.64	High
Studying TLE is important to me because it offers a new challenge in my life.	3.63	High
Studying TLE can be important to me because food preparation and management often gives me a feeling of success.	3.57	High
Studying TLE can be important to me because it is worth the cost.	3.55	High
Sub-Mean	**3.62**	**High**

Life Skills Application		
Studying TLE can be important to me to deal with day to day problems.	3.91	High
Studying TLE can be important to me because it will enable me to know and develop myself in making researches on the different areas in TLE	3.78	High
Studying TLE can be important for me because I will need it in my daily life.	3.68	High
Studying TLE can be important to me because I will learn more	3.61	High

practical electricity applicable to households.		
Studying TLE can be important to me because it will enable me gain knowledge in putting up a grocery store.	3.57	High
Sub-Mean	**3.71**	**High**
Achievement of Skills in Particular Fields		
Studying TLE is important to me because it will enable me to know the steps on making handicraft items for sale.	3.63	High
Studying TLE can be important to me because I would like to know more about entrepreneurial activity.	3.60	High
Studying TLE is important to me because I would like to know ways of fish production.	3.57	High
Studying TLE is important to me because it will enable to me to get to know various tools and equipment needed in masonry, carpentry and plumbing.	3.50	High
Studying TLE is important to me because I will be able to know proper book keeping and simple accounting.	3.47	High
Studying TLE is important to me so that I can keep in touch with the latest trend in food preparations.	3.46	High
Studying TLE is important to me because it enables me to appreciate home care.	3.45	High
Studying TLE can be important to me so that I can broaden my knowledge on how to raise vegetables and root crops.	3.39	Moderate
Sub-Mean	**3.57**	**High**
Grand Mean	**3.64**	**High**

Relationship between the Profile of the Teachers and Students' Motivations and Attitude towards Technology and Livelihood Education subjects

Table 5a presents the relationship between the teachers' profile and students' motivation. The table shows that the number of relevant trainings (**a=.**964), relevant national certificates **(a**=.327), and strategies used in teaching TLE (**a=.**893) had significance values greater than .05. Thus, the null hypothesis that the profile of the teachers is not significantly related to motivations is accepted. There is no significant relationship between the teacher's profile and motivations of students. The educational qualification and length of teaching TLE were deleted in the analysis since these two variables had only one entry. This indicates that the motivation of students did not depend on the profile of the teachers. Motivation to learn TLE could be intrinsic, hence, the motivation of the students was not influenced by teachers' profiles.

Table 5a: Test of Relationship between the Profile of the Teachers and Students' Motivations towards TLE

Independent variables	Beta	Sig	Interpretation
Number of relevant trainings	.025	.964	Not significant
Relevant national certificates	-.070	.327	Not significant
Strategies used in teaching TLE	.073	.893	Not significant

Dependent variable: Motivations

Table 5b presents the relationship between the teachers' profile and students' attitudes. The table shows that the number of relevant trainings (**a=**.004), relevant national certificates (**a=.018),** and strategies used in teaching TLE (**a=**.013) had significance values less than .05. thus, the null hypothesis that the profile of the teachers is not significantly related to motivations is rejected. There is a significant relationship between the teacher's profile and attitudes of students. The educational qualification and length of teaching TLE were deleted in the analysis since these two variables had only one entry. This indicates that the attitudes of the students are influenced by the profile of the teachers. Attitudes can be influenced by environmental factors, hence, the significant relationship. The negative beta value with relevant national certificates and strategies used in teaching TLE could be interpreted as with the increase of the number of national certificates of teachers, they adopt stricter class policies which could in turn affect the attitude of the students, in as much as many will not entertain the idea of having a stricter teacher. The same is true with strategies are used in class, there could be more activity or outputs to be produced. This, in turn again, could affect students' attitudes.

Table 6: Relationship between Motivations and Attitude of the Students

	motivation	attitude
Pearson Correlation	1	.375**
Sig. (2-tailed)		.000
N	446	446
Pearson Correlation	.375**	1
Sig. (2-tailed)	.000	
N	446	446

Relationship between the Profile of the Students and Teachers and Students' Performance in TLE

The table shows that age **(a=.162),** family income **(a=**.983), and type of high school graduated from (**a**=.372) had significance values greater than .05. thus, the null hypothesis that the profile of the students is

significantly related to performance in TLE is accepted in terms of the three variables. There is no significant relationship between the students' profile and age, family income, and the type of high school graduated from. These three variables did not that significant relation with the performance in TLE of the students.

However, sex (**a=**.019), school (**a=.**021) and course preference
(**a=**.025) had significant relation with the significance in TLE. The null hypothesis that the profile of the students is not significantly related to performance in TLE is rejected in terms of the three variables. This indicates that since TLE encompasses skill subjects which could be difficult for females and easy for males, some subjects could be easily learned by a certain group of gender category. Wolleat, et al. (2011) stated that student achievement has been one of the most significant sex-related differences observed in late adolescent and adulthood. She said that males have been more visible than females in Technology and Livelihood Education-related activities.

The performance of the respondents was also linked to the school. Hence, performance could be influenced by the higher education institution. This means that the respondents of the different schools have different academic performances in TLE. This could also be sattributed to the focus of schools on some specialized areas of TLE.

Having TLE as a personal preference is indicative of a better performance in these subjects. If one learner chooses freely a certain thing, in this case, learning TLE as a course, the driving force which is motivation is already inherent. As mentioned in the previous section. This motivation could redound to the learner working towards better performance in his/her subjects.

Table 7a: Relationship between the Profile of the Students and Students' Performance in TLE

Independent Variable	**β**	**Sig**	**Interpretation**
Age	.065	.162	Not Significant
Sex	.112	.019	Significant
School	=.114	.021	Significant
Family income	-.001	.983	Not Significant
Type of high school graduated from	-.042	.372	Not Significant
Course preference	.106	.025	Significant

Dependent Variable: Performance in TLE

Table 7b shows that the number of training (a=.218), relevant national certificates (a=.324) and strategies used in teaching TLE (a=.356) had no significant bearing on the performance in TLE. The null hypothesis that there is no relationship between the teacher's profile and students' performance in TLE is accepted. The finding is in disagreement with Ofem, et al (2015) that the educational qualifications and experience of the teacher influence significantly the students' academic achievement in Home Economics.

Table 7b: Relationship between the profile of the Teachers and Students' Performance in TLE

Independent Variables	**β**	**Sig**	**Interpretation**
Number of relevant trainings	-.691	.218	Not Significant
Relevant national certificates	.069	.324	Not Significant
Strategies used in teaching TLE	.498	.356	Not Significant

Dependent variable: Performance in TLE

Relationship between Motivations and Attitude of the Students and Performance in TLE

Table 8 shows that motivations (a=.679) and attitude (a=.108) had significance values greater than .05. thus, the null hypothesis that there is no significant relationship between motivations and attitudes and the performance of students in TLE is accepted. Motivations and attitudes have no significant bearing on performance in TLE. This finding negated the finding of Corpuz (2009) that there was significant relationship school motivation and academic performance and the study of Kloosterman (2006) which showed that there is a significant positive relation of motivation in the performance of Technology and Livelihood Education subjects.

However, the same study interpreted that motivations contribute not that much on students' academic performance, citing other factors like school and family that could have affected the low performance of respondents. The finding affected the study of Azodo (2014) which found out that there is a positive relationship between students' attitude in technical skill acquisition and their performance.

Table 8: Test of Relationship between Motivations and Attitude of the Students and Performance in TLE

Independent Variables	**β**	Sig	Interpretation
Motivation	-.021	.679	Not Significant
Attitude	-.082	.108	Not Significant

Dependent Variable: Performance in TLE

Difference in Motivations between Students who had TLE as their Choice and those who were influenced by other people

Table 9 shows that with a significance value of 0.581 which is more than 0.05, the null hypothesis that there is no significant difference on the motivation of students who had TLE as their first choice and those who were influenced by other people is accepted. This means that both groups of respondents have similar motivations. This further indicates that the respondents had similar motivating factors in learning their TLE subjects.

This finding negates the study of Mullis, et al. (2010) that there was a significant gender difference in learning motivation.

Table 9: Test of Difference between Motivations of Students

	Means	t	sig	Interpretation
Students who has TLE as personal choice	**3.6102**	**-.533**	**.581**	**Not Significant**
Students who has TLE as choice of other people	**3.405**			

Implications for Curriculum Development

Curriculum development, as an integral part of the complex teaching-learning process is said to be dynamic. Changes in the curriculum are expected to be happening now and then. With these changes, the curriculum is bound to cater to the growing needs of the stakeholders, particularly the learners. Implications in curriculum development for Technology and Livelihood Education instruction which are spelled out in the succeeding text are presented in five themes – curriculum content, students, teachers, technology/facilities, and administrative support.

Content. An analysis of the checklists of the different schools show that all schools have complied with the CHED requirement on the different areas of TLE to be offered. However, other schools such as the Eastern Samar State University exceeded the CHED requirement. It was also noted that some of the TLE subjects had different credit units. The schools also differed in the additional subjects offered to comply with the 60-unit major subject requirement. Eastern Samar State University and Northwest Samar State University had more on Agriculture courses as add-on subjects while Samar State University had Industrial Arts as focus of the add-on subjects. In the University of Eastern Philippines, the add-on subjects focused on the Industrial Arts for the Bachelor of Science in Industrial Education program and focused more on Home Economics for the Bachelor of Science in Home Economics program.

It is noteworthy that only the University of Eastern Philippines is the only school without the Bachelor of Secondary Education major in Technology and Livelihood Education program compared to the other three schools. The University of Eastern Philippines also has a different grading system from the rest of the schools.

Only the Eastern Samar State University has TLE summer offerings due to the limited number of qualified teachers to handle the subjects during the regular semester. Only the Samar State University has an On-The-Job Training requirement of the TLE curriculum. Only the Eastern Samar State University offers the TLE subjects starting the second year curriculum, while the others start as early as the first semester of the freshman year.

The need to streamline the course offerings among educational institutions is a positive move to allow facility of student mobility if a subject would be transferring from one institution to another.

Students. A common observation in schools is that many students do not pursue TLE courses. Hence, there is a need to improve the process of admitting students in TLE courses in such a way that those who will be accommodated have the innate liking of TLE, which could be rooted in the performance if the results of the National Career Assessment Exam which presents the career preference of high school students can be initial inputs in the admission process. Institutions need to come up with innovative ways to attract students who are motivated enough to pursue TLE related courses.

Teachers. Teachers of Technology and Livelihood Education need to be adequately prepared to teach the subjects through engaging in professional development initiatives like attendance in relevant seminars and trainings which could provide them the National Certificate required for the to be qualified to teach subjects. As teachers could not affectively impart instruction if the teachers themselves lack the sufficient background knowledge, the Department of Education needs to share in quality assurance in high school TLE instruction by assigning TLE subjects to TLE specialists.

Technology/Facilities. It was learned in the interview with the teachers that the schools generally lack facilities related to the teaching of TLE. Tools are sometimes unavailable, hence, intended outcome is sometimes modified to suit to whatever is available. As

a result, once teacher said that due to lack of utensils and facilities, students and teachers are not motivated to learn more of the subjects. Another teacher mentioned about the lack of books and other references as a problem related to technology. Other teachers said that students are not exposed to sophisticated equipment, lack if equipment to satisfy the number of students, lack of standard laboratory rooms, and lack of maintenance of existing equipment.

Institutional Support. Teachers who were interviewed stated the lack of support of the administration in terms of provision of facilities and opportunities for teachers to attend seminars and trainings. Once teacher mentioned that TLE teachers are neglected by the administration.

The support of the administration of any higher education institution especially in the provision of adequate facilities is very crucial in the success of a program. Since TLE is a demonstration and laboratory subject which grounded on performance, the presence of adequate and functional facilities to aid in the delivery of TLE instruction is needed to ensure the success of the program.

V. RECOMMENDATIONS

In view of the findings, the following recommendations are forwarded:

1. Orientation and sufficient encouragement should be done by the schools to attract both males and females in the TLE course.
2. Faculty members should engage in more professional development activities, such as attendance to seminars and acquiring additional national certificates through training.
3. The institution should equip the TLE programs with the appropriate and adequate facilities to come up with the expectations of the CHED as embodied in memorandum orders on the TLE curriculum.
4. Institutions should come up with ways to motivate prospective college students to take up the TLE related courses. Specific ways include offering scholarships to prospective students.
5. It is also recommended that the University of Eastern Philippines align its grading system to other universities. This could facilitate computation of grades in case students transfer from other schools to the university.

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