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Development and Validation of Learning Modules in TLE Dressmaking

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ABSTRACT

Teaching effectiveness is a major concern in the educational system. This study was conducted to develop and validate learning modules in TLE Dressmaking for Grade 7 utilizing the descriptive-evaluative method of research. The construction of the modules involved the planning stage which examined the learning competencies, and the identification and selection of reference materials to be included in the modules; the development stage included the writing of objectives, concepts, skills, learning activities, and pretest and posttest of each of the learning modules. The validation stage involved the evaluation made by eight experts on the content and instructional characteristics of the modules. The use of sewing tools, carry out measurements and calculations, perform basic operations and maintenance, create design for a simple project, and practice occupational safety and health were learning competencies considered in the development of the learning modules. The content or quality of the topics, the kind of learning tasks given to the students, and the quality of strategies and techniques used in the learning modules were all rated excellent by the experts. It is highly recommended that the newly developed instructional materials be used in teaching TLE Dressmaking for Grade 7. School administrators should take steps in the academe for the construction and validation of learning modules in the system of education at all levels particularly in the different areas of TLE. More trainings and seminar-workshops should be given to teachers in the construction and validation of learning materials like modules.

Keywords: *design, clothing, construction, teaching, Instructional materials, vocational skills*

INTRODUCTION

Teaching effectiveness is a major concern in the educational system. Teachers should have a clear understanding of the nature of the learner's needs and capabilities. Through this, the teacher can devise ways and means to meet such concerns of development. Conceptualizing and planning the learning activity is one of the challenges in helping students to enhance their competencies. This requires the need to prepare and develop an appropriate teaching methodology to present the lesson to the students effectively (Reyes, 2003).

The K to 12 curriculum gave importance to Technology and Livelihood Education (TLE) subject during high school, with the learner even obtaining a certificate of competency required by industries. In Grade 7, TLE subjects are exploratory, which means that the learner is given the opportunity to learn five

basic competencies: 1) use of tools and equipment, 2) mensuration and calculation 3) maintenance of tools and equipment, 4) interpretation of plans/drawing, and 5) occupational health and safety in the workplace. On the other hand, the Grade 9 learners choose one course to specialize in from among the exploratory courses while in Grade 10, they obtain at least a National Certificate Level I or II (DEPED Curriculum Guide, 2012).

The unavailability of learning materials is just one of the problems still hounding the country's K-12 Program. Teachers then as the primary implementers of the K-12 program should devise appropriate instructional materials that would suffice the needs of the learners, thus, enabling them to acquire the essential skills that they need to have a meaningful and productive life.

One of the modern approaches suited to conventional teaching is individualized instruction and mastery learning through the use of the instructional module. Modules are essentially self-contained and self-instructional packaged that allow the learner to proceed in his/her studies by his/her capacities and abilities. A well-designed module can significantly contribute to the effectiveness of the teachers and can enhance student learning. Hence, this kind of instructional material induces learning with a minimal teacher lecture direction and supervision.

Through the use of modular instruction, the students can learn at their own pace while slow learners can master the lesson without trying to cope up the pace of the fast learners, and that the teacher would be freer from the routinary traditional method of teaching, hence he can devote more of his time to the needs of the students.

Quality education is viewed as a nation’s pillar of success. It means quality employment for a better life. The implementation of K-12 curriculum in the Philippines Basic Educational System is the key to a nation’s development. Though the government faces many problems in the long run of the implementation of the program, there is a need to implement it because the enhancement of the quality of education is very urgent and critical. Through the K-12 program, students will be able to get sufficient instructional time to do subject-related tasks which makes them more prepared and well-trained in that subject area. It is in this context that the researcher is interested to conduct a study on the development and validation of dressmaking modules in TLE 7. The researcher believes that the use of modules in teaching will facilitate the learning process. Hence it makes teaching more effective. Moreover, through the use of modules, the students would be helped to have a better grasp of the lesson presented to them.

The researcher, as one of the TLE teachers of the Laboratory Junior High School believes that the development of the modularized approach in teaching

can greatly contribute to the development of more creative and productive work among the students.

The findings of this study may be very useful in improving instruction and competencies of both teachers and students under the K-12 curriculum. The school administrators may also be provided baseline information in designing appropriate training for other TLE teachers in the development and validation of their own learning modules based on their respective areas of specialization that may contribute to the vocational-technical competency of high school students.

According to Estrañero (2001), module as an instructional material is defined as a simple, clear, independent and self-directed unit of instructions. It usually contains the general features: a general idea stating what is to be studied, specific skills to be achieved, a multi-varied approach to practice and learn different skills, enrichment activities and a series of test.

Rumpus (2003) also defined the module as a self-contained, independent unit of a planned series of learning of activities designed to help the student accomplish specific well-defined objectives.

Moreover, a module can be used individually or in small group-settings, suitable to the learner's own pace of work. It is designed on the patterns that make the learner able to identify the objectives he/she is going to achieve, select the appropriate content, follow a learning sequence of his/her own choice from a variety of methods of presentation and able to evaluate his/ her achievements.

Loughran and Berry (2005); Rumpus (2003) and Axman (2005) characterized module-based materials as follows:

> A module is a self-paced learning resource. It does not drive all the learners at the same rate, but allows them to think, reflect and adjust information by their own abilities and capacities. The level of intelligence, style of work and pattern of manipulating the things vary from man to man. It has been rightly pointed out by Loughran and Berry (2005) that telling is not teaching and listening is not learning. It is a two-way traffic that also needs a reaction from the other side. The pace and intensity of this reaction vary from individual to individual. It is one of the important features of module-based learning that fully respects the individual differences and brings the learning to the level learner.
>
> The module-based programme places the responsibility of learning on the students, which results in improved motivation for learning, and the development of self-concept about the personal world. It is fully oriented to student-centered teaching that respects the interests, background experiences and socio-economic status of the students sitting in the

classroom. It accommodates the unique abilities, goals, learning rates and learning styles of each student.

A module is a unit of curricular material, complete in itself, to which further units may be added for the achievements of larger tasks or long-term goals. It does not mean that a module is limited to the achievement of some skills but has the capacity for achieving long term, broadly based objectives of conceptual nature. It is also used in the study of all kinds of subjects.

It provides an opportunity for open learning and workshop system where the students and instructor arrange the meeting after their working hours. Peer group teaching can be utilized, and the slow learner is provided the chance to be facilitated by his classmates. It has room to accommodate a large number of students as well as small groups. The focus of the module is to achieve mastery learning, and the learning process is entirely based on the concept of mastery learning. The pattern of organization of instruction is neither on the prescribed amount of class time nor on the achievement of specific objectives but the overall competency of the student. It is the question how and when the competency occurs but to what extent it has been obtained. The challenge that is faced by the school is the promotion of all the students sitting in the classroom having different socio-economic background and intelligence (low, average, bright) by some certifiable standard. It is very difficult to set unified standard for all of the students and to develop all of them to the required level. In this respect, module based programme is more appropriate to meet this challenge.

Modules have their own built-in assessment of progress. They provide the student with immediate and continuing feedback. The deficiency on the part of the students has been made up through deficiency module that provides greater motivation to students.

The content that might be included in instructional units is in the shape of printed materials, e.g. books, essays, bibliographies, additional resource lists, charts, and graphs. Audiovisual materials, e.g. Audio and video tapes, transparencies, films, film strips, photographs, and charts. Verbal materials such as lectures, discussion groups, simulation, gaming and role playing. It includes field exercises or projects, study questions, problems to be solved, self-administered tests and other materials. The objective and the learning activities should be properly sequenced; and the subject matter should be correct, concise and presented in an interesting manner.

The study aimed to develop and validate learning modules in Technology and Livelihood Education- Dressmaking for Grade 7 students of the Junior High School of the University of Northern Philippines-Laboratory Schools. Specifically, it identified the learning competencies, discussed the developmental stage, determined the evaluators' assessment of the modules on the following aspects:

1. Content Characteristics: Objective, Clarity and Relevance and 2. Instructional Characteristics: Design, Suitability and Testing method.

The figure below illustrates the process involved in developing and validating the learning modules for instruction.

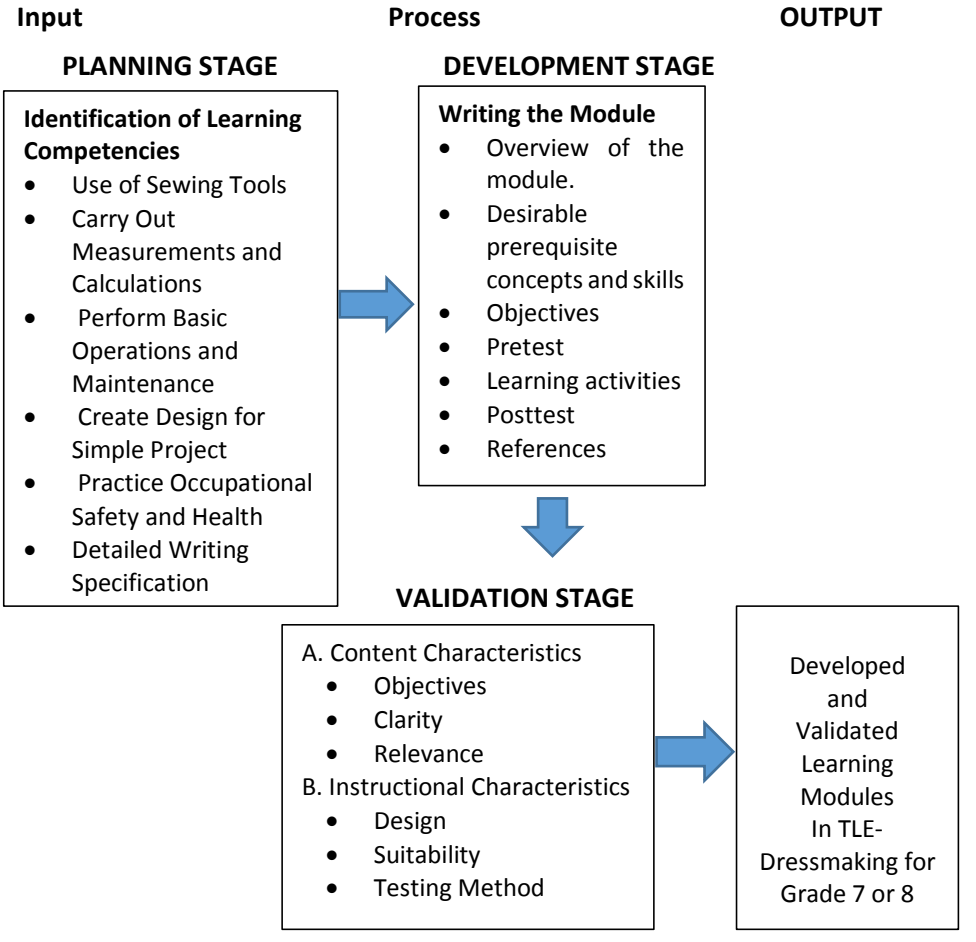

Figure 1: Conceptual Paradigm

The conceptual paradigm above shows the variables involved in the study. The input variables included the five (5) learning competencies for TLE Dressmaking for Grade 7, namely: 1. Use of Sewing Tools; 2. Carry Out Measurements and Calculations; 3. Perform Basic Operation and Maintenance; 4. Create Design for Simple Project, and 5. Practice Occupational Safety and Health. Development stage includes the writing of the module. The lessons in the module were evaluated along Content and Instructional characteristics. Content Characteristics include the objectives, clarity, and relevance. Instructional Characteristics include the Design, Suitability and Testing Method Used in the Module. After careful evaluation and revision of the learning modules, newly constructed and validated learning modules in TLE Dressmaking were developed.

METHODOLOGY

This study used the descriptive-evaluative research method. Eight experts in Dressmaking evaluated the learning modules regarding their content and instructional characteristics. The content characteristics of the modules included objectives, clarity, and relevance, while their instructional characteristics included the design characteristics, suitability, and testing method.

The instrument used in evaluating the modules was adapted from Estrañero (2001). It made use of a five-rating scale to describe the degree of agreement/disagreement of the evaluators on each of the items along content characteristics: objectives, clarity, and relevance; and instructional characteristics: design, suitability, and testing method of the modules.

Responses of evaluators on the positive statements to assess the content and instructional characteristics of the modules were rated as follows:

Score	Descriptive Rating
5	Strongly Agree
4	Agree
3	Neutral
2	Disagree
1	Strongly Disagree

Responses to the negative statements, on the other hand, were rated as follows:

Score	Descriptive Rating
1	Strongly Agree
2	Agree
3	Neutral
4	Disagree
5	Strongly Disagree

The following norm was arbitrarily used to interpret the result.

Mean Range	Item Descriptive Rating	Overall Descriptive Rating
4.25 – 5.00	Strongly Agree	Excellent
3.45 – 4.24	Agree	Very Good
2.65 – 3.44	Neutral	Good
1.85 – 2.64	Disagree	Fair
1.00 – 1.84	Strongly Disagree	Poor

Data Gathering Procedure

The development and validation of the modules in TLE Dressmaking for Grade 7 students involved three major stages such as planning, development, and validation.

A. Planning

1. **Preliminary Preparation**. This involved the examination of the K-12 curriculum guide for TLE Dressmaking for Grade 7. Based from the curriculum guide, the researcher listed down the topics and competencies to be included in the module such as use of sewing tools, carry out measurements and calculations, perform basic operations and maintenance, create design for simple project, and practice occupational safety and health. This part also included the identification, and selection of reference materials to be used in writing the modules.

2. **Detailed Writing Specification.** This step involved the specification of the over-all design of the five proposed modules.

B. Development Stage

1. Writing the Module

In writing the modules, the following steps were followed: (a) formulation of objectives for each lesson; (b) determination of the prerequisite concepts and skills for the lesson; (c) identification of learning activities necessary to achieve the objectives of the lesson; and (d) preparation of the pretest and posttest based on the content of the lesson.

C. Validation Stage

1. Validation of the learning modules. On this part, the modules were validated by eight (8) experts in the Dressmaking concerning their content and instructional characteristics using a tool adapted from Estranero (2001). The experts consisted of TLE – Dressmaking teachers: three (3) of them were retired faculty of the UNP-Laboratory Schools; two (2) from Ilocos Sur National High School; and one each from Narvacan National Central High School, Vigan National High School West and Naglaoan National High School.
2. Analysis of validation results. This includes tabulating and interpreting the data gathered from the evaluators of the developed modules.
3. Revision of the modules. Revisions of the modules were done based on the comments and suggestions of the experts.

The statistical tool used in this study was the mean in order to describe the evaluation scores of the expert-evaluators.

RESULTS AND DISCUSSION

Learning Competencies Considered in the Development of the Modules

The five common learning competencies considered by the researcher in the development of the modules were: use of sewing tools, carry out measurements and calculations, perform basic operations and maintenance, create design for a simple project, and practice occupational safety and health. These were based from the K to 12 curriculum for TLE-Dressmaking for Grade 7 because they gave importance to technology and livelihood education subjects in junior high school, and even in obtaining a National Certificate (NC) required by industries.

Development of Module Parts

The five modules were developed with the following parts:

Overview of the module. This is a preliminary introduction of the lessons that are contained in the modules and provides an idea of what to come next. One may consider this page as the initial part of face-to-face class or a presentation during which the teacher explains what will be discussed for the whole duration. This part gives a brief discussion on the content of the module. It includes the importance of the module, the main topics and sub-topics of the lesson.

Desirable prerequisite concepts and skills. These are the required knowledge and skills relevant for the students to master before taking the module.

Objectives. They are grouped into three key domains: cognitive, psychomotor, and affective. Each module objective specifies a specific, observable behavior, skill, or action in small, discrete pieces. These are viewed as the building blocks or tasks that lead students to mastery of a course objective.

Pretest. This test provides information in finding out if the student is ready or prepared to take a particular module. The researcher designed the following steps: Outline the Pretest Objectives, Choose the Pretest Method, Plan the Pretest, Develop Pretesting Guide and Develop the Questions.

Learning activities. This part is implementing active learning. It means shifting the focus of instruction away from knowledge transmission to learners' knowledge construction through guided activities, learning, interactions, and environments that cultivate deep, meaningful learning.

Posttest. This is a test given at the end of each module to determine the student's mastery of the lesson. A **test** given to students after completion of each segment of the module and use in conjunction with a pretest to measure students' achievement and the effectiveness of the designed module.

References. This is a listing of suggested reading materials for the students to have a clear and better understanding of the concepts presented in the module. Writing the reference begins with the author's last name and first initial, the year of publication, title, date of retrieval and the *Uniform Resource Locator* (*URL*) where the citation was obtained.

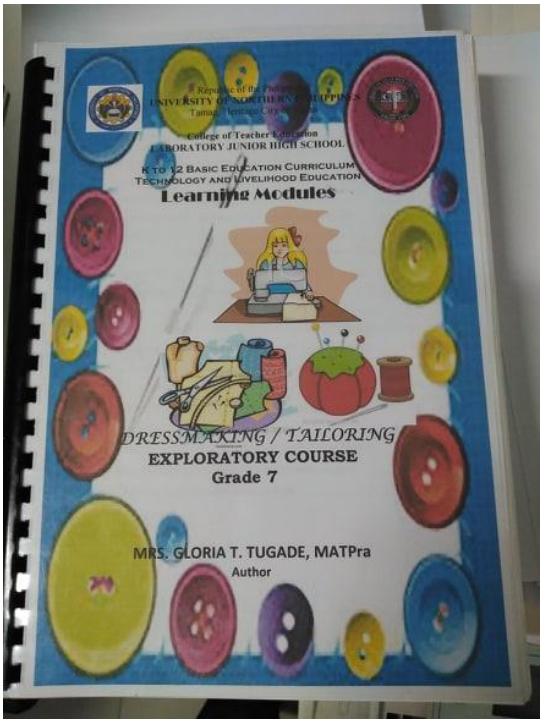

Figure 2. The five modules developed are combined together.

Evaluators' Assessment of the Modules

Content Characteristics. These included the qualities of the topics presented in the developed modules regarding objectives, clarity, and relevance.

Table 1 unveils the mean ratings given by the experts on the objectives of the module. As a whole, the objectives of the module obtained a mean rating of 4.92 described as **excellent**. All the evaluators **strongly agree** that the objectives of each lesson in the module are clearly stated on what is expected of the learner as proven by the perfect mean rating of 5.00. It can also be gleaned from the table that the evaluators **strongly agree** that the objectives of the modules are focused

on the development of critical and analytical thinking ($\bar{X}$= 4.88) and the objectives are attainable ($\bar{X}$=4.88). The findings imply that the objectives of the module stress critical thinking activities that make learning more challenging and interesting to the students.

Table 1
Item Mean Ratings Showing the Level of the Objectives of the Learning Modules

No.	Items on the Objectives of the Learning Modules	$\bar{X}$	Descriptive Rating
1.	The objectives of each lesson in the module are clearly stated on what is expected of the learner.	5.00	Strongly Agree
2.	The objectives focus on the development of critical and analytical thinking of the learner.	4.88	Strongly Agree
3.	The objectives are attainable.	4.88	Strongly Agree
	Overall	**4.92**	**Excellent**

A closer look at the data on Table 2 shows that the positive items in the module got an overall mean of 4.56 and is **excellent** regarding Clarity. The examples are well-organized and presented in increasing level of difficulty ($\bar{X}$=5.00), and the sample activities / performance tasks are presented with sufficient explanations ($\bar{X}$=5.00). The results imply that the modules are presented clearly regarding the basic concepts and principles ($\bar{X}$=4.75) and with accurate explanations ($\bar{X}$=4.88). Instructions in the module are clear and easy to understand ($\bar{X}$=4.88), and the vocabulary is within the reading ability of the students ($\bar{X}$=4.75). In terms of the negative statement, the experts **strongly disagree** that some questions/ problems need rewording based on the mean rating of 1.83.The concepts, principles, examples, activities, explanations and discussions of the lessons in the modules are well-organized and presented in such a way that these can be easily understood by the students.

Table 2
Item Mean Ratings Showing the Clarity of the Learning Modules

No.	Items on the Clarity of the Learning Modules	$\overline{X}$	Descriptive Rating
1.	Fundamental concepts and principles are clearly explained.	4.75	Strongly Agree
2.	The explanations of the concepts / principles are accurate.	4.88	Strongly Agree
3.	The examples are organized and presented from easy to difficult pattern.	5.00	Strongly Agree
4.	The sample activities / performance tasks are presented with adequate explanations.	5.00	Strongly Agree
5.	The instructions in the module are easy to understand.	4.88	Strongly Agree
6.	The discussions of each lesson in the module can be understood without much help from the instructor.	4.75	Strongly Agree
7.	Some questions/ problems need rewording.	1.83	Strongly Disagree
8.	The vocabulary used is within the reading ability of the students.	4.75	Strongly Agree
9.	The language of the module is clear regarding vocabulary.	4.88	Strongly Agree
10.	The activities comprehensively explain the concepts/principles covered in each lesson of the module.	4.88	Strongly Agree
	Overall	**4.56**	**Excellent**

Table 3 shows that the modules obtained an overall mean of 3.84 rated as **very good** regarding the relevance of the activities and performance tasks to the objectives of the modules. This is supported by the perfect mean rating of 5.00 for item 1 wherein the experts **strongly agree** that the activities and performance tasks in the module serve as enrichment tasks for a clearer and better understanding of the topics presented. The activities and performance tasks reinforce the content of the lessons and provide opportunities for the students to apply what they have learned to other subject areas or in new contexts. Also, the experts also **strongly agree** that the activities and performance tasks are relevant to the objectives of the module based on the mean rating of 4.88.

Table 3
Item Mean Ratings Showing the Relevance of the Learning Modules

No.	Items on the Relevance of the Learning Modules	$\overline{X}$	Descriptive Rating
1	The activities and performance tasks in the modules serve as enrichment tasks for a clearer and better understanding of the concepts and principles discussed.	5.00	Strongly Agree
2	The given activities and performance tasks are relevant to the objectives of the modules.	4.88	Strongly Agree
3	Some questions/problems are unnecessary and ought to be deleted.	1.63	Strongly Disagree
Overall		**3.84**	**Very Good**

On the other hand, item 3 which is a negative statement got a mean rating of 1.63 which implies that the experts **strongly disagree** that some questions/problems are unnecessary and ought to be deleted in the module. This implies that the given questions and problems in the study guide what are intended to be measured and are based on the lessons presented.

Instructional Characteristics. These refer to the kind of learning tasks given to the students and the quality of strategies and techniques used in the modules to attain such. These were evaluated along design, suitability, and testing method.

It can be gleaned from Table 4 that the design of the modules got an overall mean rating of 4.89 described as **excellent**. Items 2, 4 and 7 got a perfect mean rating of 5.00 which shows the fair assessment of the experts that they all **strongly agree** on the design characteristics of the modules. The lessons help students develop the positive attitude towards dressmaking, the style of writing and presentation are simple and appealing to the students, and the steps to be followed in each lesson are systematically presented.

Table 4
Item Mean Ratings Showing the Design of the Learning Modules

No.	Items on the Design Characteristics of the Learning Modules	$\bar{X}$	Descriptive Rating
1.	The lessons in the module can be performed even without help from the instructor.	4.75	Strongly Agree
2.	The lessons help students develop the positive attitude towards dressmaking.	5.00	Strongly Agree
3.	The design of each activity and performance task focuses on the objectives of each lesson in the module.	4.88	Strongly Agree
4.	The style of writing and presentation is simple and appealing to the students.	5.00	Strongly Agree
5.	The drawings and illustrations are clearly laid out.	4.88	Strongly Agree
6.	The visuals accompany some concepts to ensure learning through better understanding.	4.75	Strongly Agree
7.	The steps to be followed in each lesson are systematically presented.	5.00	Strongly Agree
	Overall	**4.89**	**Excellent**

Moreover, the experts also **strongly agree** on items 1, 3, 5 and 6. The lessons in the modules require less supervision of the teacher, the design of each activity and performance task focus on the objectives of each lesson in the modules, the drawings and illustrations are clearly laid out, and the visuals accompany some concepts to ensure learning through better understanding.

Table 5
Item Mean Ratings Showing the Suitability of the Learning Modules

No.	Items on the Suitability of the Learning Modules	$\bar{X}$	Descriptive Rating
1.	The modules take into consideration the varying attitudes and learning ability of the learner.	4.63	Strongly Agree
2.	The modular approach is Dressmaking can be used even when the learner does not have any background in the content area of Dressmaking.	4.63	Strongly Agree
3.	The needed tools, equipment and materials in the modules are simple and easy to handle.	4.88	Strongly Agree
4.	The learning activities in each lesson of the module can be carried out individually or by the group.	4.88	Strongly Agree
5.	The activities in the module require minimum teacher assistance and the students are expected to go through the modular activities without much difficulty.	4.55	Strongly Agree
6.	The lessons and activities are always ready to be used anytime.	4.75	Strongly Agree
7.	Each lesson in the modules focuses on well-defined topics.	5.00	Strongly Agree
	Overall	**4.76**	**Excellent**

As a whole, the learning modules got an overall mean rating of 4.76 described as **excellent** on its suitability with students' knowledge and skills in Dressmaking. Item 5 got a perfect mean rating of 5 which denotes a high degree of agreement of the experts that each lesson in the modules focuses on well-defined topics. Evidently, the experts **strongly agree** that the modules consider the nature of the learner ($\bar{X}$=4.63), it can be used even when the learner does not have any background in the content area of Dressmaking ($\bar{X}$=4.63), the needed tools, equipment and materials are simple and easy to handle ($\bar{X}$=4.88), the learning activities can be carried out individually or by group ($\bar{X}$=4.88), the activities require minimum teacher assistance ($\bar{X}$= 4.55) and the lessons and activities can be used anytime ($\bar{X}$=4.75). The results imply that the lessons in the modules are suited to the knowledge, skills, needs, and abilities of the students.

It is apparent in Table 6 that along the testing method of the developed modules, there is a strong agreement of the experts based on the ratings that they have given. As a whole, the modules obtained a mean rating of 4.78 described as **excellent** on the testing method used. Items 2 and 5 got a perfect rating of 5.00 which means that the experts **strongly agree** that the items included in the pretest and posttest are all discussed in the modules, and the tests are designed to determine how well the learner performed the specific tasks based on the objectives of each lesson in the modules. The results clearly emphasize one of the most important roles of the teachers in the classroom which is to assess objectively student learning. Huba and Freed (2000) defined assessment as a systematic process of gathering, interpreting, and acting upon data related to student learning and experience for developing a deep

understanding of what students know, understand, and can do with their knowledge as a result of their educational experience; the process culminates when assessment results are used to improve subsequent learning. The link of assessment and instruction was clearly stated by Villanueva (2007) in his presentation which states that better assessment means better teaching. Better teaching means better learning and better learning means better opportunities for better life.

Table 6
Item Mean Ratings Showing the Testing Method of the Learning Modules

No.	Items on the Testing Method of the Learning Modules	$\bar{X}$	Descriptive Rating
1.	The self-check test given at the end of each lesson in the module reflects the objectives of each lesson.	4.88	Strongly Agree
2.	The items included in the pretest and posttest are all discussed in the modules.	5.00	Strongly Agree
3.	Some items appear to have answer clues.	1.50	Strongly Disagree
4.	Some test items need rewording.	1.50	Strongly Disagree
5.	The tests are designed to determine how well the learner performed the specific tasks defined by the objectives of each lesson in the module.	5.00	Strongly Agree
	Overall	**3.58**	**Very Good**

Furthermore, it is also clearly presented in Table 6 that the test given at the end of each lesson in the modules allows the students to assess their understanding of what they have learned as proven by the mean rating of 4.88 which means that the experts **strongly agree** with item 1.

Items 3 and 4 got the lowest mean rating of 1.50 which denotes that the experts **strongly disagree** that some items appear to have answer clues and need rewording. This implies that the items in the modules are clearly stated and easily understood by the learner.

Table 7 presents the summary of the ratings given by the experts on the characteristics of the learning modules. As a whole, the modules obtained a mean of 4.43 rated as **excellent**.

The result denotes that the modules are **excellent** on content and instructional characteristics. An examination of each dimension of the content characteristics shows the objectives, clarity, and relevance of the modules. Likewise, each dimension of the instructional characteristics shows that the experts rated the modules **very good** along design, suitability and testing method.

Table 7
Mean Ratings Showing the Overall Characteristics of the Learning Modules

Quality Characteristics	$\bar{X}$	Descriptive Rating
I. Content Characteristics		
• Objectives	4.92	Very Good
• Clarity	4.56	Very Good
• Relevance	3.84	Very Good
Overall	**4.44**	**Excellent**
II. Instructional Characteristics		
• Design	4.89	Very Good
• Suitability	4.76	Very Good
• Testing Method	3.58	Very Good
Overall	**4.41**	**Excellent**
As A Whole	**4.43**	**Excellent**

The above results imply that the content or quality of the topics, the kind of learning tasks given to the students, and the quality of strategies and techniques used in the modules can greatly help the students. These findings conform to that of Estrañero's study (2001) which stated that the content and instructional characteristics of the modules are **excellent**.

CONCLUSIONS

The use of sewing tools, carry out measurements and calculations, perform basic operations and maintenance, create design for a simple project, and practice occupational safety and health were competencies considered in the development of the learning modules for TLE-Dressmaking for Grade 7. In writing the modules, objectives were categorized into three, cognitive, psychomotor and affective. Determination of the prerequisite concepts and skills for the lesson, identification of learning activities necessary to achieve the objectives of the lesson, and preparation of the pretest and posttest based on the content of the lesson and reference were discussed. The content and instructional characteristics of the developed modules are **excellent**. The learning modules can be of great help for students in learning independently the concepts, and acquiring essential skills needed in Dressmaking.

RECOMMENDATIONS

The following are therefore recommended based on the findings and conclusions of the study: The newly developed instructional material is highly recommended for use in teaching TLE Dressmaking for Grade 7. School administrators should take steps in the academe for the construction and validation of learning modules in the system of education at all levels particularly in the different areas of TLE. Validation of the effectiveness of the learning modules should be undertaken by future researchers.

LITERATURE CITED

Ali, R (2005). The effectiveness of modular teaching in Biology. Unpublished Research Dissertation, Arid Agriculture University, Rawalpindi, Pakistan

Axman, C. R (2005). Construction and validation of classroom achievement tests. Retrieved on June 12, 2016 from https://www.ericdigests.org/pre-9213/classroom.htm

DEPED Curriculum Guide (2012). Retrieved on June 12, 2016 from https://www.depedresources.com/download-k-12-curriculum-guides/

Estrañero, A. (2001). Construction and validation of modules in clothing. Unpublished Master's Thesis. University of Northern Philippines, Tamag, Vigan City

Loughran, J. & Berry, A. (2005). Modelling by teacher educators. Retrieved on June 24, 2018 from https://www.sciencedirect.com/science/article/abs/pii/S0742051X04001283

Reyes, J. W. (2012). Teaching the art of economic research in a senior seminar. Retrieved on June 12, 2016 from https://www3.amherst.edu/~jwreyes/papers/ReyesSeniorSeminar.pdf

Rumpus, A. (2003). Preparing your module for validation/ review. Educational Initiative Center, University of Westminster. Retrieved on June 12, 2016 from https://www.yumpu.com/en/document/view/24313116/preparing-your-module-for-validation-review-university-of-

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