

DESIGN, DEVELOPMENT, AND EVALUATION OF TRIANGLE CONGRUENCE MODULE FOR OPEN HIGH SCHOOL PROGRAM

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ABSTRACT: This article is part of the dissertation project where the ADDIE instructional model was used. ADDIE is an abbreviation for Analyze, Design, Develop, Implement and Evaluate. This study aimed to design, develop, and evaluate a mathematics module intended for the Open High School Program (OHSP). However, this article presents only the evaluation of the crafted module as perceived by mathematics teachers as content and pedagogy experts. The implementation part is yet to be done to see that the module perfectly meets the standards before it will be implemented to the students. Thirty-one (31) mathematics teachers examined and evaluated the modules based on the three indicators, which include: (1) content; (2) layout and design; (3) language. Results revealed that on the first evaluation, the evaluators observed minor errors-spelling, grammar, and formatting. They also found one major error which violates the persons with disabilities (PWDs) act. After revision, the evaluators gave a perfect rating. Hence, the researchers recommended that instructional developers should endeavor to obtain faultless instructional material no matter how many revisions are needed.

Keywords: ADDIE model, mathematics, mathematics education, instructional material, design, development, validation, teaching and learning module, open high school program.

1. INTRODUCTION

The importance of education is inevitable. The higher the education, the bigger the opportunities in life. However, in the Philippines, the problem of students dropping out in public secondary schools is as serious as ever. Statistics show that only 77% of elementary graduates continue to high school and a dropout rate of nearly 24 percent [1]

One of the solutions initiated by the government is the Open High School Program (OHSP). OHSP is an alternative modality within the formal school system. The purpose of this program is to enable students with difficult circumstances (i.e., working students, teenage mothers, etc.) to complete their secondary education in a flexible learning mode outside the classroom; but follows the national curriculum used in the regular high school program, applies the same assessment methods, and mobilizes the teachers from the regular program.

Under OHSP, the lessons are presented in modules with a minimal teacher's intervention (i.e., at least once a week) [1] In other words, this program relies on independent learning through the use of modules in delivering the lesson. However, it was found out that the instructional materials of OHSP were outdated, incomplete, and lacking [2]

Accordingly, the kind of instructional materials in schools mirrors the kind of education being offered [3]. No matter what the field is, the quality of education rests in the precise educational objectives at one end, effective assessment at the opposite end, with sound instructional procedures and materials in between [4]. Thus, any instructional material must pass through an extensive evaluation before it will be implemented for students.

Several studies on the development and evaluation of instructional materials in mathematics have been made. However, in the Philippines, these studies focused on the development and evaluation of module intended for college students [5], regular high school students [6], and alternative learning system (ALS) students [7]. Studies on the development and evaluation of mathematics instructional materials intended for open high school program students are

limited if there are any. On this lies the overall inspiration of this present study.

This study endeavored to design, develop and evaluate a module to be used for OHSP. This module aims to facilitate more effective instruction in concretizing the abstract concepts of triangle congruence and maximizing the OHSP students' learning experience.

2. METHODOLOGY

2.1 Research Design

This study employed descriptive research designs. It gathered both quantitative and qualitative data to describe the acceptability of the triangle congruence module in terms of its content, design and layout and language. The quantitative data was used to determine the acceptability level of the module, and the qualitative data was used to explain the quantitative result. According to [8], the descriptive research design is most useful to describe phenomena or events.

2.2 The Respondents

The respondents were the licensed regular Department of Education grade eight mathematics high school teachers from eleven (11) schools within the Municipality of Maramag and the Municipality of Don Carlos in the Division of Bukidnon. Thirty-one (31) teachers examined and evaluated the crafted modules for its acceptability based on the three indicators, which include: (1) content; (2) layout and design; (3) language. In addition, there were two qualifications in choosing these teacher-respondents: 1) math majors teaching math for at least five years and 2) teaching grade eight math in the K-12 Curriculum.

2.3 Instrument

This study used a 5-point Likert scale adapted from the Department of Education. This scale contains three areas to be evaluated such as content, design and layout, and language. Content area has four factors such as most essential learning competencies (40%), instructional design and organization (20%), instructional quality of text and visuals (20%), assessment (10%), readability (5%), and referencing and source citation (5%). The layout and design

area has three factors such as physical attributes (35%), format (30%), visuals (35%). Finally, language is assessed in terms of coherence and clarity of thought (35%), grammar and syntax (35%), spelling and punctuation (10%), consistency in style (20%).

The evaluators assessed the module on a scale from 1 to 5 with 1 as the lowest and 5 as the highest based on the criterion indicators specified for each factor. The scores per criterion item were added to get the score for each factor. Then, the score per factor was multiplied by its corresponding weight. The total of all the factors average weighted ratings were added, and the result was interpreted as passed if the total average weighted ratings is 100%, conditionally passed if the total average weighted ratings is from 61% to 99%, and failed if the total average weighted ratings is 60% and below. Furthermore, this instrument requires the evaluators to indicate the deficiency or error found in the module if ever the module did not perfectly meet the criterion item; and to give recommendations to address the deficiency or error found [3].

2.4 Design, Development and Validation of the Triangle Congruence Module

The module under this study is the unit Triangle Congruence. This is the coverage for the third quarter in grade 8 mathematics. In designing and developing this module, the researchers adapted the ADDIE model proposed by [9]. The model is an abbreviation for Analyze, Design, Develop, Implement and Evaluate. However, this article presents only up to the evaluation of the crafted module as perceived by mathematics teachers as content and pedagogy experts. The implementation part is yet to be done to see that the module perfectly meets the standards before it will be implemented to the students.

In the *analysis phase*, the researchers conducted a curriculum analysis, students' capabilities analysis, and reviewed previous studies and learning theories. In the curriculum analysis, the researcher checked the Most Essential Learning Competencies (MELCs) and the scope prescribed by the Department of Education for grade 8 high school students. In addition, she examined books and related materials on the topic. In analyzing the students' capabilities, the researcher interviewed the open high school teacher and coordinator. Who expressed that students need modules that are just short and concise since most of them are working students and that they do not have all the luxuries of the time. Also, to use just simple language because students are not that fast learners.

Moreover, lessons and answers on the activities must all be in the modules because the students cannot afford to pay for print expenses, they don't have cellular phones to use for internet surfing, and pay for mobile loads. In reviewing the previous studies and learning theories, the researcher reviewed different studies and theories of learning. This is very important since the purpose of this study is the creation of an instructional model to be incorporated into the modules. Learning theories are critical because they help to understand both how knowledge is created and how people learn [10]

After the analysis phase, the researchers finalized the learning outcomes and the topics to be modularized. Then,

the researchers identified the overall content layout of the modules. The first part of the module is the introduction which contains the application of the topic to the real world and the expected outcome for the grading period. It is followed by the instructions, the expected outcome(s), then the presentation of the lesson. The presentation of the lesson followed the *Review- Real-life context activity- Examine - Engage - Derive - Evaluate* (RREEDE) model in sequence.

The researchers then crafted the module on triangle congruence. There were eight most essential learning competencies covered on the third quarter topic on triangle congruence, producing eight self-learning modules. Different instructional activities were determined. In preparing the instructional activities for each lesson, the researcher ensured that they are written in a clear, conversational tone and appropriate language suitable to the grade eight high school students. Also, the pretest and posttest of the topics are based on the Most Essential Learning Competencies (MELCs) prescribed by the Department of Education K-12 Curriculum. Then, the crafted module was validated by the mathematics educators which consisted of a retired university professor, two university professors from the same university, and one professor from another university. Comments and suggestions were incorporated into the module. The evaluation phase involved only the formative evaluation. The modules were evaluated by the grade 8 mathematics teachers.

2.5 Data Gathering Procedure

The researcher asked permission from the Schools Division of Bukidnon Superintendent to allow her to make the math teachers from the different schools within the municipalities of Maramag and Don Carlos, as respondents of the study. Upon approval, the letter was forwarded personally by the researcher to the respective eleven (11) school principals together with another intent letter for permission. The principals willingly and immediately selected teacher respondents based on the prescribed qualifications. A short dialogue with the teachers then followed. The researcher greeted and introduced herself, gave written consent to the teachers. Furthermore, she assured that the confidentiality of the participants' responses must be kept because the researchers will use pseudonyms in reporting the result.

Subsequently, the researchers handed each a copy of the module together with the evaluation tool (rating sheet and rubric indicators) and conducted the orientation on how to use the evaluation tool in rating the modules. The same scenarios were all applied to all the schools visited. The researcher went back to the respective schools after a week to retrieve the evaluation tool from the teachers. During the retrieval, the researcher asked the evaluators to give their overall comments to the module, and this was recorded.

After the consolidation of results, the researcher made revisions to incorporate the suggestions of the evaluators. The revised modules were presented back to the same evaluators. This was done virtually due to the increased number of positive cases of COVID- 19 in this region where this study was conducted. For this study, the participants were assured that the confidentiality of their responses must be kept, their privacy must be respected, and that their responses must be used for the purpose of the study only.

2.6 Data Analysis

To analyze the data, the researchers employed mean and weighted mean. The mean was used to summarize the rating of the evaluators. This statistical procedure is appropriate because the evaluators rated the module using a Likert scale. So, the data gathered is continuous. Mean is the proper measure of central tendency to use if the data is continuous because every data value contributes to the calculation of the mean [11]. The weighted mean was used to interpret the level of the acceptability of the module. This procedure was dictated by the instrument adapted from this study.

3. RESULTS AND DISCUSSION

The module was evaluated in three components: content, layout and design, and language. The content was assessed in terms of six factors; the most essential learning competencies (Factor I), instructional design and organization (Factor II), instructional quality of text and visuals (Factor III), assessment (Factor IV), readability (Factor V), referencing and source citation (Factor VI). The layout and design were assessed in terms of three factors; physical attributes (Factor I), format (Factor II), and visuals (Factor III). On the other hand, no factor was specified for the language. The language was assessed in terms of criterion indicators only, but with corresponding weight per indicator. Below are the results of the teachers' evaluation of the Triangle Congruence Module presented by components.

Table 1 presents the descriptive statistics of the teachers' evaluation of the instructional module in terms of content. The module perfectly met all the standards specified in Factors I, II, IV, V, and VI. In addition, the qualitative data shows that the module possessed many promising features. The evaluators saw that the modules contained the most essential learning competencies intended for the quarter and could develop the 21st-century skills of the students. F5 stated that:

Verbatim: *“Congratulations! Modules are very fit for grade 8 students, competency content-based gyud siya. Naka angkla gyud siya sa MELCs. Makamotivate sa mga bata, ma engganyu ang mga bata ug answer. 21st-century skills gyud ang madevelop sa bata if they are going to use your modules, very helpful for them to develop their mathematical skill.”*

English translation: *“Congratulations! Modules are very fit for grade 8 students. They are really competency content-based, anchored on Most Essential Learning Competencies (MELCs). The students are motivated to read and they will be inspired and interested to answer the activities. If they will use your modules, it would be helpful and easier for them to develop their mathematical skills. In addition, their 21st-century skills will really be developed too.*

They also observed that the module had varied motivational activities, which includes a puzzle. The puzzle asked the students to unlock a secret message by answering a mathematical task in a select-response format. The students then write the letter of their answers in a decoder provided in

the module. The students only get the message if they got the correct answer in every item. The evaluators believed that activities like this could raise the students' curiosity. F8 further narrated that:

Verbatim: *Chada siya kay naay mga message after sa activity. Ma curius ka unsa napud na message. Mas daghan unique activities. Makarelate ang bata kung mu answer sila, maka interest sa mga bata, mas maka excite nga mu anser gyud sila. As teacher mas mu prefer sila sa RREDE module. Mas simple. E adopt gyud namu kay nice gyud siya.*

English translation: *It is a nice module because there are messages after the activity. This made me curious about what will the next message be after another topic. There are plenty of unique activities. The students can relate if they answer. They will be interested and will raise their excitement to answer. As a teacher, I prefer the RREDE module. It is simpler. We really have to adopt this because it is really nice.*

The evaluators mentioned that the module is contextualized. The activities are based on real-life scenarios familiar to students. F1 mentioned that:

Verbatim: *Nindut kaayu siya, cover pa lang ma encourage na sa pagpadayun, real- life ang presentation. Ang paghimu pud sa illustration chada, then all of the activities were based on real- life situation, I enjoyed looking at your modules.*

English translation: *The module is nicely made. By first looking at the cover page, the reader is already motivated and encouraged to continue reading the contents. The presentation of the lesson is very related to a real-life context. The illustrations are very well made. All the activities were based on real-life situations. I enjoyed looking at your modules.*

They also stated that the module is self-directed. They thought that the students could answer the activities by themselves alone. According to F16:

Verbatim: *Module is contextualized based gyud sa learners. Ang mga bata maka answer independently bahalag siya lang, makaya ra sa eya level. Daghan activities nga maka motivate ug boost sa interest sa mga bata nga magpadayun sa modules.*

English translation: *The module is contextualized based on the learners. Even if the student is alone, at his level, he can independently answer the questions. Most of the activities can motivate and boost the students' interest to go on and continue reading and perform the activities given in the module.*

Table 1 Experts' rating of the instructional module in terms of content

Factors (Assigned Weight)	Standards/ Criterion Items	First Evaluation		Second Evaluation	
		Mean score	Average Weighted Rating	Mean score	Average Weighted Rating
Factor I: Most Essential Learning Competencies (40%)	1. The Modules covered the targeted Most Essential Learning Competencies (MELCs) intended for the quarter.	5.00	40 %	5.00	40 %
	2. The Modules sufficiently developed the targeted MELCs intended for the quarter.	5.00		5.00	
	Total	10.00		10.00	
Factor II: Instructional Design and Organization (20%)	1. Modules have learning objectives that are anchored on the MELCs.	5.00	20 %	5.00	20 %
	2. Modules use a variety (at least 3) of self-directed techniques, learning tasks, and formative assessments.	5.00		5.00	
	3. Modules have contents that are logically developed and organized, i.e., lessons/activities are arranged from simple to complex, from observable to abstract.	5.00		5.00	
	4. Modules contain essential instructional design elements that contribute to the achievement of learning objectives.	5.00		5.00	
	5. Modules allow for review, comparison, and integration with previous lessons (if applicable).	5.00		5.00	
	6. Modules use various motivational strategies (i.e., concept maps, puzzles, games) to hook the target user's interest and engagement.	5.00		5.00	
	7. Modules use process questions and activities which require different levels of the cognitive domain to achieve desired learning outcomes.	5.00		5.00	
	8. Modules have written and performance tasks that are differentiated based on the target user's multiple intelligences, learning styles, and readiness levels.	5.00		5.00	
	9. Modules develop 21 st -century skills and higher-order cognition (i.e., critical thinking, creativity, learning by doing, problem-solving).	5.00		5.00	
	10. Modules integrate desirable values and traits.	5.00		5.00	
	Total	50.00		50.00	
Factor III: Instructional Quality of Text and Visuals (20%)	1. All contents in the modules are accurate.	4.84	19.74 %	5.00	20 %
	2. The modules are free from any social content violations.	4.90		5.00	
	3. The modules are free from factual errors.	5.00		5.00	
	4. The modules are free from computational errors.	5.00		5.00	
	Total	19.74		20.00	
Factor IV: Assessment (10%)	1. The modules provide at least 3 sufficient assessment activities that will help the learner track his/her progress and mastery of the target competencies.	5.00	10 %	5.00	10 %
	2. Modules have assessments that are aligned with the specific objectives and contents (i.e., lesson/topic).	5.00		5.00	
	3. The modules provide a variety of at least 3 assessment types.	5.00		5.00	
	4. The modules have assessment activities that ensure the active engagement of learners.	5.00		5.00	
	5. The modules have answer keys that provide exact answers.	5.00		5.00	
	Total	25.00		25.00	
Factor V: Readability (5%)	1. Vocabulary used in the modules is appropriate to the target user's level of comprehension and experience.	5.00	5 %	5.00	5 %
	2. The length and structures of sentences in the modules are suited to the comprehension level of the target users.	5.00		5.00	
	3. Paragraph structure in the modules facilitates the smooth flow of ideas and concepts.	5.00		5.00	
	4. Topics and ideas presented from one lesson to the next are coherent and integrated.	5.00		5.00	
	5. Instructions, discussion points, questions, and activities are clear to the target users.	5.00		5.00	
	Total	25.00		25.00	
Factor VI: Referencing and Source Citation (5%)	1. The copyrighted texts and visuals are accurately cited on the page where they are presented.	5.00	5 %	5.00	5 %
	2. The references are properly cited in the reference list.	5.00		5.00	
	Total	10.00		10.00	
OVERALL RATING		99.7%		100%	

Average Weighted Rating: 100% = Passed;

61%-99% = Conditionally Passed;

60% and below = Failed

They highlighted that the module is easy to understand because the learning activities are sequenced appropriately, and the explanation is very detailed, F21 narrated that:

Verbatim: “Mam kung ako bitaw estudyante makasu-on gyud ko makasabut gyud ko deretsu naganu? ,gibasa nako ang sequencing mam grabi gyud kay ang sequence sa learning nasunund gyud ba unya katung sa congruence kung akuy estudyante ani makasabut jud ko pagka explain, detailed gyud kaayu kanang gasunud gyud ang concepts. Ing ani diay magbuhat ug module?”

English translation: "Ma'am, if I am the student, I can really follow and understand the lessons in the module. Why? I have read the sequencing and I noticed that the sequence of the topics and the difficulty of learning was followed. About the congruence of triangles, if I am the student, I can really understand the explanation. The concepts are well presented and well-illustrated. Is it really like this to make a module?"

Furthermore, they observed that the module is easy to understand because the language used is simple. F4 said that:

Verbatim: I am happy for you for arriving this kind of learning material, it is nice, the model is good. Very useful. From the cover page na amazed nko ana daan down to the last page. Samut na sa content and language nga gigamit, ang mga words sabutabol ra sa learners, clear, makadani sa mga students ang na arrive nimu nga learning material.

English translation: I am happy for you for arriving this kind of learning material, it is nice, the model is good. Very useful. From the cover page, I was so amazed down to the last page. The more impressed I am with the content and the language used. The words are simple and easy for the students to understand, clear! The learning material that you developed will really inspire and motivate the students.

However, in spite of the promising features of this module, it cannot be implemented for students because it did not seamlessly meet some of the standards specified in factor III [3]. Specifically, items 1 and 2. Based on these items, the modules were rated 4.84 and 4.81, respectively. Some evaluators observed that one content in the module is inaccurate. They observed that the follow-up question is about the line, but the discussion is about the plane. The evaluators recommended changing the word from line to plane (see figure 2). They also noticed that one of the activities in the modules required students to use their hands. According to the evaluators, the activity could humiliate the students with disabilities or abnormalities. It is discriminating for the students who have more or an insufficient number of fingers than the normal one. They suggested that any part of the body should not be used as an example or an illustration to consider persons with disabilities or abnormalities (see figure 3).

Description of Error/Deficiency Found	Specific Part of the Page (Lesson, Page, Paragraph, Line Number)	Recommendation
o) The question is about line but the topic is about plane	Module 1, page 9, line 9	The word line must be changed to plane.

Fig. 2 Comment and suggestion of F22

Description of Error/Deficiency Found	Specific Part of the Page (Lesson, Page, Paragraph, Line Number)	Recommendation
H. violates PwD especially those who had hand disability	Congruent triangles, 35 (hand image)	Use image such as things in the environment to represent congruence.

Fig. 3 Comment and suggestion of F8

With the two observations mentioned above, the researchers revised the module to address the evaluators' issues and handed the module again to the evaluators. Finally, the teacher-evaluators gave a perfect rating on the second evaluation because their suggestions were considered and incorporated in the modules. Figures 4 and 5 are the activities in the module presented to evaluators before and after revision, respectively.

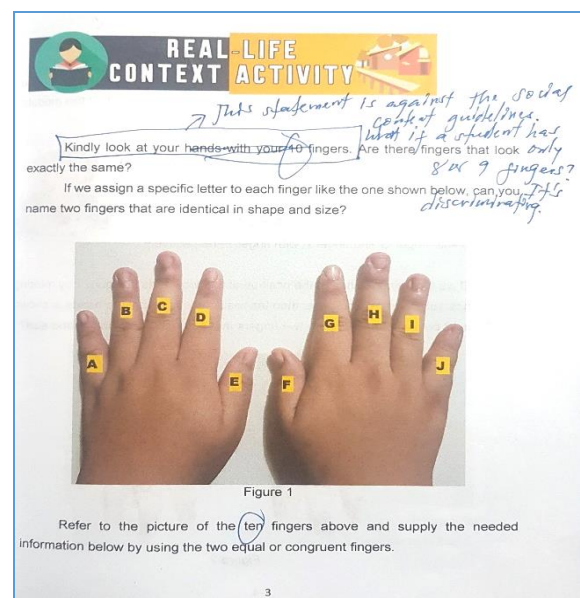


Fig. 4 Activity before revision



Fig. 5 Activity after revision

Table 2 presents the descriptive statistics of the teachers' evaluation of the instructional module in terms of layout and design. The module perfectly met all the standards specified in factor I and factor II. This means that the module passed the standards for Physical Attributes and Formatting. The cover and all other necessary elements in the modules are complete, the heading styles are consistent, the font styles and size of letters are appropriate to the target learners, proper spacing are observed, and there is balance in the illustrations and texts. F2 said that:

Verbatim: *Mas ganahn ko sa emong mudule kay colorful siya, dili dikit ang spacing, hamugaway tanawun. Mas ganahan ko basahun siya, mas ganahan ko sa activities pud, mas sayun siya compare sa activities sa module sa DepEd.*

English translation: *I like your developed module because it is colorful, the spacing between words and sentences are not too close to each other, very pleasing to the eyes. I really like reading your module, I also like the activities, it is easier compared with those activities found in the module used by the Department of Education (DepEd).*

Table 2 Descriptive Statistics of the Teachers' Evaluation of the Instructional Module in terms of Lay-out and Design

Factors (Assigned Weight)	Standards/ Criterion Items	First Evaluation		Second Evaluation	
		Mean score	Average Weighted Rating	Mean score	Average Weighted Rating
Factor I: Physical Attributes (35%)	1. Cover elements are correct and complete. It has grade level identifier, quarter number and module number, learning area, module title, cover art.	5.00	35%	5.00	35%
	2. All the following necessary elements in the modules are complete. It has preliminary pages, title page, the introduction of the module, body presentation, back matter, references, others, answer key	5.00		5.00	
	Total	10.00		10.00	
Factor II: Format (30%)	1. Headings have consistent heading styles(i.e., main heads, subheads, sections, and subsections).	5.00	30%	5.00	30%
	2. The size of letters on each page is appropriate for the target user (11-12 pt for Grades 5 to 10)	5.00		5.00	
	3. Font styles used on each page are appropriate for the target user.	5.00		5.00	
	4. Each page observes proper spacing between letters, words, and paragraphs.	5.00		5.00	
	5. The pages observe an appropriate balance of illustrations and texts.	5.00		5.00	
	Total	25.00		25.00	
Factor III: Visuals (35%)	1. The visuals used are simple, relevant, and easily recognizable.	4.90	34.6%	5.00	35%
	2. The visuals are proportionately drawn in size, appropriately placed on the page, and use appropriate color when needed.	4.90		5.00	
	3. The visuals are properly labeled/captioned (if needed).	5.00		5.00	
	4. Visuals are consistently clear in content and detail.	4.90		5.00	
	5. The visuals of a process involving separate steps or actions are consistent and have individual pictures or frames.	5.00		5.00	
	Total	24.70		25.00	
OVERALL RATING		99.6%		100%	

Average Weighted Rating: 100% = Passed; 61%-99% = Conditionally Passed; 60% and below = Failed

Even supposing the positive feedback above, the module cannot be implemented yet because it did not meet the standards specified in factor III because three items were rated lower than 5. Namely, criterion items 1, 2, and 4. Based on criterion items 1, 2, and 4, the module was rated 4.90 because the evaluators noticed that there is a page in the module that has a blurry visual, colors are not clear, and the font used and sizes are not appropriate. They suggested creating visuals with appropriate sizes with clear lines and labels and minimizing borders because it overlaps the image (see figure 6).

Due to these three observations, the overall rating of the module in terms of layout and design is 99.6% which means conditionally passed. This implies that the module cannot be implemented to students. Therefore, the researchers revised the module to address the issues found by the evaluators because a module can only be implemented if the evaluation rating is 100% [3].

Description of Error/Deficiency Found	Specific Part of the Page (Lesson, Page, Paragraph, Line Number)	Recommendation	No./Percentage
Blurry visuals		Make your visuals with appropriate sizes, clear lines and labels.	
Colors are not clear, different font use, sizes are not appropriate	Congruent triangles P. 2	Also minimize borders on the images. Sometimes it overlaps the image.	

Fig. 6. A teacher's response in terms of the layout and design of visuals.

Finally, the evaluators rated a perfect rating on the second evaluation because their recommendations were considered and realized in the modules. Figures 7 and 8 are the activities in the module presented to evaluators before and after revision, respectively.

Given: N is the midpoint of \overline{AB}
 $\overline{AX} \cong \overline{NY}, \overline{NX} \cong \overline{BY}$

Prove: $\angle X \cong \angle Y$

Fig. 7 Activity before revision

Given: N is the midpoint of \overline{AB} .
 $\overline{AX} \cong \overline{NY}, \overline{NX} \cong \overline{BY}$

Prove: $\angle X \cong \angle Y$

Fig. 8 Activity after revision

Table 3 presents the descriptive statistics of the teachers' evaluation of the instructional module in terms of language. The module perfectly met the standards specified in standard D, meaning the modules' styles are consistent. But then again, the module did not meet three of the standards. Standard A (Coherence and Clarity of Thought) obtained an average rating of 4.97 because of one teacher who rated 4 because he found eleven errors in the coherence and clarity of thought. Also, in standard B an average rating of 4.90 was recorded because one teacher rated 2 because he found 40 errors in the grammar and syntax. Moreover, standard C (Spelling and Punctuation) has an average rating of 4.97 because of one teacher who rated 4 because he found twenty (20) errors under spelling and punctuation. Therefore, the overall rating of the module in terms of language is 99.03% which means conditionally passed.

Table 3 Descriptive Statistics of the Teachers' Evaluation of the Instructional Module in terms of language

Standards/ Criterion Items (Assigned Weight)	First Evaluation		Second Evaluation	
	Mean score	Average Weighted Rating	Mean score	Average Weighted Rating
A. Coherence and Clarity of Thought (35%)	4.97	34.77%	5.00	35%
B. Grammar and Syntax (35%)	4.90	34.32%	5.00	35%
C. Spelling and Punctuation (10%)	4.97	9.94%	5.00	10%
D. Consistency in Style (20%)	5.00	20.00%	5.00	20%
TOTAL		99.03%		100%

100% = Passed, 61%-99% = Conditionally Passed, 60% and below =Failed

Paragraph No.	Line No.	CLASSIFICATION				Descri Errors
		A	B	C	D	
		Coherence and Clarity of Thought (35%)	Grammar and Syntax (35%)	Spelling and Punctuation (10%)	Consistency in Style (20%)	
Total No. of Errors		11	40	20	5	
ing of Total Errors		4	2	4	5	
						Indic Equi Ratin Total

Fig. 9. Teacher's evaluation response in terms of the language

Hereafter, the researchers revised the module to address the disagreements. As a result, the evaluators gave a perfect rating because their suggestions were considered and employed in the modules on the final evaluation. Presented below is the revision made on the deficiency found under coherence and clarity of thought.

The angles marked with one arc are equal in measure. Similarly, the angles marked with two arcs are also equal and also for the angles marked with three arcs. This means that *the measure of:*

- ~~the measure of angle A is equal to the measure of angle O~~
- ~~the measure of angle C is equal to the measure of angle D~~
- ~~the measure of angle T is equal to the measure of angle G~~

In addition, the sides marked with one line are equal in length. The same is true for the sides marked with two lines and also for the side marked with three lines. This means that *the length of the:*

- ~~the length of the side CA is equal to the length of the side DO~~
- ~~the length of the side AT is equal to the length of the side OG~~
- ~~the length of the side CT is equal to the length of the side DG~~

Therefore, congruence $ACT \leftrightarrow ODG$ between the two triangles above is a

Fig. 10 Activity before revision

The angles marked with one arc are equal in measure. Similarly, the angles marked with two arcs are also equal and also for the angles marked with three arcs. This means that the measure of:

- angle A is equal to the measure of angle O.
- angle C is equal to the measure of angle D.
- angle T is equal to the measure of angle G.

In addition, the sides marked with one line are equal in length. The same is true for the sides marked with two lines and also for the side marked with three lines. This means that the length of the:

- side CA is equal to the length of the side DO.
- side AT is equal to the length of the side OG.
- side CT is equal to the length of the side DG.

Therefore, congruence $ACT \leftrightarrow ODG$ between the two triangles above is a

Fig. 11 Activity after revision

4. CONCLUSION AND RECOMMENDATION

These instructional modules were evaluated twice by the same respondents to make sure they would meet the standards. On the first evaluation, the evaluators observed minor errors-spelling, grammar, and formatting. However, they also found one major error which violates the persons with disabilities law (PWDs). Nevertheless, after revision,

the evaluators gave a perfect rating. This evaluation method is based on the adapted ADDIE model of Gustafson and Branch (2002) that the evaluation phase includes formative. Formative evaluations are basically done to permit the designers to catch the deficiencies of an instructional material so that proper learning can take place.

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