SELF-INSTRUCTIONAL MATERIAL (SIM): A TOOL FOR IMPROVING STUDENT'S LOWER ORDER THINKING SKILLS

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ABSTRACT

This study aimed to determine the effectiveness on the use of self-instructional material as a tool for improving lower order thinking skills of Grade 8 students in Col. Lauro D. Dizon Memorial Integrated High School. It used single group pretest-posttest descriptive correlational experimental design participated by thirty (30) students. Using the Mean and Standard Deviation, findings revealed the perceptions of the respondents toward the use of self-instructional material in teaching Geometry were agreed by the respondents in most of the indicators. This implies that SIM really helped them in understanding important concepts in Geometry and improved their knowledge in it. The respondent's perception on the characteristics of SIM as to self-explanatory, self-contained, self-directed, self-motivating, and self-evaluating were agreed by most of the respondents. This means that the said characteristics of the SIM were present and seen. For treating the Diagnostic and Achievement test scores, t-test for correlated samples were used. The lower order thinking skills of the respondents from diagnostic to achievement test leveled up from need improvement or developing to proficient or exemplary level in remembering, understanding and applying skills. It was assessed that there is a significant difference in the cognitive skill of students in the Diagnostic Test and the Achievement Test as to remembering, understanding, and applying. Pearson r was used to test the significant relationship between the respondents' perception on lessons using SIM and their Achievement Test scores. As a result, there is a partial significant relationship which is between the self-motivating and applying.

Keywords: Lower Order Thinking Skills, Self-Instructional Materials

INTRODUCTION

Due to the COVID-19 outbreak, students and teachers have been unable to engage in face-to-face learning within the school. As a result of the epidemic, Modular Distance Learning has been implemented as an immediate reaction to ensure educational continuity. (Dangle & Sumaoang, 2020)

Distance learning is a type of learning that takes place between a teacher and students who are geographically separated at the time of teaching. Modular Distance Learning (MDL), Online Distance Learning (ODL), and TV/Radio-Based Instruction are the three types of this modality. (Quinones, 2020)

One of the advantages of employing modules for instruction is that pupils develop greater self-study or learning skills. Students actively participate in understanding the concepts provided in the module. They gain a sense of responsibility as they complete the tasks in the module. (Dangle & Sumaoang, 2020)

According to GradePower Learning (2018), Mathematics is a very abstract subject. Students learn best when they can apply what they've learned to real-life situations (that is for students with higher order thinking skills). That

can be tough to execute when math becomes more complex and difficult (for students with low order thinking skills). As a result, many students discover that they must work harder and practice longer in order to comprehend more abstract arithmetic topics. The lower-order thinking skills must be mastered before moving on to the higher-order thinking skills. Remembering, Understanding, and Applying are examples of lower-order cognitive skills.

Based on Melad (2016), most students under secondary level do not like mathematics and are considered not good in this subject in which they usually got low marks. In addition to this, the duration of teaching this subject is also limited in which the teacher does not get the chance of paying attention to the students who have difficulty in understanding the subject. The self-instruction program or modules are created lessons for the students to learn on their own, finding ways for themselves on how to cope with the subject, answer each part then giving feedback whether they did it right or wrong. This self-instructional program may be called program lesson, program instruction, auto instructional device, teaching machines or in easiest way the self-teaching materials. The use of a self-instructional program, maybe, is a better method to overcome the problem for it plays an important role in teaching Mathematics. This program is not only useful to a group of students who are considered fast learners but also it can be used in handling remedial classes for low achievers or struggling learners in the said field. It may also help those struggling learners to catch up in understanding the lessons with the help of others other than their classmates. This type of teaching aid can be used by students during their free time allowing them to learn at their own pace aside from relieving the teacher from tutorial functions. Based on his study, the use of modules as a remedial teaching material can significantly increase the achievement level of the experiment group. Programmed instruction is a type of learning experience in which a computer program acts as a tutor for the student, guiding him through the material more likely than he will behave in a desired manner in the future. He will discover that the program is intended to instruct him. The students work through the tasks at their own pace, giving them the option to check and see if their answers are correct or incorrect straight away. This means that modules or self-instructional programs should be designed in such a way that they improve learning and other innovation potential. Experts in education have advocated the use of instructional resources such as modules in instruction to be able to cater to the needs of individual students. Any technology (printed or non-printed materials) used for teaching progress is referred to as instructional materials. This includes: Textbooks and teacher's manuals, Supplementary reading materials, Calculators and computers, Audio-visual aids, Modules

Department of Education Secretary Briones (2019) believed that the country is persevere in achieving its aim to provide accessible education for every Filipino citizen to complete their basic education to gear them in facing everyday challenges and equipping them for this complex world. While accessible education remains the major priority of the government, Secretary Briones evaluates the result of the performance of the students in large scale assessment, the National Achievement Test, which is administered for the Grade 6, Grade 10, and Grade 12. The NAT result indicated the low-level performance of the students specifically in Science, English and Mathematics.

Furthermore, the result of the 2018 Programme for International Student Assessment (PISA) showed that Filipino students are the least in reading comprehension among the 79 participating countries, and are second to the lowest in both Mathematical and Scientific Literacy, Galvez (2019).

Hence, the call of the DepEd secretary is *"*Sulong EduKalidad*"*, addressing the challenge of quality in basic education. It is an awakening time to the Philippine Government and the educators to sharpen the focus on the quality of the education that is given to our students by upgrading the curriculum and the teaching-learning process to a global-education standard.

Thus, the researchers believed that a better method to overcome the problem is the

use of this self-instructional material or modules that is more contextual and more appropriate for the low achievers. This Self-Instructional Material: A tool to improve students' lower order thinking skills is given emphasis in this study. The researcher is of the idea that with the help of this tool, efficient teaching and effective learning outcomes will be facilitated.

OBJECTIVES OF THE STUDY

This study determined the determine the effectiveness of Self-Instructional Material (SIM): A Tool for Improving Students with Lower Order Thinking Skills for selected Grade 8 Students of Col. Lauro D. Dizon Memorial Integrated High School, School Year 2020-2021. Specifically, it sought to 1) determine the perception of the respondents toward the use of SIM in teaching Geometry; 2) describe the respondents' perception on the characteristics of SIM as to self-explanatory, self-contained, self-directed, self-motivating, and self-evaluating; 3) determine the level of lower order thinking skills of the students in the diagnostic and achievement test in terms of remembering, understanding, and applying; 4) determine if there is a significant difference in the lower order thinking skills of students in the Diagnostic Test and the Achievement Test as to remembering, understanding, and applying; and 5) determine if there is a significant relationship between the respondents' perception on lessons using SIM and their Achievement Test scores.

METHODOLOGY

Single group pretest-posttest descriptive correlational experimental design was used to find out the effectiveness of the researcher-made Self-Instructional Material in Geometry. According to the study of Calmorin (2006), learners are given a Diagnostic test at the beginning of the experimental period and Achievement test at the end of the experimental period. Purposive sampling technique was used in the study. Those who got a score of 15 and below during the diagnostic test were the ones given the self-instructional material, the achievement test and the feedback form.

To gather data in this study, the researchers made a Diagnostic and Achievement Test and the Self-Instructional Materials (SIM). The SIM were the printed materials used in the entire study personally constructed by the researchers. It consisted of activities that focus on lower order thinking skills in geometry, in particular, key concepts of triangle congruence. It was constructed and developed by undergoing two stages such as planning and construction. In the planning stage, consultations were made with the thesis adviser, Mathematics specialists, and other consultants. Books, similar studies and researchers, and other supporting documents were also referred to as to come up with the right ways of constructing self-instructional materials. During the construction stage, the selected topics included in the self-instructed materials were carefully studied and analyzed. The researchers made a diagnostic test and achievement test which both comprised 40 items multiple choices. A table of Specifications was primarily done to achieve a number of test questions comprising remembering, understanding and applying. To measure the responses of the students, the researcher got the mean score of each respondent. After the diagnostic test was administered, the researcher started chatting with the Grade 8 students every Monday to Friday at exactly 2:00-3:00 pm for three (3) consecutive weeks. In this period of time, the researcher taught triangle congruence and used her self-instructional materials to improve students' lower order thinking skills in mathematics every scheduled hour-time of the students. On the last day of the meeting, the teacher conducted a 40-item achievement test to measure the learning progress of the students. The results of the test were carefully checked, tabulated and recorded with full confidentiality.

Parallel to this, Frequency distribution was applied to determine the Diagnostic Test and Achievement test scores of the respondents. Mean and Standard Deviation were used to determine Students' Perception toward the use of Self-Instructional Material in

Teaching Geometry. The t-test for correlated samples was used in treating Diagnostic Test and Achievement test scores. Pearson r was used to test the significance of relationship between the students' perceptions and their achievement test score. Both inferential statistical treatments are considered significant at 0.05 level of significance.

RESULTS AND DISCUSSION

1. Respondents' Feedback on the use of SIM in Teaching Geometry

Table 1
Respondents' Feedback on the use of SIM in Teaching Geometry

Indicators *The Self-Instructional Materials…*	Mean	SD	V.I.
1. help me learn the lessons more easily	3.40	0.50	A
2. provide sufficient repetition of learning through examples and activities to easily understand the lessons	3.37	0.49	A
3. provide me with a better way to understand the lessons in Geometry	3.33	0.48	A
4. improve my knowledge and skills in Mathematics	3.47	0.51	A
5. makes me aware of the expected outcomes of the study	3.43	0.50	A
6. arouse my interest and attention in Learning Mathematics	3.37	0.49	A
7. give me the opportunity to enjoy Mathematics while learning	3.47	0.51	A
8. help me facilitate retention	3.27	0.45	A
9. present the lesson to be learnt	3.43	0.50	A
10. offer guidance for learning	3.40	0.50	A
Overall	**3.39**	**0.38**	**A**

Table 1 shows the mean perception of the respondents on the use of self-instructional material in teaching and learning Geometry. As specified, all the indicators were "Agreed" by the respondents which means that self-instructional material (SIM) really helped them in understanding important concepts in Geometry and improved their knowledge in it.

With an overall mean of 3.39 and standard deviation of 0.38 which is interpreted as "Agree", the respondents found out that the use of self-instructional material helps them in the teaching and learning process.

2. Characteristics of SIM: A Tool for improving Lower Order Thinking Skills as to self-explanatory, self-contained, self-directed, self-motivating, and self-evaluating

2.1. In terms of Self- Explanatory

Table 2
Respondents' Perception on the Characteristics of the Self-Instructional Material as Self-Explanatory

Indicators	Mean	SD	V.I.
1. The content is written in simple language: clear and easy to understand.	3.50	0.51	SA
2. The material does not require any intermediary (teacher) to explain the content.	3.23	0.43	A
3. It helps distance learners assimilate the content by reading and working through the instructions.	3.43	0.50	A
4. A teacher is built in, into the text.	3.40	0.50	A
5. It is different from instructional manuals that come with electronic gadgets or home appliances.	3.33	0.48	A
Overall	**3.38**	**0.40**	**A**

Table 2 shows the perceived characteristics of the material as self-

explanatory. As indicated, the indicator with the highest mean is the one pertaining to the content written in simple language: clear and easy to understand, which has a mean of 3.50 and standard deviation of 0.51 which is interpreted as Strongly Agree. The other indicators all agree with an overall mean of 3.38 and standard deviation of 0.40. Data shows that the respondents agreed with the self-explanatory content of self-instructional material in teaching Geometry for Grade 8 students. They noticed that the materials are written in plain language and in little pieces to make it easier for students to absorb the information by reading and following the directions. And as the respondents were undergoing through the module, they answered spontaneously without the help of their teacher to interpret or elaborate any instructions within the material.

2.2. In terms of Self- Contained

Table 3
Respondents' Perceived Characteristics of the SIM as Self-Contained

Indicators	Mean	SD	V.I.
1. The SIM does not require additional materials to learn the concepts/ subject matter	3.20	0.41	A
2. It is related to the nature of the 'curriculum' in distance education	3.40	0.50	A
3. The content is clearly detailed, leaving nothing to the imagination of the learner and interpretation	3.27	0.45	A
4. The content alone is sufficient for my learning	3.20	0.41	A
5. It provides enough exercises	3.40	0.50	A
Overall	**3.29**	**0.34**	**A**

Table 3 exhibits the perception of the respondents to characteristics of the self-instructional material as self-contained. It can be inferred that students have positive feedback with the self-contained material because they "agree" on all the indicators. They noticed that the materials are written in plain language and in little pieces to make it easier for students to absorb the information by reading and following the directions. As a whole, it gathers an average mean of 3.29 with a standard deviation of 0.34 which is interpreted as "Agree".

2.3. In terms of Self- Directed

Table 4
Respondents' Perceived Characteristics of the SIM as Self-Directed

Indicators	Mean	SD	V.I.
The Self-Instructional Material…			
1. provides necessary directions to the learners to study and progress	3.43	0.50	A
2. makes it easy to find what I want	3.33	0.48	A
3. provides guidance to the learners at every stage by providing necessary guidance, explanations, notes and suggestions	3.43	0.50	A
4. uses a variety of techniques including the use of hints, notes, graphics (icons) and explicit directions on how to do, what to do and what is expected of the learner	3.47	0.51	A
5. uses learning objectives, guidance in introduction, and a conversational style of writing text, instructions to do and how to answer the self-assessment question	3.50	0.51	SA
Overall	**3.43**	**0.41**	**A**

Table 4 displays the perceived characteristics of the material as self-directed. Indicator 5, "Uses learning objectives, guidance

in introduction, and a conversational style of writing text, instructions to do and how to answer the self-assessment question" has the highest mean of 3.50 and standard deviation of 0.51 which is interpreted as Strongly Agree. The other indicators all agree with an overall mean of 3.43 and standard deviation of 0.41. This shows that the respondents agreed with the self-directed content of self-instructional material. They study alone since they are distance learners. It's essential that self-learning materials are developed in a way that gives learners the information they need to study and progress. This is accomplished through the use of a range of approaches such as hints, notes, images (icons), and clear instructions on how to do, what to do, and what the learner should expect.

2.4. In terms of Self – Motivating

Table 5
Respondents' Perceived Characteristics of the SIM as Self-Motivating

Indicators *The Self-Instructional Material…*	Mean	SD	V.I.
1. creates interest and encourages the learners towards study and research	3.37	0.49	A
2. arouses curiosity, raise issues in the minds of the learners and motivate them to relate theoretical knowledge to real life situations	3.33	0.48	A
3. encourages the learners towards in-depth study	3.33	0.48	A
4. motivates them to question and reflect on their own experiences and practices	3.47	0.51	A
5. provides reinforcement on learning progress through the use of examples, illustrations from real-life, feedback on self-assessment questions, etc.	3.50	0.51	SA
Overall	**3.40**	**0.40**	**A**

Table 5 represents the perceived characteristics of the material as self-motivating. As indicated in the table, indicator 5 states that the material "Provide reinforcement on learning progress through the use of examples, illustrations from real-life, feedback on self-assessment questions, etc." has the highest mean of 3.50 and a standard deviation of 0.51 which is interpreted as Strongly Agree. The other indicators were all agreed by the respondents.

The overall mean of 3.40 and standard deviation of 0.40 which were interpreted as agree. Data shows that the respondents agreed on the criteria of self-motivating material for Grade 8 students. And, in the face-to-face education system, one of the key tasks of a teacher is to motivate and encourage students to study and research, which is exactly what they experienced.

2.5. In terms of Self - Evaluating

Table 6
Respondents' Perceived Characteristics of the SIM as Self-Evaluating

Indicators	Mean	SD	V.I.
1. The material lets me know how I am progressing in my study	3.40	0.50	A
2. It provides activities or self-assessment questions and their personalized feedback	3.37	0.49	A
3. It allows the students to evaluate themselves and learn from their action (correct/ incorrect)	3.43	0.50	A
4. It envisages or desires that the distance learners use the learning material in an active manner	3.50	0.51	SA
5. It gives learning feedback and offers chances to improve	3.57	0.50	SA
Overall	**3.45**	**0.37**	**A**

Meanwhile, Table 6 presents the perceived characteristics of the material as self-evaluating. Most of the indicators were agreed by the respondents and two indicators were strongly agreed by them. Indicator 5 "Gives learning feedback and offers chances to improve" received the highest mean score of 3.57 and sd of 0.50 which is interpreted as strongly agree. The overall mean is 3.45 and standard deviation of 0.37, implies that the respondent's perception on the characteristics of the material as self-evaluating is agreed by them. It is vital for distance learners to understand how they are going in their studies, especially because they are semi-permanently separated from their lecturers and peers.

3. Level of Lower Order Thinking Skills of the Students in the Diagnostic and Achievement Test in Remembering, Understanding and Applying

It is evident that in Tables 7, 8 and 9 the level of lower order thinking skills of the students in the Diagnostic test is mostly on the need improvement or developing level, but after being exposed to SIM most of them leveled up to the proficient and exemplary.

4. Significant Difference in the Cognitive Skill of Students in the Diagnostic Test and the Achievement Test as to remembering, understanding and applying

Tables 7, 8, and 9 present the respondents scores in the diagnostic and achievement test in remembering, understanding and applying. In remembering, from developing and need improvement, one of the students got a need improvement interpretation and the rest is from developing up to exemplary. In understanding and applying, during the diagnostic test, most of the respondents were in need improvement up to developing, and after completing the material most of them were proficient to exemplary. Thus, this tells us that there is significant difference in the cognitive skill of students in the diagnostic and the achievement test as to remembering, understanding and applying.

4.1. in terms of Remembering

Table 7
The Scores in the Diagnostic and Achievement Test in Lower Order Thinking Skills of the Respondents in terms of Remembering

	Diagnostic		Achievement		
Score	**f**	**%**	**f**	**%**	**Verbal Interpretation**
12 to 14	----	----	15	50.00	Exemplary
8 to 11	----	----	14	46.67	Proficient
4 to 7	16	53.33	----	----	Developing
3 & below	14	46.67	1	3.33	Need Improvement
Total	**30**	**100**	**30**	**100**	

Table 7 displays the scores in the diagnostic and achievement tests in lower order thinking skills of the respondents in terms of Remembering. The lower order thinking skills of the students during the diagnostic test is at needs improvement to developing levels. In these levels the students were not able to recall the concepts on Geometry. After exposing the students to the SIM, the level of their remembering skills as measure of lower order thinking skills is from proficient to exemplary. This indicates that the students were able to name the triangles, identify the corresponding sides and angles, locate the congruent segments, describe and define the meaning of SAS, ASA and SSS.

4.2. in terms of Understanding

Table 8
The Scores in the Diagnostic and Achievement Test in Lower Order Thinking Skills of the Respondents in terms of Understanding

	Diagnostic		Achievement		
Score	**f**	**%**	**f**	**%**	**Verbal Interpretation**
12 to 13	----	----	4	13.33	Exemplary
8 to 11	2	6.67	24	80.00	Proficient
4 to 7	16	53.33	2	6.67	Developing
3 & below	12	40.00	----	----	Need Improvement
Total	**30**	**100**	**30**	**100**	

Table 8 presents the scores in the diagnostic and achievement tests in lower order thinking skills of the respondents in terms of Understanding. The lower order thinking skills of the students during the diagnostic test is at needs improvement to proficient levels. In these levels most of the students were not able to make sense the concepts on Geometry. After exposing the students to the SIM, the level of their understanding skills as measure of lower order thinking skills is from developing to exemplary. Their performance improved because they constantly repeating their answers until they got a perfect score.

4.3. in terms of Applying

Table 9
The Scores in the Diagnostic and Achievement Test in Lower Order Thinking Skills of the Respondents in terms of Applying

	Diagnostic		Achievement		
Score	**f**	**%**	**F**	**%**	**Verbal Interpretation**
12 to 13	----	----	10	33.33	Exemplary
8 to 11	----	----	13	43.33	Proficient
4 to 7	11	36.67	7	23.33	Developing
3 & below	19	63.33	----	----	Need Improvement
Total	**30**	**100**	**30**	**100**	

Table 9 highlights the scores in the diagnostic and achievement tests in lower order thinking skills of the respondents in terms of Applying. On the result of the lower order thinking skills of the students during the diagnostic test is at needs improvement to developing levels. In these levels most of the students were not able to use info in a new (but similar) form on the concepts on Geometry. After exposing the students to the SIM, the level of their applying skills as measure of lower order thinking skills is from developing to exemplary. This means that the students were able to draw congruent triangles, apply and solve problems involving triangle congruence.

5. Diagnostic and Achievement Scores of the Respondents in Test of Dimensions of Lower Order Thinking Skill

Table 10
Difference in the Diagnostic and Achievement Scores of the Respondents in Test of Dimensions of Lower Order Thinking Skill

Lower Order Thinking Skills (LOTS)	Diagnostic		Achievement		t	df	Sig. (2-tailed)
	M	**SD**	**M**	**SD**			
Remembering	3.80	1.40	11.03	2.19	-13.404	29	0.000
Understanding	4.00	1.95	9.87	1.80	-13.618	29	0.000
Applying	3.17	1.56	9.73	2.45	-11.194	29	0.000

The table shows the test of difference in the diagnostic and achievement scores of the students in lower order thinking skills (lots).

In remembering, the mean in the diagnostic test is 3.80 with standard deviation of 1.40 while on the achievement test the mean is 11.03 and the standard deviation of 2.19. It has the t-value of -13.404 and p-value of 0.000 which tells us that there is a significant difference between the diagnostic test and achievement test as to remembering. This implies that the students had positively developed their remembering skills in Geometry after being exposed to self-instructional material. They were able to familiarize themselves with Geometric terms like the points, lines, segments, angles, corresponding and congruent parts of a triangle.

With regards to understanding, the mean in the diagnostic test is 4.00 with standard deviation of 1.95 while on the achievement test the mean is 9.87 and the standard deviation of 1.80. With a t-value of -13.618 and p-value of 0.000, this shows that there is a significant difference between the diagnostic test and achievement test as to understanding. This implies that the students had positively developed their understanding skills in Geometry after answering self-instructional material. They were able to discuss, explain and interpret Geometric terms better.

As to applying, the mean in the diagnostic test is 3.17 with standard deviation of 1.56 while on the achievement test the mean is 9.73 and the standard deviation of 2.45. With a t-value of -11.194 and a p-value of 0.000, this shows that there is a significant difference between the diagnostic test and achievement test as to applying. This implies that the students had positively developed their application skills in Geometry after having a series of teaching and learning activities. This is means of drawing congruent triangles and solving problems involving triangle congruence. The data above imply that in general, the student's participants developed essential skills positively and this means that the series of learning sessions that the students' participants had attended helped improve their cognitive skills. The outcome of the study has the same result with the study of Shim (2017), that there is a positive correlation between the outcomes of Mathematics diagnostic tests and students' Math achievement.

6. Relationship between the Respondents' Perception on Lessons using Self-Instruction Material and their Achievement Test Scores

There is a significant relationship between the respondents' perception on lessons using Self-Instructional Material and their Achievement Test scores which is between the self-motivating and applying.

Table 11
Relationship between the Perceived Characteristics of the Self-Instructional Modules and the Lower Order Thinking Skills

Characteristics of Self-Instructional Materials	Lower Order Thinking Skills		
	Remembering	Understanding	Applying
Feedback	0.230	0.222	0.326
Self-Explanatory	0.199	0.267	0.249
Self-Contained	0.253	0.256	0.351
Self-Directed	0.244	0.119	0.242
Self-Motivating	0.312	0.238	.426*
Self-Evaluating	0.300	0.236	0.219

. Correlation is significant at the 0.05 level (2-tailed).

Table 11 shows the relationship between the perceived characteristics of the Self-Instructional Modules and the Lower Order Thinking Skills of the Respondents tested at 0.05 level of significance. From the table, it can be seen that Self-motivating is significantly related to Applying with 0.426 correlation at the 0.05 level (2-tailed) and the rest is not significantly related.

This result supports the study of Sikhwari (2014), wherein there is significant correlations between self-concept, motivation and academic achievement of students. For if one is motivated to learn, then one will strive his best to study hard until one is able to apply all the learnings. As a result, one will have a good score in the achievement test.

CONCLUSIONS

Based on the findings of the study, the following are concluded:

1. There is no difference in the lower order thinking skill of students in the Diagnostic Test and the Achievement Test as to: remembering; understanding; and applying is not supported. This means that the use of the self-instructional material helps improve the lower order thinking skills of the students.
2. There is no significant relationship between the respondents' perception on lessons using self-instructional material and their achievement test scores is partially supported. This suggests that the more the students find the SIM to be self-motivating the better they apply the concepts as a measure of their lower order thinking skill

RECOMMENDATIONS

Based on the above findings and conclusions, the following recommendations are given:

1. Since this study proved that the SIM is effective in enhancing the lower order thinking skills of the students, it is

encouraged that the teachers may adopt this material in teaching Geometry (Triangle Congruence).

2. Since the extent on the self-motivating characteristics of SIM is significantly related to the applying skills of the students, then teacher may consider the self-motivating characteristic of the learning materials when developing one.
3. Since this study proved that the SIM is effective in enhancing the lower order thinking skills of the students, it is encouraged that the students, may repeatedly use the material for them to enjoy while learning Geometry lessons.
4. Since there is a significant relationship between self-motivating and applying, further improvement of the self-instructional materials may be considered such as creating video lessons to be given to the students together with the material to strengthen their knowledge on the subject matter or include more eye-catchy figures for the students to enjoy the material during the learning process.

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