

Teacher education students' assessment of modular distance learning during the COVID-19 pandemic

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Abstract

This research investigated the teacher education students' assessment of modular distance learning (MDL) during the coronavirus disease 2019 pandemic using a descriptive comparative research design. There were 295 respondents who are taking up Bachelor of Secondary Education major in Mathematics in a state university. The respondents were identified using stratified random sampling. They answered a four-part survey questionnaire that assessed their profile, perception, benefits and challenges they encountered while learning through MDL. The results showed that they have a positive perception of MDL. At the same time, they found this modality to be beneficial. However, they often encountered the challenges that MDL brings. Moreover, there is a significant difference in the students' perception, benefits and challenges that MDL brings when grouped according to their year level. Thus, it is recommended that school administrators and teachers consider students' diversity relative to their needs and provide other instructional support while students are engaging in MDL.

Keywords: Benefits, challenges, modular distance learning, perception, teacher education students

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1. Introduction

The coronavirus disease 2019 (COVID-19) pandemic has significantly changed the educational landscape worldwide (Tria, 2020) because of school shutdowns and the cancellation of face-to-face classes. Because of this, traditional teaching migrated to other forms of learning modality. The most commonly used modality is modular distance learning (MDL), which is recognised in many countries, including Western and Asian countries (Jayani, 2021), as means to implement continuous learning despite the pandemic (Dangle & Sumaoang, 2020).

The Philippines is one of the countries that adopts the MDL approach in its schools and universities to address these challenges. MDL is a learning delivery mode wherein the lesson is delivered through self-learning modules (SLMs) provided to the students, either printed or digitised (Magsambol, 2020; Salamuddin, 2021). This modality has become an increasingly significant part of the Philippine educational system. It has been necessary due to its practicality during this time of the pandemic (Pinar, 2021).

In MDL, students are left alone while studying the module's contents, which could challenge them, particularly in the subjects they consider challenging to learn. Students often consider mathematics a complex subject despite their awareness of its application in life (Malik, 2012; Peteros et al., 2022a, 2022b). Nonetheless, students who like the subject tend to explore further if they find that their understanding of the discussion in the module is insufficient. This situation allows them to learn beyond what is presented in the module. Hence, students can improve their mathematical understanding of the material given to them (Jazim & Rahmawati, 2017). MDL in mathematics can engage students with high academic ability more in the module's content because they have a higher study orientation than those who struggle in learning math (Guinocor et al., 2019). On the other hand, this can also help less motivated students and those with a lack of mathematical background to learn independently (Abramovitz et al., 2012).

Teacher education students who major in mathematics are expected to have lesser challenges in learning the subject due to their high interest in the subject. Thus, the instructors will make fewer efforts to motivate them to learn. However, interest to study alone will not suffice when it comes to learning. That is why other factors must also be considered. Moreover, the students' interests can also change in some circumstances, particularly when their expectations about the subject are not met. The shift in the learning modality can be a factor that could affect them. Face-to-face learning offers different opportunities for students to learn from the subject (Mather & Sarkans, 2018). However, MDL can also offer benefits to the students which face-to-face learning may not be able to offer. The presence of the instructors while students are learning can be a significant factor in how the students could learn the subject which is not offered in MDL.

The teacher education students taking up Bachelor of Secondary Education major in mathematics enrolled in a state university were provided with SLMs through the online platform created by their math instructors at the start of the semester. Discussion, activities and exams are provided through the SLMs using this platform. Although this modality is new to the students (Tria, 2020), they were able to adapt to this new mode of learning because of their positive feedback during consultation regarding their experiences with the modality. However, teachers observed that some students were late in submitting their outputs while others were missing submissions. In such cases, teachers need to call the student's attention so that they can comply with the outputs required in the modules. It

has become a regular practice for teachers to monitor students' submissions and follow-up with non-compliant students. When students were asked why they were late or did not submit their outputs, varied reasons were presented. Here, the issues on the promptness in completing assignments and time management (Guinocor et al., 2019) can be looked into to understand better why some students fail to comply. Due to these circumstances, it is imperative to assess how the students think and feel about this modality, the benefits this modality brings to them and the challenges they encountered while learning through this modality so that university administrators and instructors can provide relevant action to the issues and concerns that MDL brings to the students.

1.1. Conceptual framework

In this section, the concepts of the MDL approach of instruction are presented to provide a clear context for what this study is trying to explore.

Distance learning is a new method of the educational system which people adopt because this is different from the traditional educational system. This is one of the methods that conveys information to learners with economic flexibility in terms of time and place compared to other types of the educational system (Lassoued et al., 2020). This method is usually adopted when students cannot attend physically, particularly during the COVID-19 pandemic. This is the most appropriate learning mode to ensure the continuity of education. There are different types of distance learning, such as online learning, blended learning and MDL (Anzaldo, 2021). MDL is most commonly applied among these three modalities in schools and universities worldwide (Jayani, 2021).

MDL is a learning delivery mode in which learners are provided with SLM in the form of printed or digital format (Anthony, 2020) with individualised instruction to perform the required tasks alone. Salandanan (2001, as cited by Lim, 2016) defined a module as a self-contained, independent unit of instruction designed to meet the specific learning objectives of the subject. It includes all instructions necessary for the learners to perform the expected task required in the lesson's content, including the list of resources needed during the performance of the task. It is self-directed and self-pacing, where learners progress through the learning tasks at their rate.

Moreover, MDL is also a form of asynchronous learning where students can access learning materials at their convenience of time and location. Instructors can use technology so that students can access these materials more flexibly to enhance their learning experience (Moore, 2016). Furthermore, Ali et al. (2010) stressed that modular instruction are designed to meet students' needs by considering what the universities want to deliver and what the students need to know, which can adequately provide the quality of students' learning, despite its difference with traditional method in terms of the delivery of instruction. However, prolonged use of distance learning could decrease students' motivation to learn, cause loss of contact with teachers and classmates, cause isolation and reduce students' engagement (Coman et al., 2020).

In addition, the concepts and ideas about modules used in distance learning should be clearly emphasised, meaning its content should be grammatically correct, precise and with specific instructions for the learning tasks. With these ideas, the modules can be an effective tool in the learning process (Yazon, 2018). Moreover, the modular approach provides flexibility among teachers and students regarding distance teaching and learning (Sejpal, 2013). However, teachers need to

exert more effort in developing modules that support students' learning, especially mathematics. Thus, there is a need to prepare this material intelligently to serve its purpose to the students.

1.2. Related research

This section explores the relevant research conducted on MDL which serves as the foundation for the conceptualisation of this paper.

Aksan (2021) explored the perception of 178 grade 11 Science, Technology, Engineering, and Mathematics (STEM) students enrolled in Mindanao State University-Sulu Senior High School in the Philippines using purposive random sampling. The results revealed that students had positive perceptions of MDL in mathematics, encountering only a few challenges in learning through this modality. Students also claimed that it had a positive effect on their performance in math. Moreover, they had different perceptions when grouped by gender but no difference when grouped by age. Furthermore, no significant relationship was found between the students' perception and their academic performance in mathematics. In addition, Salamuddin (2021) investigated the students' perceptions in the same university regarding their experiences during the face-to-face learning approach and MDL approach. The results revealed that students favoured more on their experiences during the face-to-face learning approach over the MDL approach. They also believed that there are factors that could affect their learning while engaging in these two modalities. However, Peteros et al. (2022a, 2022b) found that the SLM did not decrease that students' ability to learn away from school.

Bordeos (2021) explored the 100 grade 10 students' attitudes towards implementing the MDL and their perceptions of its effects on their learning and engagement compared to face-to-face learning. The results showed that students perceived that MDL could serve as an alternative learning modality during the new normal teaching despite their challenges. Moreover, students showed a negative attitude towards MDL. They claimed that this has a negative effect on their learning and motivation. However, they consider MDL as an effective method for flexible learning. This is supported by the study of Avila et al. (2021), which found that students perceived distance learning as excellent and essential. They also reported that their university was moderately successful in implementing the modality. At the same time, their professors were moderately helpful in providing support and understanding while engaging in this learning arrangement.

Talimodao and Madrigal (2021) assessed the 377 public elementary school teachers' perception of the quality and implementation of the printed modular distance learning (PMDL). The results revealed that teachers perceived that PMDL was consistently excellent, indicating its adherence to the national standards set by the governing agency. However, teachers from small and medium schools reportedly assessed PMDL to be of low quality. They encountered challenges in assessments, activities, outputs, parents' incapacity, inconsistent participation and compliance. However, Yayen and Labaria (2021) found out in their study that teachers had a moderate level of perception, confidence, satisfaction and experiences in MDL. They further recommended having minor changes in the modules to be more effective for both teachers and pupils.

Trovela(2021) investigated the parents and senior high school students' perceptions of MDL using qualitative research design. Through analysis of the data, it was found that MDL shows effectiveness while even facing different challenges, such as students' lack of time management skills, parents' lack

of knowledge on the topics in the module, struggles to learn independently, limited resources that aid learning and preparedness on the MDL implementation.

Peregrino et al. (2021) conducted a study to evaluate the efficacy of MDL in science as viewed by the teachers and students. The results revealed that teachers and students viewed the MDL as somewhat effective. Moreover, most students encountered challenges. Some modules are difficult to read and answer because of their tiny fonts. Some pages are not correctly arranged. More than half of the teachers encountered difficulty in reproducing modules because they did not have a printer. The results further revealed no significant difference between the perception of students and teachers on the level of effectiveness of modular distance modality of learning science. Similarly, Dangle and Samaoang (2020) conducted a study to determine the challenges encountered, opinions and recommendations of teachers, parents and students in implementing MDL. Through data analysis, it was found that the participants encountered challenges in terms of resources, preparedness and communication.

1.3. Purpose of the study

This research investigates the teacher education students' assessment of MDL during the COVID-19 pandemic. Specifically, it answered the following queries:

1. What is the level of perception of the students towards MDL?
2. What is the extent of benefits that MDL brings to the students?
3. What is the extent of the challenges students encountered while engaging in MDL?
4. When grouped according to their year level, is there a significant difference in the students' assessment, based on their perception of MDL, the benefits of MDL and the challenges they encountered while engaging in MDL?

2. Methods and Materials

This section presents the research method, participants, data collection tools, data collection process and analysis.

2.1. Research method

This research employed a comparative research design to investigate the students' assessment of MDL. Comparative research is a type of quantitative research design that aims to compare two or more groups to determine similarities and differences among them (Richardson, 2018). The students were grouped according to their year level in order to test if there were differences in their assessment of MDL.

2.2. Participants

This research was conducted at a state university in Cebu City, Philippines. Students from the College of Education of the university taking up Bachelor of Secondary Education major in mathematics participated voluntarily in providing the data needed in this study. Table 1 shows the profile of the students in terms of their age, gender and year level.

Table 1. Profile of the students

| Profile | <i>f</i> | % |
|-----------------|----------|--------|
| Gender | | |
| Male | 55 | 18.64 |
| Female | 240 | 81.36 |
| Total | 295 | 100.00 |
| Age (in years) | | |
| 22 and above | 75 | 25.42 |
| 20–21 | 132 | 44.75 |
| 18–19 | 88 | 29.83 |
| Total | 295 | 100.00 |
| Year level | | |
| Fourth year | 55 | 18.64 |
| Third year | 85 | 28.81 |
| Second year | 44 | 14.92 |
| First year | 111 | 37.63 |
| Total | 295 | 100.00 |

It can be gleaned from Table 1 that most of the respondents were female. Moreover, the majority of them were in the age range from 20 to 21 years, while the first-year students had the highest number of participants. The first-year students of the university have the largest population, which is expected to reduce as they move to the next year due to possible dropouts.

2.3. Data collection tools

An adapted and modified questionnaire from Aksan (2021) was used to investigate the students' assessment of MDL. It has four parts, namely the profile of the respondents, perception towards MDL with 10 indicators, benefits of MDL with 14 indicators and challenges of MDL with 20 indicators. The students have to rate the statements based on how they perceived them to be true to themselves using a 4-point Likert scale, namely 4 = strongly agree, 3= agree, 2 = disagree and 1 = strongly disagree. There were modifications to the terms used in the instrument to fit the context of the respondents. Hence, a pilot testing was conducted on 10 respondents. Cronbach's alpha was used to assess the internal consistency of statements measuring the construct (Tavakol & Dennick, 2011). An acceptable value of Cronbach's alpha that is greater than 0.70 was observed to attain the instrument's reliability (Taber, 2018). The pilot test results revealed high reliability of the three constructs measured, namely perception (0.763), benefits (0.864) and challenges (0.932). Furthermore, the respondents were chosen using stratified random sampling in which their year level was used as the stratum. This sampling technique is justified by the objectives of the study, which aimed to compare the students' assessment of MDL.

2.4. Data collection process

The data gathering was conducted using an electronically generated questionnaire which was carried out after the first semester of the school year of 2021–2022. The subject teachers provided the link to the questionnaire to students so that they could access the instrument. The respondents were given one week to find time to answer the questionnaire. The data were retrieved through the spreadsheet created in the online platform. The researcher handled the gathered data with utmost confidentiality.

2.5. Data analysis

The data gathered were sorted, summarised, tallied and treated using descriptive and inferential statistics. Frequency count and percentage were used to treat the profile of the respondents. The weighted mean was used to describe the level of the respondents' assessment of MDL. Analysis of variances (ANOVA) was used to test the difference in the respondents' assessment when they were grouped according to their year level.

3. Results

This section presents the data gathered from the respondents, which involves their assessment of MDL and the test of the difference between the three variables.

Table 2 presents the data on the students' perception of MDL. It can be observed that the weighted mean for all the statements is 2.70, which indicate that the students have a positive perception of MDL.

Table 2. Perception level of the students towards MDL

| S/N | Indicators | WM | Verbal description |
|-------------------------|---|------|--------------------|
| 1 | In modular learning, I have much time to answer the activities. | 3.24 | Positive |
| 2 | Students can be guided by friends, parents and relatives in their activities. | 2.95 | Positive |
| 3 | Students are more active and self-directed. | 2.79 | Positive |
| 4 | Modular learning helps me to explore mathematics. | 2.99 | Positive |
| 5 | It is more flexible than other approaches in mathematics. | 2.75 | Positive |
| 6 | I am more comfortable answering the activity in math on my own using modules. | 2.77 | Positive |
| 7 | I prefer modular learning in learning mathematics. | 2.35 | Negative |
| 8 | It is cheaper compared to face-to-face learning. | 2.85 | Positive |
| 9 | Students can easily answer the problems in mathematics. | 2.35 | Negative |
| 10 | I prefer modular learning rather than traditional face-to-face instructions. | 1.99 | Negative |
| Aggregate weighted mean | | 2.70 | Positive |

Legend: 3.25–4.00 = Very positive; 2.50–3.24 = Positive; 1.75–2.49 = Negative; 1.00–1.74 = Very negative.

Table 3 shows the data on the students' perception of MDL in terms of its benefits to them. The weighted mean of 2.89 indicates that students perceived that MDL is beneficial to them.

Table 3. Benefits of MDL

| S/N | Indicators | WM | Verbal description |
|-----|--|------|--------------------|
| 1 | It helps the students to express their ideas. | 2.78 | Beneficial |
| 2 | It saves money for the students to spend on travel, lodging and transportation. | 3.47 | Highly beneficial |
| 3 | This can help the students to read a lot about the topics from different sources. | 3.23 | Beneficial |
| 4 | It allows students to progress their thinking ability in solving mathematics problems. | 3.09 | Beneficial |
| 5 | They can manage their time by answering all the activities, reading lectures and doing other related schoolwork. | 3.15 | Beneficial |
| 6 | It saves time to answer the activities. | 3.03 | Beneficial |
| 7 | With this approach, the students have much time for self-meditation and self-reflection. | 3.08 | Beneficial |
| 8 | It builds the students' self-confidence. | 2.62 | Beneficial |
| 9 | The students can get good grades in mathematics. | 2.71 | Beneficial |
| 10 | The students can answer well without pressure. | 2.76 | Beneficial |
| 11 | This approach improves the students' ability to learn mathematics. | 2.74 | Beneficial |
| 12 | It helps the students learn better. | 2.61 | Beneficial |
| 13 | It helps the students understand the math concepts better. | 2.57 | Beneficial |
| 14 | It is effective in learning mathematics. | 2.56 | Beneficial |
| | Aggregate weighted mean | 2.89 | Beneficial |

Legend: 3.25–4.00 = Highly beneficial; 2.50–3.24 = Beneficial; 1.75–2.49 = Less beneficial; 1.00–1.74 = Not beneficial.

Table 4 presents the data on the challenges students encountered while learning through MDL. The statements describing their challenges had an aggregate weighted mean of 2.75, meaning they often encountered challenges while learning through this modality.

Table 4. Challenges in MDL

| S/N | Indicators | WM | Verbal description |
|-----|---|------|--------------------|
| 1 | Students require self-motivation in answering the activities in math. | 3.32 | Always |
| 2 | Students cannot easily access their teacher should they need an explanation for a particular topic. | 2.91 | Often |
| 3 | Students have little support from their teachers in learning math. | 2.67 | Often |
| 4 | Modular learning is stressful. | 2.79 | Often |
| 5 | Some parents cannot guide their children in | 3.35 | Always |

| | | | |
|----|--|------|--------|
| | their lessons in the module. | | |
| 6 | Modular learning has minimal social interaction. | 3.18 | Often |
| 7 | There is a feeling of isolation on the part of the students. | 3.07 | Often |
| 8 | It makes the student's brain drain. | 2.90 | Often |
| 9 | Students can hardly understand what they are reading in their modules. | 2.86 | Often |
| 10 | Students can hardly solve the activities in the modules. | 2.76 | Often |
| 11 | In answering the activities, it can lead to students' depression. | 2.45 | Seldom |
| 12 | Students can be mentally sick. | 2.62 | Often |
| 13 | This approach affects the students' health. | 2.62 | Often |
| 14 | Students are going to be lazy to solve the problems. | 2.74 | Often |
| 15 | Students cannot cope with the discussion. | 2.71 | Often |
| 16 | It is boring, painful and not interesting. | 2.28 | Seldom |
| 17 | Students have much time to do other things than to answer math activities. | 2.65 | Often |
| 18 | Parents need to hire a tutor to help their children. | 2.09 | Seldom |
| 19 | Students can lose their confidence. | 2.58 | Often |
| 20 | Students can rely on their parents, siblings, friends and others to answer their activities. | 2.40 | Seldom |
| | Aggregate Weighted Mean | 2.75 | Often |

Legend: 3.25–4.00 = Always; 2.50–3.24 = Often; 1.75–2.49 = Seldom; 1.00–1.74 = Never.

Table 5 shows the test of significant difference in students' perception of MDL based on their year level. One-way ANOVA showed a significant difference among the year levels of the students, $F(3,291)=5.067$, $p=0.002$, in their perception of MDL.

Table 5. Significant difference in the perceptions of the students based on their year level

| Source of variation | Sum of squares | df | Mean square | F-value | p-value | Result |
|---------------------|----------------|-----|-------------|---------|---------|-------------|
| Between groups | 320.002 | 3 | 106.667 | 5.067** | 0.002 | Significant |
| Within groups | 6,125.659 | 291 | 21.050 | | | |
| Total | 6,445.661 | 294 | | | | |

**Significant at $p < 0.01$.

As illustrated in Table 6, one-way ANOVA showed an overall significant difference among the year levels of the students, $F(3,291)=6.486$, $p < 0.01$, on the benefits of MDL.

Table 6. Significant difference in the benefits based on their year level

| Source of variation | Sum of squares | df | Mean square | F-value | p-value | Result |
|---------------------|----------------|-----|-------------|---------|---------|-------------|
| Between groups | 942.971 | 3 | 314.324 | 6.486** | 0.00 | Significant |
| Within groups | 14,102.744 | 291 | 48.463 | | | |
| Total | 15,045.715 | 294 | | | | |

**Significant at $p < 0.01$.

Table 7 presents the test of significant differences in the challenges encountered by the students in MDL. As reflected in the table, one-way ANOVA showed an overall significant difference among the

Table 7. Significant difference in the benefits based on their year level

| Source of variation | Sum of squares | df | Mean square | F-value | p-value | Result |
|---------------------|----------------|-----|-------------|---------|---------|-------------|
| Between groups | 2,212.788 | 3 | 737.596 | 9.284** | 0.00 | Significant |
| Within groups | 23,120.114 | 291 | 79.451 | | | |
| Total | 25,332.902 | 294 | | | | |

**Significant at $p < 0.01$.

year levels of the students, $F(3,291)=9.284$, $p < 0.01$, on the challenges they encounter in MDL. The results imply that students have different challenges when learning the lessons through MDL. This can be relevant to the difference in the complexity of the subject's lessons per year level.

4. Discussion

The data gathered showed that students have a generally positive perception of MDL during the COVID-19 pandemic. However, if students have a choice, they will not prefer learning mathematics through this modality. They still believe that face-to-face learning is a better modality than MDL. Students seemed to adapt to MDL because of their positive assessment of this modality. This can also be attributed to the flexibility of the students' schedules when complying with the learning tasks in the module (Sejpal, 2013). Students can choose when and where they will perform the required tasks and at their own pace. Furthermore, MDL encourages independent learning, allowing students to explore topics beyond the lessons' scope for self-enrichment (De Vera et al., 2022). Nevertheless, despite the advantages that MDL brings to the students, they are still convinced that face-to-face learning provides more opportunities for students' learning. However, MDL is still favourable. It can be widely utilised at various education levels when physical reporting to school is impossible (Sadiq & Zamir, 2014).

The students also perceived that MDL is beneficial for them because it provides them with opportunities to explore the subject in any way and anytime they like, giving them the chance to learn more effectively (Yazon, 2018). It gives them the chance to have autonomy in learning aside from being economical because they have lesser expenses in their studies than face-to-face learning (Trovela, 2021). Self-directed learning is evident in this modality because students have complete control of their school tasks. However, students need to be more accurate and disciplined in planning their tasks otherwise they would have problems with prompt submission of outputs.

Not all the time MDL gives comfort to the students. There are aspects in this modality wherein students struggle to comply with the subject's requirements. They often encounter challenges while engaging in MDL in motivating themselves to perform the learning tasks required by the modules. Students experience these struggles because they do not have their classmates around to cheer them up when they feel tired of what they are doing, aside from their parents or family members' inability to guide them with the lessons in the module. It has to be considered that these students used to learn with their classmates, and the atmosphere of competition and support from each other can be felt when learning occurs inside the classroom. In some cases, students can feel isolated, which could lead to losing their confidence and motivation. On the other hand, universities need to establish strategies and approaches to maintain the mental balance among their students (Moralista & Oducado, 2020).

The test of the hypothesis on the difference in students' perceptions of MDL showed a significant result. This implies that students' perception of the modality differs considering their year level. This difference in their perception can be linked to the complexity of the lessons that students deal with. Students in the higher levels do not like to settle into learning math alone because of the complex concepts and ideas that the lesson presents to them. On the other hand, students from the lower year level can still learn by themselves because of the lesser complexity of the lessons in their modules. As the students move to the higher level, the more abstract the math concepts they deal with, so they need the teacher's assistance while learning the lessons. With MDL, they have to do it alone. Thus, it could lead to their negative perception of the modality. These students feel uncomfortable learning their lessons due to a lack of teacher guidance and feedback about their performance (Salamuddin, 2021).

The students' assessment of the benefits of MDL to them is consistent with the results on their perceptions of MDL. The results showed that they have a different perception of the benefits of MDL when grouped by year level. The students who feel more comfortable while learning this modality can feel the modality's benefit. Otherwise, they can rarely feel its benefits while learning math. In this sense, students assessed the benefits of MDL based on the comfort and advantages that the modality brings to them. Suppose the students have a hard time engaging with the modality, in that case, they will consider the challenges they experience rather than the good aspect that MDL can provide.

Lastly, there was a significant difference in the challenges students encountered when grouped according to their year level. These results confirmed the two results on the students' perception of MDL and their assessment of the benefits of the modality. The different challenges they encounter with MDL explain why their perception of MDL and assessment of its benefits differ. Every year level encounters different challenges in their math lessons, so they think differently about the modality (Bordeos, 2021).

5. Conclusion and Recommendations

MDL is the most common learning mode during the COVID-19 pandemic, which needs to be assessed from different views to enhance its implementation and ensure its effectiveness in students' learning development. This study focused on the assessment of MDL based on the views of teacher education students taking up Bachelor of Secondary Education major in mathematics. The results revealed that students have positive views on MDL, an acceptable modality when face-to-face learning is not

possible. They consider this modality beneficial, despite the challenges they often encounter while learning the subject. It is also noteworthy that students differ in their perception of MDL, its benefits and the challenges they experienced with the modality. The differences in their perception can be attributed to the lessons in their modules. The lesson's difficulty is dependent on the topics that the modules provide to the students, wherein students in the higher level are expected to learn more abstract concepts than those in the lower levels. With these ideas, learning experiences through MDL also vary because there are lessons that students need assistance from the teacher, particularly on abstract concepts and ideas; however, they cannot do that with the modality. Hence, it is recommended that school administrators and teachers consider students' diversity relative to their needs while engaging in MDL. Math subjects with more complex lessons should be provided with instructional support so that students' difficulty in understanding the contents of the modules can be reinforced.

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