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## Printing out Loud: Perceptions of Teachers on Print Form of Modular Instruction amid COVID-19 Crisis

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**Abstract:** The COVID-19 crisis impaired the educational systems all over the world. Within the context of developing countries characterized by structural challenges, a remote instructional modality through low media technology is adopted to continue education amidst the virulent time. This study aimed to describe the perceptions of the teachers on the print form of modular instruction. Using parallel mixed methods research, it involved 474 teachers in the Philippines. The data were treated using descriptive statistics and thematic analysis. The converged results showed that print form of modular instruction promotes holistic parent involvement in child learning; develops independence in learning; suits learners with poor learning resources; allows flexibility for learners to work at their pace; ensures safe modality from health risks; and promotes education continuity despite pandemic. However, it raises issues on validity of learning assessment; presents difficulty in delivering abstract and practical contents; does not support retention and permanence of learning; demands lots of resources to produce materials; limits quality of teaching and learning process; and requires independent reading skill to succeed in learning. Based on these results, recommendations are offered at the end of the paper.

**Keywords:** perception, teachers, print form, modular instruction, emergency remote education

### Highlights

What is already known about this topic:

- With COVID-19 crisis, teachers pivot from the traditional face-to-face to more secure teaching delivery approaches.
- The Philippine educational continuity plan stresses adaption of print form of modular instruction.

What this paper contributes:

- This study contributes to the body of research on the perceptions regarding the print form of modular instruction.
- It also takes multiple methods of looking into these perceptions to address apparently limited single method.

Implications for theory, practice and/or policy:

- It is so far the first to converge quantitative and qualitative data sets from a considerably large sample to gain a wider perspective on the subject of interest.
- This research stresses the importance of valid learning assessment and the role of parents in safeguarding it.



## Introduction

The COVID-19 pandemic brought disruptions to schooling across the world. It has a severe impact on education, urging actions from stakeholders, especially teachers who initially found themselves in an extraordinary educational crisis and have to adapt to the new normal (Bozkurt et al, 2022). As schools navigate through a new period of fears, worries, and uncertainties, the teachers are required to experimentally learn and pivot from the traditional face-to-face instructional methods to feasible and secure teaching delivery approaches using different media technologies (Cahapay & Anoba, 2021).

As a response to this situation, emergency remote education was collectively adapted. Hodges et al. (2020) defined it as a branch of distance education characterized by a temporary change in the delivery of instruction caused by the sudden occurrence of a crisis. It may include several practices such as online teaching, remote learning, blended learning, and mobile learning for which the teachers had to adapt where they probably have no training (Schleicher, 2020). Teachers are urged to make use of emergency remote education and prepare different learning delivery modalities to ensure that the students are engaged and can continue with their learning despite the situation (World Bank, 2020).

In the context of the Philippines, through the Department of Education Order No. 012 series of 2020, basic education was directed to adopt the Basic Education Learning Continuity Plan. With special attention to the resources of the community, it underscores equity considerations, urging the teachers to adapt the most suitable modalities based on the structural capacity of the learners (Department of Education, 2020). Three types of modalities recommended are the online instruction, modular instruction, and television- and radio- based instruction (Llego, 2020; Cahapay, 2021).

Modular instruction is an approach that consists of different components that are self-contained, systematically prepared, and well-defined (Sejpal, 2013) to address the learning needs of the learners. One way that modular instruction may be developed is through the traditional textual approach in which the learners acquire knowledge through carefully written lessons produced in print form (Quiroz et al., 2015). This print form of the modular instruction is reported to be the most favored form for many learners (Bernardo, 2020; Magsambol, 2020), especially in technologically challenged countries, as it appears more economically practical compared to the computer-assisted form.

A typical reference to the perception of modular instruction in the field observably always pertains to the computer-assisted form (e.g., see Sadiq & Zamir, 2014; Dejene & Chen, 2019). A body of research on the perceptions regarding the print form, especially from developing countries, has recently emerged (e.g., see Dangle & Sumaoang, 2020; Castroverde & Acala, 2021; Damao & Nabalawag, 2021; Talimodao & Madrigal, 2021). Given these studies, it can be noted, however, that their methods of deriving such perceptions seem limited to a single method which may be prone to a restricted perspective.

As suggested by Bond (2021), research in the COVID-19 pandemic must explore the experiences of vulnerable populations and include all information of study designs. Describing the perceptions of the teachers on the print form of modular instruction derived from mixed methods is a significant endeavor to understand such an emerging practice in emergency remote education in a more comprehensive perspective. It will offer theoretical and practical insights into the features of a practical media technology used to deliver instruction in contexts where the structural challenges are prevalent.

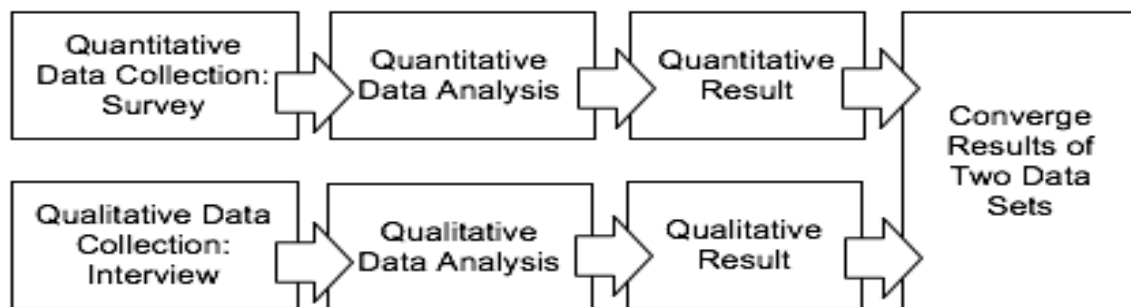
Considering these realities, this research was designed with an overall objective describe the perceptions of the teachers on an instructional media technology called print form of modular instruction.

## Methodology

### Research Design

This study employed a parallel mixed methods research design that seeks “to obtain different but complementary data on the same topic” (Morse, 1991, p. 122). Drawing from multiple data taken at the same time, the main purpose of this research design is to better grasp the problem. It appears to address the intent of this study which is to comprehensively describe the perceptions of the teachers on the print form of modular instruction. Figure 1 shows the research design of this study.

Figure 1. Research design of this study



### Sample

The respondents of this research consist of 1065 K to 12 teachers employed in different public and private schools in Region XII, Mindanao, Philippines. They were selected based on the primary criterion that they teach using the print form of modular instruction. They were further included regardless of age, gender, marital status, monthly income, and educational attainment. Table 1 shows the summary of sample characteristics.

Table 1. Summary of sample characteristics.

| Sample Characteristics       |                        | n   | %    |
|------------------------------|------------------------|-----|------|
| Gender                       | Female                 | 375 | 79.1 |
|                              | Male                   | 99  | 20.9 |
| Age                          | 34 years old and below | 284 | 59.9 |
|                              | 35 to 44 years old     | 110 | 23.2 |
|                              | 45 years old and above | 80  | 16.9 |
| Type of School Employed      | Private                | 143 | 30.2 |
|                              | Public                 | 331 | 69.8 |
| Level of School Assigned     | Elementary             | 343 | 72.4 |
|                              | Secondary              | 131 | 27.6 |
| Years of Teaching Experience | 0-10 years             | 347 | 73.2 |
|                              | 11-20 years            | 84  | 17.7 |
|                              | 21 years and above     | 43  | 9.1  |

### Instrument

This research used two tailored instruments to gather the needed quantitative data and qualitative data. They were designed by the researchers based on related literature, piloted to selected teachers in the field, and organized into one master online survey instrument.

The first instrument is a close-ended survey tool used to collect quantitative data on the perceptions of the teachers on the print form of modular instruction. It consists of two sections. The first section asked them to tick the reasons for their agreement while the second section for their disagreement with the print form of modular instruction.

On the other hand, an open-ended survey tool intended to gather qualitative information on the perceptions of the teachers on the print form of modular instruction. Specifically, the two key questions. These questions revolved around explanations on the advantages and disadvantages of the print form of modular instruction respectively.

### Data Collection

The data collection for this research ran from February 1 to 28, 2022 through Google Forms. Before accessing the main part of the structured online survey questionnaire, the respondents were presented to a first layer that articulated the purpose of the research, the process for completing the survey, and ethical considerations. The names of the researchers were provided at the bottom. Then, the main part of the online survey followed. All the responses were automatically recorded. The researchers electronically saved the data.

### Data Analysis

The quantitative data gathered for this study were analyzed using descriptive statistics such as frequency count, percentage rate, and weighted mean. Then, graphs were used to visually present the results. On the other hand, the qualitative data were subjected to thematic analysis. It is the systematic process of coding, examining meaning, and provision of a description of the social reality through the creation of a theme (Berg & Latin, 2008). The theme is the main product of the results of the analysis.

In the end, both the quantitative data and qualitative data were converged. The data were analyzed against each other to obtain a comprehensive view of the perceptions of the teachers on the print form of modular instruction.

## Results

### Quantitative Results

This study determined the reasons of the teachers for agreeing and disagreeing on the print form of modular instruction. The data were gathered through a quantitative survey and treated using descriptive analysis.

Figure 2. Quantitative result on reasons for agreeing on print form of modular instruction.

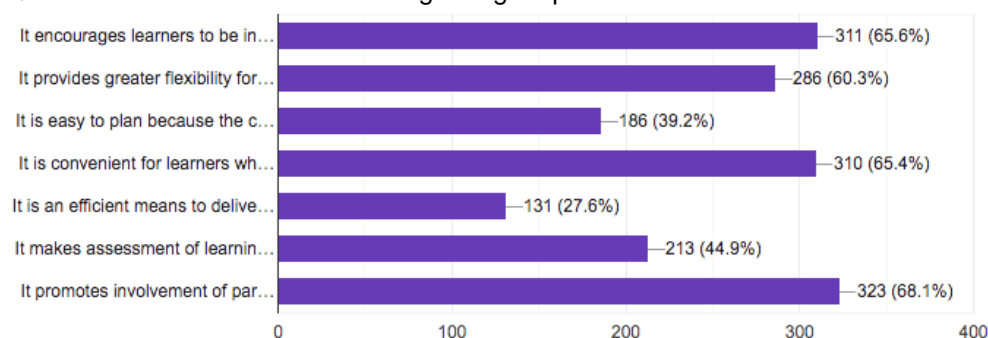


Figure 3 presents the reasons for agreeing on the print form of modular instruction. Four items emerged to be the main reasons.

The result indicates that the print form of modular instruction promotes the involvement of parents in the learning of the children ( $n=323$ , 68.1%) and encourages learners to be independent in their learning ( $n=311$ , 65.6%). It also demonstrates that the teachers agree for the reasons that it offers convenience for learners who do not have technological resources ( $n=310$ , 65.4) and provides greater flexibility for

learners to work at their own pace (n=286, 60.3%). These reasons emerged as the main reasons of the teachers for favoring the print form of remote instruction.

Figure 4. Quantitative result on reasons for disagreeing on print form of modular instruction.

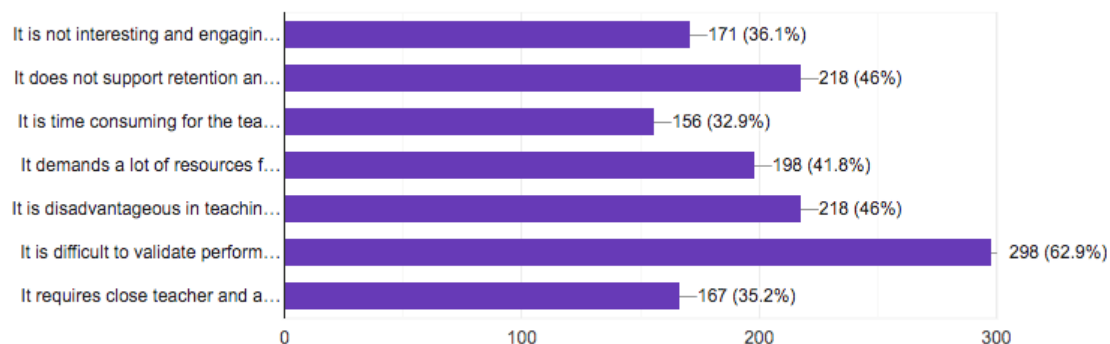


Figure 4 presents the reasons for disagreeing on the print form of modular instruction. Three items emerged to be the main reasons.

The result shows that with the print form of modular instruction, it is difficult to validate the performance of the learners (n=298, 62.9%), emerging as the top reason of the teachers for not favoring the print form of remote instruction. Furthermore, it is deemed disadvantageous in teaching difficult lessons or subjects (n=218, 46%) and does not support retention and permanence of learning (n=218, 46%). Such reasons appeared to be the main reasons of the teachers for not favoring the print form of remote instruction.

### Qualitative Results

Furthermore, this study determined the views of teachers on the advantages and disadvantages of using the print form of modular instruction. The data were gathered through a qualitative survey and treated using thematic analysis.

Table 2. Qualitative result on advantages of print form of modular instruction.

| Sample Code  | Category   | Theme   |
|--|--|---|
| "Parents can monitor the progress of their children since they are the temporary teachers."                          | Provides parent opportunity to evaluate learning | Provides holistic parent involvement in learning    |
| "It allows parents or guardian to have their own assessment with their child."                                       |  |   |
| "It also became their quality time while answering the modules."   | Provides strong emotional connection             |   |
| "It gave learners and parents more time to bond with each other while complying the lessons."                        |  |   |
| Modular learning teaches the values of making effort, time management, and discipline.                               | Develops responsibility in learning              | Develops skills of learners in independent learning |
| "The benefit of printing modular instruction is that children learn to answer their tasks."                          |  |   |
| "It lets the students explore and discover knowledge on their own."  | Develops essential skills in learning            |   |
| "Through printed modules, students exercise and develop their critical thinking for learning."                       |  |   |
| "It somehow provides access in education in the remote area where internet and signal is inaccessible."              | Suits learners without internet access           | Suits learners without technological resources      |
| "Easy to access. It is convenient to learners who do not have internet access most especially in far-flung schools." |  |   |
| "It is advantageous for those who don't have cellphone and laptop or computers."                                     | Suits learners without learning gadgets          |   |
| "It is convenient for learners who do not have sufficient amount of money to buy gadgets."                           |  |   |
| "Student who belong to poor family have a chance to help their parents in doing works to earn money."                | Allows learners to maximize their time           | Allows wider flexibility on the part of learners    |

|  |   |   |
|--|---|---|
| <i>"Learners can still do their other responsibilities since print modular modality doesn't need physical appearance."</i>   |   |   |
| <i>"The students can scan again their lesson if ever they forgot something about their lesson."</i><br><i>"Learners can answer certain subject based on their liking and their level of difficulty."</i> | Allows learners to learn at their preferences |   |
| <i>"The learners are obliged to stay at home, preventing them from acquiring COVID 19."</i><br><i>"It would be safe for the learners from the spreading of COVID-19."</i>                                | Ensures safe learning from COVID-19           | Ensures safe instructional modality from health risks |
| <i>"It made me feel secure that I would not catch COVID-19."</i><br><i>"The advantage that I had gained in adopting the print form of modular instruction is I am free and safe from COVID-19."</i>      | Ensures safe teaching from COVID-19           |   |
| <i>"It serves as best avenue for the continuity of learning despite the pandemic."</i><br><i>"It's another way to continuously seek knowledge despite of pandemic."</i>                                  | Promotes learning continuity despite pandemic | Promotes education continuity despite pandemic        |
| <i>"We can still continue to educate children despite the very difficult situation."</i><br><i>"We can still deliver the lesson to the learners despite the situation."</i>                              | Promotes teaching continuity despite pandemic |   |

Table 2 presents the advantages of the print form of modular instruction. Six themes emerged from the analysis discussed as follows.

**Provides holistic parent involvement in learning.** The print form of modular instruction essentially gave parents a holistic manner of involvement in the learning of their children. According to the teacher, the parents were not only able to assess the learning of their children themselves ("It allows parents or guardian to have their own assessment with their child" -Teacher X), but they were also able to create a chance to emotionally connect with their children ("It gave learners and parents more time to bond with each other while complying the lessons" – Teacher X).

**Develops skills of learners in independent learning.** Furthermore, through the print form of modular instruction, the learners developed skills to independently learn in the process. The teachers claimed that it made the learners responsible for their learning ("Modular learning teaches the values of making effort, time management, and discipline" -Teacher X) and acquire important skills in learning ("It lets the students explore and discover knowledge on their own" -Teacher X).

**Suits learners without technological resources.** As the print form of modular instruction is delivered through written materials, it served as a practical modality of learning especially for learners who do not have adequate technological resources required in other modalities like online learning. It is suited to the learners who do not have internet access ("It is convenient to learners who do not have internet access most especially in far-flung schools" Teacher X) and gadgets to use for learning ("It is advantageous for those who don't have cellphone and laptop or computers" -Teacher X).

**Allows wider flexibility on the part of learners.** Moreover, the print form of modular instruction also provided the learners with flexibility in many aspects of their personal situations. For instance, it allowed them to maximize their time ("Learners can still do their other responsibilities since print modular modality doesn't need physical appearance – Teacher X) and learn according to their specific preferences ("Learners can answer certain subject based on their liking and their level of difficulty" -Teacher X).

**Ensures safe instructional modality from health risks.** The print form of modular instruction also gave the teachers and learners a safe instructional modality considering the health risks posed by the current situation. It afforded safe learning ("The learners are obliged to stay at home, preventing them

from acquiring COVID 19” -Teacher X) and safe teaching (“It made me feel secure that I would not catch COVID-19” -Teacher X).

**Promotes education continuity despite pandemic.** Lastly, the print form of modular instruction was seen by the teachers as a way for education to continue amid the pandemic. It made it possible for the learners to keep on learning (“It’s another way to continuously seek knowledge despite pandemic” -Teacher X) and teachers to deliver lessons (“We can still deliver the lesson to the learners despite the situation” -Teacher X)

As a whole, the following themes describe the advantages of print form of modular instruction: (a) provides holistic parent involvement in learning; (b) develops skills of learners in independent learning; (c) suits learners without technological resources; (d) allows wider flexibility on the part of learners; (e) ensures safe instructional modality from health risks; and (f) promotes education continuity despite pandemic.

Table 3. Qualitative result on disadvantages of print form of modular instruction.

| Sample Code  | Category   | Theme  |
|--|--|--|
| <p>“Mostly the modules and summative tests were answered by parents or other family members.”</p> <p>“Sometimes their parents are the one who answered it even writing the answers.”</p>   | Raises issue on who answers the tasks                        | Raises issues on validity of learning assessment               |
| <p>“Students are tempted to answer questions by searching it in some sources.”</p> <p>“Some of the answers were just copied from the answer key.”</p>  | Raises issue on how answers are derived                      |  |
| <p>“Some of the lessons especially mathematics are hard to understand that even parents can’t teach their child.”</p> <p>“Abstract lessons especially in science are hard to learn in print form of modular instruction.”</p>                                | Presents difficulty in teaching abstract lessons             | Presents difficulty in teaching abstract and practical lessons |
| <p>“Without social interaction, it is hard to develop oral communication skills.”</p> <p>“The students are not engaged because teaching MAPEH is difficult if not taught in actual.”</p>   | Presents difficulty in teaching practical lessons            |  |
| <p>“Sometimes we use our own money for the printing of modules because of lack of funds.”</p> <p>“It is costly. With the number of students and the number of subjects that need to be printed it needs a large amount of budget.”</p>                       | Demands amount of money to produce materials                 | Demands lots of resources to produce materials                 |
| <p>“Very impractical or inefficient because the production of printed materials is time-consuming.”</p> <p>“Print form of modular instruction is time-consuming for the teachers to prepare.”</p>  | Demands amount of time to produce materials                  |  |
| <p>“Learners may not have the opportunity to clarify to the teachers their difficulty in the lessons.”</p> <p>“Most of the learners need further explanation from their teacher.”</p>  | Limits interaction in teaching and learning process          | Limits quality of teaching and learning process                |
| <p>“It is difficult to cater the individual differences of the learners because the activities are mostly written.”</p> <p>“It lacks social interaction that is found in a typical, traditional classroom. Thus, it does not fit all types of learners.”</p> | Limits inclusivity in teaching and learning process          |  |
| <p>“In lower grades, some of our pupils can hardly comprehend the instructions and the lesson given to them.”</p> <p>“Some pupils were not able to answer because they cannot comprehend the given materials.”</p>   | Requires learner to have reading skill to engage in learning | Requires independent reading skill to succeed in learning      |
| <p>“If the parents are illiterate, they can’t assist the child in the activity given.”</p> <p>“Some parents cannot assist well because they don’t know how to read.”</p>   | Requires parent to have reading skill to assist in learning  |  |

Table 3 presents the disadvantages of the print form of modular instruction. Five themes emerged from the analysis discussed as follows.

**Raises issues on validity of learning assessment.** The mode assessment in the print form of modular instruction is remote which was found to be difficult to determine the validity of the evidence of learning. Consequently, the teachers were skeptical as regards who answered the assessment tasks (“Summative tests were answered by parents or other family members” -Teacher X) and how the answers were derived (“Some of the answers were just copied from the answer key” -Teacher X).

**Demands lots of resources to produce materials.** Likewise, the preparation of the materials for the print form of modular instruction was considered to be a cumbersome process to the teachers as it required lots of resources. They articulated that it demanded amount of money (“With the number of students and the number of subjects that need to be printed it needs a large amount of budget” -Teacher X) and time (“Very impractical or inefficient because the production of printed materials is time-consuming” -Teacher X).

**Presents difficulty in teaching abstract and practical lessons.** As lessons in the print modular instruction are presented through written form, the nature of some lessons proved to be hard to deliver in this modality. For example, the teachers related that abstract lessons are difficult to learn for the children (“Abstract lessons especially in science are hard to learn in print form of modular instruction” -teacher X) as well as those lessons that need practical learning experiences to be learned (“Without social interaction, it is hard to develop oral communication skills” -Teacher X).

**Limits quality of teaching and learning process.** On the other hand, the print form of modular instruction was perceived to be limiting when it comes to providing a quality teaching and learning process possible. According to the teachers, it constrained class interaction (“Learners may not have the opportunity to clarify to the teachers their difficulty” -Teacher X) and restricted learning inclusivity (“It is difficult to cater the individual differences of the learners because the activities are mostly written” -Teacher X).

**Requires independent reading skill to succeed in learning.** Because lessons in print modular instruction need to be decoded from written form, it requires independent reading skill for the persons involved in delivering it. With this prerequisite skill, it is especially difficult for young learners (“In lower grades, some of our pupils can hardly comprehend the instructions” -Teacher X) and for assisting parents who do not know how to read (“Some parents cannot assist well because they don’t know how to read” -Teacher X).

Overall, the following themes depict the disadvantages of the print form of modular instruction: (a) raises issues on validity of learning assessment; (b) demands lots of resources to produce materials; (c) presents difficulty in teaching abstract and practical lessons; (d) limits quality of teaching and learning process; and (e) requires independent reading skill to succeed in learning.

### **Convergence of Quantitative Result and Qualitative Result**

Finally, this study aimed to determine the perceptions of the teachers on the print form of modular instruction by integrating the quantitative and qualitative results of the research. A comparative analysis was undertaken to reveal the convergence in the two data sets.

Table 4. Integrated perception on print form of modular instruction.

| <b>Quantitative results</b>   | <b>Qualitative results</b>   |
|---|--|
| Main reasons for agreement to print form of modular instruction: <ul style="list-style-type: none"> <li>• Promotes involvement of parents in the learning of the children</li> <li>• Encourages learners to be independent in their learning</li> <li>• Offers convenience for learners who do not have technological resources</li> <li>• Provides greater flexibility for learners to work at their own pace</li> </ul> | Emergent themes of advantages of print form of modular instruction: <ul style="list-style-type: none"> <li>• Provides holistic parent involvement in learning</li> <li>• Develops skills of learners in independent learning</li> <li>• Suits learners without technological resources</li> <li>• Allows wider flexibility on the part of learners</li> <li>• Ensures safe instructional modality from health risks</li> <li>• Promotes education continuity despite pandemic</li> </ul> |



|  |  |
|--|--|
| <p>Main reasons for disagreement to print form of modular instruction:</p> <ul style="list-style-type: none"> <li>• Is difficult to validate the performance of the learners</li> <li>• Is disadvantageous in teaching difficult lessons or subjects</li> <li>• Does not support retention and permanence of learning</li> </ul> | <p>Emergent themes of disadvantages of print form of modular instruction:</p> <ul style="list-style-type: none"> <li>• Raises issues on validity of learning assessment</li> <li>• Presents difficulty in teaching abstract and practical lessons</li> <li>• Demands lots of resources to produce materials</li> <li>• Limits quality of teaching and learning process</li> <li>• Requires independent reading skill to succeed in learning</li> </ul> |
|--|--|

Table 4 presents the integrated perception of the teachers on the print form of modular instruction. The points of convergence between the data sets are discussed as follows.

Firstly, in terms of the positive perception on the print form of modular instruction, it can be noted that all the main reasons for agreement appeared to be complemented by the emergent themes of advantages. As can be gleaned from both the quantitative result and qualitative result respectively, it can be affirmed that the print form of modular instruction has positive attributes relative to parent involvement in learning, encouragement of independent learning, practicality in learning resources needed, and flexibility on the part of the learners.

On the other hand, two more emergent themes discovered in the qualitative result appeared to be not captured by the quantitative result. These are positive perceptions particular to the current context, indicating that the print form of modular instruction ensured safe instructional modality and promoted education continuity amid the pandemic.

When it comes to the negative perception on the print form of modular instruction, at least two items from both the quantitative result and qualitative result complement each other. These items pertain to the concerns on the validity of the assessment results and difficulty in delivering specific lessons or subjects.

However, it can be observed that one main reason as revealed in the quantitative result did not appear in the qualitative result, pertaining to the poor support of the print form of modular instruction on permanence and retention of learning. On the other hand, three emergent themes as found in the qualitative result did not arise in the quantitative results, referring to the demand of resources in producing the materials, reduced quality of teaching and learning process, and required skill in independent reading.

Generally, the positive perceptions on the print form of modular instruction can be recapitulated as follows: (a) promotes holistic parent involvement in child learning; (b) develops independence in learning; (c) suits learners with poor learning resources; (d) allows flexibility for learners to work at their own pace (e) ensures safe modality from health risks; and (f) promotes education continuity despite pandemic.

On the other hand, the negative perceptions can be summarized as follows: (a) raises issues on validity of assessment; (b) presents difficulty in delivering abstract and practical contents; (c) does not support retention and permanence of learning; (d) demands lots of resources to produce materials; (e) limits quality of teaching and learning process; and (f) requires independent reading skill to succeed in learning.

### Discussion

The goal of this research is to describe the perceptions of the teachers on the print form of modular instruction. The results are discussed as follows.

The print form of modular instruction promoted holistic parent involvement in the learning of their children. Consonant with the notion of Anzaldo (2021), parents realize in this modality their important

role in the education of their children. Gumapac et al. (2021) found out in their study that the parents are highly engaged as they sustain motivation and monitor the performance of their children. Cahapay (2021) added that parents lived out the remote education experience as an opportunity to connect with their children not only physically but also emotionally.

The print form of modular instruction also developed the independence and flexibility of learners. These advantages of this modality are exalted in past and recent studies (e.g., Cheng & Abu Bakar, 2017; Nardo, 2017; Tan-Espinar & Ballado, 2017; Anzaldo, 2021). Generally, according to these studies, the modular approach presents a more independent and flexible learning approach to the learners. Designed to be self-contained and well-defined, it allows them to study on their own and according to their own pace.

On the practical aspect, the print form of modular instruction is suitable for learners who have poor learning resources, especially in the context of developing countries. Talimodao and Madrigal (2021) explored the experience of learners in written modular classes and indicated that education at this time is affected by learning resources. This echoed the earlier survey reported that modular learning is the most preferred option (Bernardo, 2020; Magsambol, 2020) as compared to online learning that would need high technology resources like computers and internet connection.

Set within the context of the COVID-19 crisis, the print form of modular instruction ensured safe modality and promoted education continuity. It is consistent with the goal of emergency remote education to provide options that offer capabilities for learning in this time of global interruption (Rotas & Cahapay, 2020; Rotas & Cahapay, 2021). Education systems are urged to prepare different learning delivery modalities, including the print form of modular instruction, to ensure that learners are engaged and can continue their learning amidst the pandemic (World Bank, 2020).

On the other hand, a major downfall of the print form of modular instruction is the issues on the validity of evidence of learning assessment obtained from it. Damao and Nabalawag (2021) observed similar findings that with this modality, it was particularly challenging as parents answered the worksheets of their children. This issue has been bannered in the national news since the inception of emergency remote education and authorities have reminded parents about their role to guide their children in accomplishing the lessons but not do the lessons themselves (Pelayo, 2020).

The preparation of the print form of modular instruction likewise demanded lots of resources. Castroverde and Acala (2021) recently studied the challenges encountered by the teachers in modular distance learning modality. One important theme they found was the recurring challenge in preparing the materials, stating that the print form of modular instruction consumed the time of the teachers and supply of printing materials. Hence, considering practicality from the side of the teachers, the print form of modular instruction may not be efficient.

Moreover, the print form of modular instruction presented difficulty in delivering abstract and practical contents. Cahapay and Labrador (2021) affirmed in their study that the teachers found it hard to present particular science concepts, especially those that are abstract and practical. Far from more personal types of interaction, the print form of modular instruction presents difficulties in teaching, for example, problems that need direct explanations during the learning process (Dangle & Sumaoang, 2020).

Lastly, the print form of modular instruction is seen to be unfavorable on the basis that it requires independent reading skill, does not support retention of learning, and limits the quality of instructional process. Dejene and Chen (2019) explained that modular instruction generally demands independence, thus appropriate for more mature learners with skills, for example, in reading. Quiroz et. al (2015) also supported that modular instruction does support learning retention but the computer-assisted form does better effects than print form. Generally, interaction is a challenging component that affects quality of remote instructional process (Terzi & Çelik, 2005) more so in print form of modular instruction.

## Conclusion

This paper aimed to describe the perceptions of the teachers on the print form of modular instruction. The results demonstrate that the print form of modular instruction promotes holistic parent involvement in child learning; develops independence in learning; suits learners with poor learning resources; allows flexibility for learners to work at their pace; ensures safe modality from health risks; and promotes education continuity despite pandemic. On the other hand, it raises issues on validity of learning assessment; presents difficulty in delivering abstract and practical contents; does not support retention and permanence of learning; demands lots of resources to produce materials; limits quality of teaching and learning process; and requires independent reading skill to succeed in learning.

Based on the results, it is suggested that, while parent involvement is evident, there is a need for concerned education authorities to orient families on the importance of valid learning assessment and the use of strategies to properly assess the performance of the learners. As resources would permit and in consideration of concerned education authorities, the print form of modular instruction also needs to be complemented with other interactive materials and approaches to be effective especially in teaching lessons that involve complex skills and difficult concepts. Lastly, where needed, specialized remediation should be given by concerned education authorities to learners in the lower grades and parents who cannot read, so that an efficient implementation of instruction may be realized.

There is an emerging body of studies on perceptions on the print form of modular instruction, but this study is so far the first to converge quantitative and qualitative data sets from a considerably large sample to gain a wider perspective on the subject of interest. As this research only involved teachers, it implies that more related studies in the future should be conducted to validate the results from the other concerned groups like the parents and learners to better capture a more comprehensive picture of the context. For further directions in this area of research, such studies should also focus on triangulation using other data collection and analysis techniques to confirm the results of this study.

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