

Exploring the Development Process and Appropriateness of a Competency-based Instructional Materials Package in Pagbasa at Pagsusuri ng Iba't Ibang Teksto Tungo sa Pananaliksik

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Abstract – This paper presents the development process of an instructional material (IM) package for the course Pagbasa at Pagsusuri ng Iba't-ibang Teksto tungo sa Pananaliksik (PPITP). It reports empirical information about the development and seeks to determine the appropriateness of the IMs through experts', teachers' and students' evaluation. The instruments used were: (1) IM evaluation questionnaire, (2) slidetext evaluation questionnaire, and (3) interview schedule. The scope of the content of the IMs covered the least mastered competencies in the course. These were determined through a researcher-constructed diagnostic test. The ADDIE model was employed in the design and development of the IMs. The IM package consists of the students' module, teachers' manual, and a slidetext. The students' module and teachers' manual were analyzed and evaluated by experts and teachers in terms of its physical aspect and presentation, objectives, content, activities, and assessments. Meanwhile, the slidetext was evaluated in terms of content, physical aspect and visual clarity. The IMs were implemented and used by purposively selected 94 Grade 11 students and two (2) Senior High School teachers. Through determining the mean and the standard deviation of the survey responses, findings show that the IM package had a very high level of appropriateness in all aspects. This implies that the IM package is an effective tool in attaining the objectives of the course PPITP, and in addressing the students' least mastered competencies. Recommendations for pedagogy and research conclude the paper.

Keywords – PPITP, instructional materials, development, evaluation

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INTRODUCTION

The implementation of K to 12 Program in the Philippines has brought new challenges to teachers specifically in the preparation of instructional materials that will suit to the new demands of education. In addition, the COVID-19 pandemic has changed the views in the production of these materials. One of the new courses offered in the Senior High School in the K-12 Program is Pagbasa at Pagsusuri ng Iba't Ibang Teksto Tungo sa Pananaliksik. Upon the enactment of the new curriculum, numerous entities, both individuals, organizations and even teachers themselves, have pointed out the insufficiency of learning materials provided by the Department of Education [1]– [5]. Particularly, phenomenological research by Dumpang et al. [3] has revealed very specific concerns which were directly taken from the teachers themselves: inappropriate materials for the curriculum, teachers' using personal finances to provide materials to students, and limited books in Filipino and other subjects.

One of the more recent initiatives of the Department of Education was the launching of the "Adoption of the Basic Education Research Agenda" or the DepEd Order No. 39, s. 2016 [6]. This emphasizes several research themes and topics that are responsive to the pressing concerns in the Philippine basic education, coherent to the agency's vision, mission, and agrees to the local and international developments in the sector. These research areas are given priority and one of them is the production of instructional materials. Teachers are encouraged and supported to create their own materials to respond to the call for research-based IMs and specifically suit the needs of the learners and give solution to the problem of unavailability and lack of instructional materials for the said course. Hence, this research was conducted and had produced instructional package which includes students'

modules, a teachers' manual and a slidetext. These IMs can be utilized and are readily available for online learning in this time of pandemic.

This study may be very useful in providing research-based solutions to the problems of inappropriate and insufficient learning materials. It may provide the concerned agencies, educational managers, administrators, teachers, and curriculum designers a contemporary approach to and empirical information on how instructional materials are designed and developed. This study and its findings entail the need for educational institutions to review and revisit the curriculum and materials to ensure that educational objectives will be attained.

OBJECTIVES OF THE STUDY

This study aimed to identify the least mastered competencies in the course Pagbasa at Pagsusuri ng Iba't Ibang Teksto Tungo sa Pananaliksik and use this information as grounds for designing and developing an instructional material package appropriate for the objectives of the said course. It further evaluated the level of appropriateness of the instructional material in terms of its physical aspect, objectives, content, activities, and assessment.

MATERIALS AND METHODS

This study will utilize the design research, which provides a protocol in developing research-based solutions to intricate dilemma in educational practice and to develop and validate theories regarding the processes and environments of learning [7]. This research follows the developmental approach of the design because of its primary aim is to develop and evaluate an instructional material package for the course Pagbasa at Pagsusuri ng Iba't Ibang Teksto Tungo sa Pananaliksik (PPITP).

For assessing the least mastered competencies, this study involved Grade 12 students in the Senior High School Department of a public national high school from the Division of Iloilo. They were enrolled in the course PPITP during the S.Y. 2019-2020. For the pilot testing, a group of Grade 11 students from a laboratory school in Iloilo City were selected. In the actual implementation, the 94 Grade 11 students were purposively selected from a public national high school from the Division of Iloilo and a laboratory school from the city of Iloilo who were taking the said course in the second semester of the school year 2019-2020.

There were three (3) groups of evaluators who evaluated the instructional material package: (a) five

Senior High School Filipino teachers teaching the subject; (b) three (3) experts in the development of instructional materials; and (c) the ninety-four (94) Grade 11 students who utilized the module.

This study used a researcher-made test to assess the least mastered competencies of students. It adapted a questionnaire to evaluate the level of appropriateness of the instructional material package.

First, a 155-item researcher-made test had undergone item analysis, validity, and reliability test. The validity of the test was established by expert validation which generated an overall mean of 4.70 indicating a very high instrument validity. Reliability was ensured through conducting a pilot test. The process generated a 0.79 Kuder Richardson (KR) 20 score which indicated that the researcher-made test was reliable. The test was divided into two parts: part 1 which covered the eight (8) competencies of the course and was composed of 95 items for multiple choice test, and part 2 which covered the five performance competencies. The test was a 60-item essay performance test. In ensuring the observance of ethical guidelines, the researchers required consent forms to be read and signed by all the respondents before commencing with the study.

Second, the research questionnaires. There were three (3) sets of questionnaires used in the study. The first questionnaire was utilized to evaluate the level of appropriateness of the students' module and the teachers' manual. The second one was used to evaluate the level of appropriateness of the slide text. The third one, an interview guide, was employed to gather the experiences of the students and teachers in using the instructional material. Among the data gathering instruments is an interview schedule. This instrument was used to collect information directly from the respondents with regards to their experiences in using the IM package. It was composed of open-ended questions that were categorized into: (1) establishing rapport, and (2) experiences on the use of instructional package. The interview schedule was validated by three experts and measured the appropriateness of the questions included. During the actual interview, probing and follow-up questions were also added.

The ADDIE Model or the Analysis, Design, Development, Implementation, Evaluation model [8] was used in the development process.

Analysis. The students in Grade 12 were given a 120-item researcher-made test to assess the least mastered competencies in the subject PPITP. Before administering the test, the researcher sent a letter to the

President asking permission to conduct the test. This was done through coordination with the coordinator of the Senior High School Department of a laboratory school in Iloilo City and the Principal of a public national high school in the Division of Iloilo.

Design. After the least mastered competencies of students have been identified, the students' module, teachers' manual, and slidetext were developed. The outline and format of the module to be developed is constructed during this stage. The results of the analysis served as basis for constructing the outline of the resulting module. It adheres to the curriculum guide of the course PPITP and responds to the least mastered competencies.

Development. During the development stage, the researcher developed the students' module based on the outline and format constructed in the design stage. The content of the module was based on the information derived from the researcher-made test which were the least mastered competencies in PPITP.

Implementation. The revised instructional package was tried-out among the students who are currently taking up the course PPITP during the second semester of school year 2019-2020 in two schools: a public national high school in the Division of Iloilo and a laboratory school (senior high school department) in Iloilo City.

Evaluation. The level of appropriateness of the instructional package was evaluated in this stage by the three (3) sets of evaluators: (a) five Senior High School Filipino teachers teaching the subject; (b) three experts in the development of instructional materials; and (c) the students who utilized the module. Furthermore, students' and teachers' experiences in using the instructional package were also gathered.

The following statistical tools were used to analyze the data gathered: (1) frequency count and percentage were utilized to determine the least mastered competencies in the course PPITP; (2) the mean was used to determine the overall level of appropriateness of the instructional package in terms of the different aspects and was also used to ascertain the combined evaluation of the teachers, students, and experts of the level of appropriateness; (3) the standard deviation was used to determine the homogeneity and heterogeneity of the obtained responses in the teachers', experts' and students' evaluation of the instructional package; and (4) thematic analysis by Braun and Clarke (2006) was used in the study to generate themes from the experiences of the students and teachers in the use of the instructional package.

RESULTS AND DISCUSSION

The least mastered competencies of the students in Pagbasa at Pagsusuri ng Iba't Ibang Teksto Tungo sa Pananaliksik (PPITP) were identified through the administration of a researcher-made test. Three least mastered competencies were identified using the multiple-choice test, and two other least mastered competencies were identified using the essay test. These were identified as the bottom five competencies. The least mastered competencies were: (a) naiisa-isa ang mga paraan at tamang proseso ng pagsulat ng isang pananaliksik sa Filipino batay sa layunin, gamit, metodo at etikang pananaliksik; (b) natutukoy ang paksang tinalakay sa iba't ibang tekstong binasa; (c) naiisa-isa ang mga paraan at tamang proseso ng pagsulat ng isang pananaliksik sa Filipino batay sa layunin, gamit, metodo at etikang pananaliksik; (d) nakasulat ng ilang halimbawa ng iba't ibang uri ng teksto; at (e) nagagamit ang mabisang paraan ng pagpapahayag.

Therefore, a module was developed that comprises a range of formats to stimulate the different senses that students may use in learning. The module and the slidetext offer these various learning experiences using graphics, illustrations, colors, and audiovisual materials (video presentation).

The identified least mastered competencies became the basis for coming up with the development of the teachers' manual, students' module, and a slide text. A designer can use any type of format in developing an instructional module. In this study, the researcher particularly utilized the format recommended by Aguirre and de Cadiz (2013). The said format was selected because it was relatively parallel to the one used by the DepEd, and it seemed appropriate to address the least mastered competencies of the students in PPITP. This format also includes a teachers' manual which will serve as a guide for teachers. It was also one of the products of this study.

The contents of the students' module and teachers' manual were identified and included based on the least mastered competencies of the students in the subject. The contents of the module included all topics for the course PPITP. However, the activities and drills focused more on the achievement of the identified least mastered competencies. The module started with a pretest to assess the prior knowledge of the students and ended with a posttest to assess what has been learned.

The developed slidetext was made with limited content to support the lecture part of the teaching-

learning process. It was composed of two units with 11 lessons that covered the five least mastered competencies. The slide texts had the following parts: topic, objectives, and content.

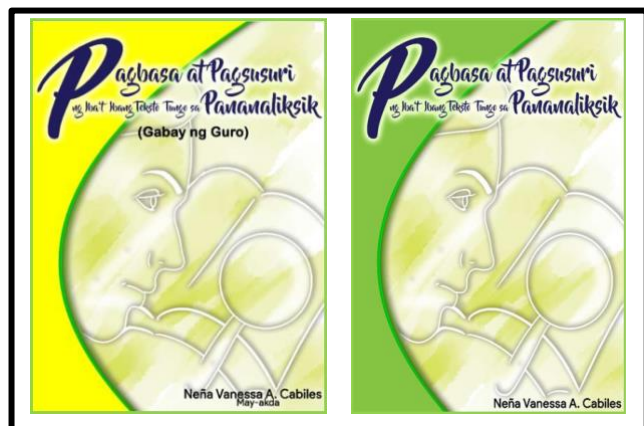


Figure 1. The developed module for PPITP

Teachers' and experts' evaluation of the appropriateness of the developed instructional package (Manual, Module, and Slidetext)

The level of the appropriateness of the developed instructional package (teachers' manual, students' module, and slidetext) was evaluated by five (5) senior high school PPITP teachers and three (3) experts in developing instructional materials. The evaluation of the students' module was based on the five aspects considered in the development of instructional material: physical aspect, objectives, content, activities, and assessment.

Table 1. Summary of Teachers' and Experts' Evaluation of the Appropriateness of the Students' Module

	Teacher	Expert	Over-all rating	Description
Physical aspect	SD=0.53 M=4.60	SD=0.29 M=4.83	SD=0.41 M=4.72	Very high
Objectives	SD=0.51 M=4.64	SD=0.23 M=4.80	SD=0.37 M=4.72	Very high
Content	SD=0.53 M=4.60	SD=0.30 M=4.73	SD=0.44 M=4.67	Very high
Activities	SD=0.49 M=4.72	SD=0.00 M=5.00	SD=0.25 M=4.86	Very high
Assessment	SD=0.51 M=4.64	SD=0.23 M=4.80	SD=0.37 M=4.72	Very high
Total Rating	SD=0.51 M=4.64	SD=0.22 M=4.83	SD=0.37 M=4.74	Very high

Note: Interpretation guide: Very High = 4.51-5.0, High = 3.51-4.50, Moderate = 2.51-3.50, Low = 1.51-2.50, Poor = 1.0-1.50.

The results showed that the students' module had a very high ($M = 4.74$, $SD = 0.37$) overall rating from the teachers and experts. Specifically, the physical aspect ($M = 4.72$, $SD = 0.41$) was rated very high. This seems to show that the design and layout of the texts and illustrations were logically and clearly arranged. Apparently, the materials facilitated easy reading using appropriate color, font style, size, and line spacing. For the objectives, the rating was also very high ($M = 4.72$, $SD = 0.37$). This means that the objectives were stated very clearly and written in the students' perspective. This also indicates that the objectives were specific and stated the expected outcomes or performance. The evaluators, correspondingly, rated the content ($M = 4.67$, $SD = 0.44$) very high. Seemingly, the content supports the development of higher cognitive skills such as critical thinking, inquiry, problem solving, innovation, and creativity. It likewise indicated that the contents included in the students' module meet the varied needs of learners from different levels and groups.

The activities, likewise, was rated very high ($M = 4.86$, $SD = 0.25$). Most likely, the activities were interesting to the students because of the engaging and comprehensive tasks. In addition, the activities may have provided the learners clear instructions and sufficient opportunities to apply new knowledge about real world situations and problems.

Similarly, the aspect of assessment was rated very high ($M = 4.72$, $SD = 0.37$). This seems to show that the module had assessment tools that measured student engagement and are congruent with the learning objectives.

Summary of teachers' and experts' evaluation of the appropriateness of the developed teachers' manual

The evaluation of the teachers' manual was also based on the five aspects of instructional material development: physical aspect, objectives, content, activities, and assessment.

Results showed that the overall rating of the teachers and experts' evaluation of the teachers' manual was very high ($M = 4.73$, $SD = 0.37$). Specifically, the physical aspect ($M = 4.73$, $SD = 0.40$) was rated very high. The flow of ideas in the manual was seemingly smooth and logical, and the printing was of good quality—no broken letters and with correct alignment. The objectives were likewise rated very high ($M = 4.72$, $SD = 0.37$).

Table 2. Summary of Teachers' and Experts' Evaluation of the Appropriateness of the Teachers' Manual

	Teacher	Expert	Over-all rating	Description
Physical aspect	SD=0.50 M=4.63	SD=0.29 M=4.83	SD=0.40 M=4.73	Very high
Objectives	SD=0.51 M=4.64	SD=0.23 M=4.80	SD=0.37 M=4.72	Very high
Content	SD=0.51 M=4.60	SD=0.35 M=4.67	SD=0.43 M=4.64	Very high
Activities	SD=0.49 M=4.72	SD=0.12 M=4.93	SD=0.31 M=4.83	Very high
Assessment	SD=0.51 M=4.64	SD=0.23 M=4.80	SD=0.37 M=4.72	Very high
Total Rating	SD=0.50 M=4.65	SD=0.24 M=4.81	SD=0.37 M=4.73	Very high

Note: Interpretation guide: Very High = 4.51-5.0, High = 3.51-4.50, Moderate = 2.51-3.50, Low = 1.51-2.50, Poor = 1.0-1.50.

This simply shows that the objectives were measurable and appropriately designed for the level of the course. Instructional materials demand a high rating when it comes to its adherence to a course's learning objectives. In a study by Sonsaat (2018), evaluating the user expectations of a teacher's manual, it was reported that clear objectives are significant [11].

Furthermore, the content was also rated very high (M = 4.64, SD = 0.43). This may prove that the content was aligned with the given objectives contributing to the students' achievement. Likewise, the activities aspect (M = 4.83, SD = 0.31) was rated very high. This indicates that the activities were accurate and updated. Also, the assessment was rated very high (M = 4.72, SD = 0.37). Probably, this is because the methods were found appropriate to the learners' level and provided both mechanism for positive feedback and prescriptive guides for remediation. Based on the teachers' and experts' evaluation, the teachers' manual appeared to have generally met the standards, even though it needs minimum revision. According to the National Research Council [12], an important characteristic that a good instructional material should possess is the extent to which it matches standards and the ratings and judgement it gained from expert reviewers and validators.

Summary of teachers' and experts' evaluation of the appropriateness of the developed slidetext

Unlike the students' module and teachers' manual, the slidetext was evaluated based only on the three aspects of development of PowerPoint presentation: content, physical aspect, and visual clarity.

Table 3. Summary of Teachers' and Experts' Evaluation of the Appropriateness of the Slidetext

	Teacher	Expert	Over-all rating	Description
Content	SD=0.49 M=4.63	SD=0.25 M=4.81	SD=0.37 M=4.72	Very high
Physical aspect	SD=0.49 M=4.67	SD=0.32 M=4.63	SD=0.41 M=4.65	Very high
Clarity	SD=0.48 M=4.65	SD=0.22 M=4.88	SD=0.35 M=4.77	Very high
Total Rating	SD=0.49 M=4.65	SD=0.26 M=4.77	SD=0.38 M=4.71	Very high

Note: Interpretation guide: Very High = 4.51-5.0, High = 3.51-4.50, Moderate = 2.51-3.50, Low = 1.51-2.50, Poor = 1.0-1.50.

Results showed that the overall rating of the teachers and experts of the slidetext was very high (M = 4.71, SD = 0.38). More specifically, the content of the slidetext was rated very high (M = 4.72, SD = 0.37). This may be attributed to the appropriateness of the information in every slide text presentation and the correct sentence construction. Good grammar and writing are crucial in creating learning materials because it allows a writer to successfully convey the intended meaning and to capture both the interest and understanding of the reader [13].

Similarly, the physical aspect (M = 4.65, SD = 0.41) was also rated very high. This may be because the slides have appeared in order and the layout was appropriate. In the same way, the font type, size, and color were consistent all throughout the presentation. The aspect of visual clarity was also rated very high (M = 4.77, SD = 0.35). This may be because the font colors and background were appropriate, and the illustrations and figures contributed to the attractiveness of the presentation. The results of the teachers' and experts' evaluation of the slidetext in all aspects were very high; therefore, the slidetext has most likely met the standards. It should be noted, though, that minimal revisions were recommended. Visual design and aesthetics give way to creating instructional materials that allows learners to perceive information more meaningfully and learn from it, adds elements of surprise and delight, and enhances recall of concepts, recognition of patterns, comprehension of concepts and problem-solving [14]– [16].

Students' evaluation of the appropriateness of the developed instructional package (Students' module and slidetext)

The level of appropriateness of the students' module and slide text was evaluated by the 94 Grade 11

students at a public national high school in the Division of Iloilo and a laboratory school from the city of Iloilo. More specifically, these students belonged to the Senior High School Department and were taking the course Pagbasa at Pagsusuri ng Iba't Ibang Teksto Tungo sa Pananaliksik (PPITP) during the conduct of the study.

Summary of students' evaluation of the appropriateness of the students' module

The evaluation of the students' module was based on the five aspects of the module development as an instructional material: physical aspect, objectives, content, activities, and assessment.

Table 4. Summary of Students' Evaluation of the Appropriateness of the Students' Module

	SD	M	Description
Physical aspect	1.43	4.58	Very high
Objectives	0.65	4.43	High
Content	0.56	4.56	Very high
Activities	0.62	4.54	Very high
Assessment	0.63	4.45	High
Total Rating	0.78	4.51	Very high

Note: Interpretation guide: Very High = 4.51-5.0, High = 3.51-4.50, Moderate = 2.51-3.50, Low = 1.51-2.50, Poor = 1.0-1.50.

The findings revealed that the students' overall rating of the students' module was very high (M = 4.51, SD = 0.78). More specifically, the physical aspect was rated very high (M = 4.58, SD = 1.43). This is an indication that the module facilitated easy reading for the students and the vocabulary level was within the students' experiences and level of understanding. An instructional material should be designed to become self-instructional for its learners and help them learn from it independently with minimum assistance [17].

The content and activities were also rated very high (content, M = 4.56, SD = 0.56; activities, M = 4.54, SD = 0.62). It seems to appear that the content of the module was appropriate to the level of the students based on the curriculum guides. In addition, the activities, possibly provided practice for learners to develop or strengthen critical thinking and comprehension skills. Meanwhile, the objectives (M = 4.43, SD = 0.65) and assessment (M = 4.45, SD = 0.63) were rated high. Most likely, the objectives covered the cognitive, affective, and psychomotor domains and assessment tools were not notably congruent with the learning objectives. Khalil and Elkhider (2016) asserts

that instructional and assessment instruments should integrate the three domains of learning and the learners' cognitive level [18].

In summary, the students' evaluation (overall rating = very high) of all the aspects of the students' module showed that the developed material has met the standards and only needs minimal revisions.

Summary of students' evaluation of the appropriateness of the slide text

The evaluation of the slidetext was based on the three aspects of power point presentation development as an instructional material: content, physical aspect, and visual clarity.

Table 5. Summary of Students' Evaluation of the Appropriateness of the Slidetext

	SD	M	Description
Content	0.56	4.58	Very high
Physical aspect	0.61	4.47	High
Visual clarity	0.57	4.57	Very high
Total Rating	0.58	4.54	Very high

Note: Interpretation guide: Very High = 4.51-5.0, High = 3.51-4.50, Moderate = 2.51-3.50, Low = 1.51-2.50, Poor = 1.0-1.50.

The results showed that the overall rating of the slidetext among the students was very high (M = 4.54, SD = 0.58). Specifically, the findings revealed that the content (M = 4.58, SD = 0.56) and visual clarity (M = 4.57, SD = 0.57) were rated very high. Perhaps the content was aligned/coherent with the requirements of an instructional package and the information was factually stated and are free from errors. In terms of visual clarity, the illustrations and figures plausibly aided in understanding the statements, and the animation was interesting and free from distraction. Visual aspects such as animations allow learners to process information faster compared to using static graphics [19].

Moreover, the physical aspect was rated high (M = 4.47, SD = 0.61). Perhaps, the creativity, artistry, and the graphics/color were good but must be improved further to enhance the appearance of the slidetext. Illustrations, graphics and other visual tools allow learning materials to strengthen understanding and recall of content, bring about materials and learning processes [20]–[21].

The very high rating of the content and visual clarity of the slidetext among the students revealed that the developed material has met the standards and minimal

revisions are needed. However, the high rating of the physical aspect of the material means that it has satisfactorily met the standards required of an instructional material, though very few revisions may be needed.

Students' and teachers' experiences in using the developed instructional package

The developed instructional package for Pagbasa at Pagsusuri ng Iba't ibang Teksto Tungo sa Pananaliksik, was tried out at a Senior High School department of a public national high school and a laboratory school in the city of Iloilo. One teacher from the public high school and another one from a laboratory school used and implemented the instructional package. These teachers were interviewed about their experiences in using the materials. Similarly, eight students were interviewed by the researcher about their experiences in using the instructional package. The interview method of collecting information is deemed significant in achieving the goals of this study because it obtained and explored in-depth information about the participants' opinions and experiences on the research topic [22]–[24].

Students' experiences

The students were given the option to speak in their mother tongue (i.e., Filipino or English) to guarantee that the respondents can express themselves thoroughly and share their experiences in using the instructional package. The interview transcripts were translated into the English language. The following themes were drawn out from the interview: (1) simple and easy to understand; (2) appealing to the students; (3) reinforces independent learning; and (4) offers personal and varied experiences.

Simple and easy to understand. It is important for an instructional material, especially a reading material, to be clear and easy to comprehend. In the process of developing an instructional material, readability is given much importance. The content should also be appropriate to the level of students with appropriate vocabulary and right length of sentences [25]. Appropriate layout structure helps facilitate natural eye movement of readers, enhancing their comprehension of the content [26]. Readability may be increased if page flow is considered [27]. The simplicity of the module was evident as what Student F said, "It seems very simple. The words are not like those in the Bible, and then, it is very easy to understand. What do you call that? It's user-friendly. The students will not have a hard time because the words are appropriate to our

level. Especially for me, I am not very particular when it comes to Tagalog".

Appealing to the students. An instructional material that uses appropriate visuals, as observed, can appeal to students' senses. Most of the learners of today are visually oriented individuals. They are motivated to learn if visuals are present in learning the topics. However, only appropriate graphics should be utilized [28]; that is, adding a picture to a material should add information to clarify the text or content. In other words, use the appropriate and right amount of artwork to support students' learning. Student mentioned that "The layout is okay. I like the examples because they are entertaining. It's like, you will not get bored in listening because there are illustrations and pictures. It really helped a lot. It is not heavy for one's eyes."

Reinforces independent learning. Amadioha (2009) claims that the reality of experience in instructional materials stimulates interest among learners which encourages them to study the material independently [29]. The developed instructional package let the students study their lessons on their own and somehow, motivate them in further learning the concepts which are not found in the module. As what Mayos et al. (2008) said, that instructional materials should help in students' individual learning [25]. This is evident in what Student C said, "It is a good experience. On some points, there are parts that the students need to solely do it... to think independently. It's very helpful like for example in some parts of the module, you are taught first of how to do it, then after that, when you must do it, you need to use your own original ideas. You need to incorporate your own ideas and it's a challenge because you cannot copy and paste."

Offers personal and varied experiences. The developed instructional package included activities to which students can relate their personal experiences and allows them to share their personal ideas. Dachs (1999) explains that materials produced should offer learners avenues for further learning while making sure that all its aspects (i.e., content, activities, assignments) cater to various types of learners [30]. An instructional package introduces various learning activities that suit students' interests and motivation. This is evident in what Student A mentioned, "I find it motivating because the activities found in the module are enjoyable including the 'Do-It-Yourself' portion. We discover our hidden talents, and we discover our creativity."

Teachers' experiences

The researcher interviewed the two teachers who implemented and used the instructional package. From the interview transcript, the following themes emerged: (1) displays comprehensiveness; (2) aides in the smooth flow of the teaching process; and (3) helps monitor students' learning.

Displays comprehensiveness. Cabra [31] identified books, lesson plans, modules, assignment, classroom activities, teachers' manual, drills, and tests are parts of an instructional material. The instructional package developed in this study (students' module, teachers' manual and slidetext), can offer a broader and complete experiences for the learners. It is apparent in what Teacher A said, "The learning package ma'am, for me, is complete and it is really a big help for the Grade 11 students because it's all in there. The sample explanations of the content of the lessons are clear."

Aides in the smooth flow of the teaching process. The purpose of creating and producing instructional materials is to aide in facilitating the teaching and learning process. Hence, it is only logical that the groundwork of production is guided by research-based information and findings on how learners learn [29]. It is evident in what Teacher A said that "It's a big help because it will not be hard for me to facilitate the learning of the students. It's all in there like the responses for the activities. I hope that additional materials like this will be produced to help teachers in the teaching and learning process."

Helps monitor students' learning. When teachers check students' responses on certain activity and write notes, it is somehow a way of communicating to students about their performance. Instructional materials establish a communication channel through which messages are facilitated between a source and a receiver [29]. Teacher A elaborated that, "I've noticed that every lesson in the module starts with an introductory activity that motivates students to think and it is very easy to connect it with the main lesson. Then it ends with an activity. You can follow-up what the students have learned... there is an application of learning."

CONCLUSION AND RECOMMENDATION

As revealed in this paper, the failure to achieve the required learning competencies of a course may be attributed to the way instructional materials are designed and developed. Aside from appropriate design and sophisticated method of developing instructional materials, another important factor is to consider the

extent to which the materials offer ample experiences to learners. The very high level of appropriateness rating of the developed instructional package from the experts and students is proof that it is an effective supplementary tool which may be used by teachers and students. In addition, the development of the slidetext as an additional tool in teaching the subject, may further motivate students to learn and deepen their understanding because students of today are visually oriented individuals [32]. The shared meaningful experiences of both the students and teachers revealed that: (1) the content, objectives, and learning activities in the IM package were suited to the interests, values, needs and learning styles of the students, (2) the instructional materials allowed the teachers to monitor students' progress, and (3) the IM package provided them new and innovative ways to facilitate the teaching and learning process. These findings imply that learning should be personal and varied and should aid teachers in delivering instruction.

It is recommended that subject teachers, other than Filipino teachers, assess the current needs of their learners and classroom to develop useful and appropriate learning materials. It is also suggested that educators and curriculum developers look at the specific and unique learning situations and setups before designing an instructional material. Furthermore, this paper suggests the enhanced prioritization and support for teacher-researchers who are interested in initiating actions to develop instructional materials. This may aide in the improvement of the delivery of instruction in the new subjects in the K to 12 programs, particularly in the Filipino subject. Lastly, this paper recommends that curriculum developers, administrators, and other key role-players in the education sector launch researches and efforts towards enhancing and reforming the current curriculum to match the dynamically changing society and educational setups. The findings of this study imply the usability, effectivity, and suitability of modules into the current pandemic-induced educational setup: that is, online, remote, or blended learning. On the other hand, the paper only presents the development and evaluation of IMs in the Filipino learning area. This may impose limitations as to how learning materials are designed in other subject areas such as the arts, sciences, and mathematics. Nevertheless, the IM package presented in this study and the methods used in its production may be able to provide empirical information and guidelines for future researchers and educators who also seeks to develop more appropriate

learning materials to increase the attainability of learning competencies.

REFERENCES

- [1] Baron, G. (2021, September 13). *Shortage of learning materials, lack of teachers' benefits manifestations of 'failed' education system — students' group*. Manila Bulletin. <https://mb.com.ph/2021/09/13/shortage-of-learning-materials-lack-of-teachers-benefits-manifestations-of-failed-education-system-students-group/>
- [2] Cervantes, F. M. (2021, July 2). *Solon wants overhaul of K-12 system*. Philippine News Agency. <https://www.pna.gov.ph/articles/1145802>
- [3] Dumpang, C. N., Sedanza, M. A. C., & Caluza, L. J. B. (2021). Needs assessment of grade 8 instructional materials in teaching Filipino: a phenomenology. *International Journal of Research Publications*, 71(1), 11-17. <https://doi.org/10.47119/IJRP100711220211758>
- [4] Legaspi, A. (2014, June 2). *Lack of materials, facilities still hound K to 12 implementation*. GMA News Online. <https://www.gmanetwork.com/news/topstories/specialreports/363734/lack-of-materials-facilities-still-hound-k-to-12-implementation/story/>
- [5] Mateo, J. (2019, June 27). *DepEd hit for lack of learning materials*. The Philippine Star. www.philstar.com/other-sections/education-and-home/2019/06/27/1929821/dep-ed-hit-lack-learning-materials
- [6] Department of Education. (2016). *Adoption of the Basic Education Research Agenda*. https://peac.org.ph/wp-content/uploads/2018/08/DO_s2016_039.pdf
- [7] Akker, J. V. D., Bannan, B., Kelly, A. E., Nieveen, N., & Plomp, T. (2013). *Educational design research: part A: an introduction*. Netherlands Institute for Curriculum Development (SLO).
- [8] McGriff, S. J. (2000). *Instructional system design (ISD): using the ADDIE model*. Penn State University.
- [9] Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- [10] Aguirre, D. & de Cadiz, G. (2013). *Instructional materials development manual*. Eastern Visayas State University.
- [11] Sonsaat, S. (2018). Native and nonnative english-speaking teachers' expectations of teacher's manuals accompanying general English and pronunciation skills books. *The CATESOL Journal*, 30(1), 113-138.
- [12] National Research Council. (1999). *Selecting instructional materials: A Guide for K-12 Science*. The National Academies Press.
- [13] Ontario Tech University. (2022). *The importance of grammar*. Ontario Tech University. <https://nool.ontariotechu.ca/writing/english-language-resources/grammar/index.php>
- [14] de Bruyn, F. (2021, May 14). *The importance of visual design in learning design*. Inspire Group. <https://www.inspiregroup.net/inspire-group-blog/blog/the-importance-of-visual-design-in-learning-design>
- [15] Malamed, C. (2021). *How to use graphics to improve learning*. The Learning Coach. <https://thelearningcoach.com/media/graphics/using-graphics-to-improve-learning/>
- [16] Reyna, J. (2013). *The importance of visual design and aesthetics in e-learning*. Australian Institute of Training and Development.
- [17] Universitas Terbuka. (2015). *Learning materials*. Indonesia Open University. www.ut.ac.id/2015/en/about/420-learning-materials
- [18] Khalil, M. K. & Elkhider, I. A. (2016). Applying learning theories and instructional design models for effective instruction. *The American Physiological Society*, 40(2), 147-156. <https://doi.org/10.1152/advan.00138.2015>
- [19] Ayres, P., Marcus, N., Chan, C., & Qian, N. (2009). Learning hand manipulative tasks: when instructional animations are superior to equivalent static representations. *Computers in Human Behavior*, 25(2), 348–353. <https://doi.org/10.1016/j.chb.2008.12.013>
- [20] Kwasu, I. A., Yalamus, S. M., & Ema, E. (2016). Using design & animation concepts to produced animated instructional resources that can facilitate open distance learning in science and technology education. *Journal of Education and Practice*, 7(17), 166-170. <https://iiste.org/Journals/index.php/JEP/article/view/31104/31939>
- [21] Kwasu, I. A. & Ema, E. (2015). Effectiveness of animated instructional resource for learning facilitation among secondary school student in Bauchi Nigeria. *Journal of Education and*

- Practice*, 6(21), 113-120. <https://files.eric.ed.gov/fulltext/EJ1079103.pdf>
- [22] Easwaramoorthy, M. & Zarinpoush, F. (2006). *Interviewing for research*. Imagine Canada. http://sectorsource.ca/sites/default/files/resources/files/tipsheet6_interviewing_for_research_en_0.pdf
- [23] Fox, N. (2009). *Using interviews in a research project*. The National Institute of Health Research Research Design Service for the East Midlands / Yorkshire.
- [24] Virginia Polytechnic Institute and State University. (2018, September 21). *Research methods guide: interview research*. Virginia Tech University Libraries. <https://guides.lib.vt.edu/researchmethods/interviews>
- [25] Mayos, N. S., Gutierrez, J. C. & Tica-a, P. F. (2008). *Ang guro ng bagong milenyo: mga kagamitang panturo sa Filipino*. Jimcy Publishing House.
- [26] Wheildon, C. (1995). *The Physiology of Reading*. <https://writing.colostate.edu/guides/page.cfm?pageid=777&guideid=36>
- [27] Kilbane, C. & Milman, N. (2014). *Teaching models: designing instruction for 21st century learners*. Pearson.
- [28] Taylor, M. (2020). *7 ways to use graphics for learning*. Learn U. <https://learn-u.com/lesson/7-ways-to-use-graphics-for-learning/>
- [29] Amadioha, W. S. (2009, March). *The importance of instructional materials in our schools: an overview*. Rivers State University of Science and Technology.
- [30] Dachs, N. (1999). 'Against all (well, many!) odds'. *the implementation of dynamic-interactive guided study modules for music education courses at colleges of education*. Sage Journals, 33(1), 18-29. <https://doi.org/10.1177/025576149903300104>
- [31] Cabra, L. V. (2000). *Isina-Filipinong mga piling maikling kwentong Hiligaynon, Kabuluhan bilang kagamitang pampagtuturo sa paaralang sekondarya (Dinailathalang tesis)*. Pamantasang Estado sa Kanlurang Bisayas.
- [32] Gangwer, T. (2015). *Shifting to visual teaching*. Teach Thought. www.teachthought.com/learning/shifting-visual-teaching/

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