

Research Article

WORKTEXT FOR THE TEACHING OF MOTHER TONGUE IN KINDERGARTEN IN AKLAN, PHILIPPINES

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Abstract

Nine years into the implementation of the Mother Tongue Based-Multilingual Education (MTB-MLE) in the Philippines, there is still dearth in instructional materials for the teaching of the subject, especially in the provinces. Instructional materials are mostly produced by the Department of Education (DepEd) with few private sector initiatives covering bigger language groups. Publications by non-DepEd personalities and entities to design, develop, and validate instructional materials in the mother tongue is most welcome. Using the ADDIE Model, this project aimed to develop a worktext on vocabulary development for kindergarten learners in Aklan, Philippines. Specifically, the following objectives were answered: 1) to determine the teacher-evaluators' opinion on the alignment of worktext's content to the learning competencies; 2) to find out teacher-evaluators' opinion on the alignment of worktext's content to the desired learning outcomes; 3) to generate suggestions from teacher-evaluators to further improve the quality of the worktext; 4) to list down parents' observation on the tasks contained in the worktext when engaged to by their kindergartens. The analysis, design, and development stages were done from October-December 2018 while implementation and evaluation stages were completed in January- May 2019. Given the iterative process involved in the ADDIE model, revisions based on the evaluators' and observers' comments were made instantaneously across the entire process. DepEd kindergarten teacher-evaluators reported that the worktext had "fully met the expectation" and culturally relevant while parent-observers described that the worktext contained activities with varying levels of difficulty responsive to children's ability. The evaluated worktext entitled Magtuon it Akeanon:

A Worktext on Vocabulary Development for Akeanon Kindergarten Learners comes in printed book format with a downloadable digitized version.

Keywords: ADDIE Model, Instructional Design, Kindergarten, MTB-MLE, Akeanon, Worktext

Introduction

Studies on the use of mother-tongue based multilingual education (MTB-MLE) have all pointed to some benefits for young children. Among other, MTB-MLE promotes the development of better language skills in their mother tongues as well as the national language, increases efficiency in school attendance and prevents cultural and linguistic loss (ACDP Indonesia, 2014), and improved academic achievement (ACDP Indonesia, 2014; Sied, 2016; Awopetu, 2016). These are the reasons which prompted the Philippine government to institute MTB-MLE in its basic education beginning 2013 (Philippine Congress, 2013).

Its implementation had without challenges in terms of ideology and logistics. Parba (2018), for instance, reported resistance among elementary school teachers in Cebuano-speaking areas of the southern Philippines which looked at the learning of the English language as a means to participate in a globalized world. Mangila (2019), on the other hand, reported on the absence of instructional materials written in the mother tongue, lack of teacher-trainings, lack of vocabulary and language mismatch.

The Department of Education came up with massive book writing sessions and successfully delivered the instructional materials contextualized in every mother tongue covered by the curriculum with delays. The process, however, created a situation where the instructional materials are not culturally relevant (Mangila, 2018) to learners of language groups like Akeanon in Central Philippines because the model instructional material was written by someone belonging to another language group.

To resolve this issue, translation and contextualization should be eliminated in creating a worktext in teaching mother tongue so that the context and realities of Akeanon language and culture are embedded immediately in the design and development phases. The worktext is primarily created to supplement the existing learners' materials provided by DepEd under the subdomain of "vocabulary development", a decision informed by research stating that home literacy resource for Filipino children's language and literacy were associated with vocabulary skills among 5-years old

(Dulay, Cheung & McBride, 2018). There is a need to produce an instructional material which addressed the above-state concerns. Hence, this project.

Research Objectives

Based on the above-stated description, the following objectives were answered: 1) to determine the teacher-evaluators' opinion on the alignment of worktext's to the learning competencies; 2) to find out teacher-evaluators' opinion on the alignment of worktext's content to the desired learning outcomes; 3) to generate suggestions from teacher-evaluators to further improve the quality of the worktext; 4) to list down parents' observation on the tasks contained in the worktext when engaged to by their kindergartens.

Research Methodology

The ADDIE model was used for this research and development project. The origins of the model are unknown (Molenda, 2003). Instructional designers agree on the phases comprising the ADDIE model. It is composed of five stages namely, Analysis, Design, Development, Implementation, and Evaluation. The analysis defines the problem, identifies the source of the problem, and determines possible solutions. The stage may include specific research techniques such as needs analysis, job analysis, and task analysis. The outputs of this stage often include the instructional goals and a list of tasks to be instructed. Design involves using the outputs from the analysis stage to plan a strategy for developing the instruction. During this stage, one must outline how to reach the instructional goals determined during the analysis stage and expand the instructional foundation. Development generates lesson plans and lesson materials. Implementation represents the actual delivery of the instruction, whether it is classroom-based, lab-based, or computer-based. The purpose of this stage is the effective and efficient delivery of instruction. Lastly, the evaluation measures the effectiveness and efficiency of the instruction (McGill, 2000).

The validity of this model has been shown in several projects in the past. For instance, a group of researchers concluded that instructional design approaches such as ADDIE may offer implementation scientists and practitioners a flexible and systematic approach for the development of e-learning modules as a single component or one strategy in a multifaceted approach for training in Evidence-Based Practices (EBPs) (Patel et al., 2018). Several instructional designers have also utilized the ADDIE model in projects like a student-centered toolkit for the library (An & Quail, 2018); Self-Directed Digital Learning Material Development Platform (Karademir et al., 2019); and Massive Open Online Courses

(MOOCs) (Croxton & Chow, 2015). Another related study concluded that the application of ADDIE could result in instruction that focuses on learning outcomes relevant to students, meets students' needs, and facilitates active learning (Reinbold, 2013).

In another study, three salient uses of the ADDIE model were likewise established to achieve several different ends in information literacy instruction. First, it provides a structure around which librarians can develop a variety of instructional interactions. Second, it helps librarians consider student engagement, learning, and assessment more intentionally. Lastly, it helps to marry information literacy-specific standards and other learning guidelines, such as high-impact practices and e-learning best practices (Hess & Greer, 2016).

Following the model, this worktext underwent analysis, design and development stages between October 2018-December 2018 while implementation and evaluation stages took place in January-May 2019.

The evaluation was implemented on three levels which cut across the entire process. First, the language evaluation performed by two in-house Akeanon language experts in the state university. Second, ten kindergarten teachers from the DepEd Schools Division of Aklan were requested to evaluate the worktext. Lastly, it was pilot-tested in a kindergarten class in a public school with parents as observers/evaluators to record the engagements of pupils on the worktext.

For this project, ADDIE Model was implemented in the manner described below;

Analysis: The author-researcher had sought opinion of kindergarten teachers in the schools division of Aklan for the need to create additional instructional materials of Akeanon MTB-MLE for kindergarten. The answer was affirmative. Emphasis on Akeanon vocabulary mentioned as young children had difficulty in understanding Akeanon terms. Armed with the information, the Standards and Competencies for Five-Year-Old Filipino Children (Deped, 2016) was consulted to determine the possible lessons. More importantly, there were conscious efforts to integrate values across the lessons of the planned worktext.

Design: The book is composed of ten lessons reflecting the learning competencies under subdomain on vocabulary development intertwined with values identified by the worktext author-researcher. The Akeanon titles were translated into English and enclosed in parentheses to facilitate understanding by the readers. Please see Table 1.

Table 1: Title of Lessons by Learning Competency Under Vocabulary Development

Lesson	Title	Area of Vocabulary Development
1	Matinatapon Ako (I am Prudent)	Common objects/ things in the environment (home)
2	Maatag Ako (I am Generous)	Common objects/ things in the environment based on color, shape, size, and function/use
3	Matinumanon Ako (I am Obedient)	Recall and use words from story listened to
4	Makadugaling Ako (I am Independent)	Give the meaning of words presented through objects, pictures, actions, synonyms and antonyms, and context clues
5	Mabinuliglon Ako (I am Helpful)	Name objects that begin with a particular letter of the alphabet
6	Mapinalanggaon Ako (I am Loving)	Give the names of family members and the role they play/jobs they do/ things they use
7	Matinahuron Ako (I am Respectful)	Give the name of community helpers and the roles they play/ jobs they do/ things they use
8	Mapinasaeamatlon Ako (I am Grateful)	Name the places and the things found in the community
9	Maeoeoy-on Ako (I am Charitable)	Give the synonyms of given words
10	Matutom Ako (I am Studious)	Give the antonyms of given words

The outline of the worktext was as follows: (learning objectives) Mga Dapat Kong Matun-an; (outcomes) Gusto kong...; (motivation) Mag-umpisa Kita; (requires the child to process the lesson through identification and selection) Mag-obra Kita; (child's decision-making) Pahaegahan Naton; (take-home message) Pangako Ko; and (encourages the parent/caregiver to be involved in the child's education and care) Kabuligan Naton.

Development. In starting the project, an instructional plan was drawn showing seven columns labeled as follows: "Lesson Number," "Title," "Primary Question," "Objective," "Self-Realization," "Evaluation," and "Number of Pages." The matrix guided the author-researcher in coming up with the draft instructional design. For this paper, only the first lesson translated into English is presented. A sample instructional plan is presented in Table 2.

Table 2: Sample Instructional Plan for the Worktext

Lesson	Title	Primary Question	Objective	Self-realization	Evaluation	No. of Pages
1	Matinatapon Ako (I am prudent)	Ginadayaw it dagaya ro onga nga mahipig sa gamit. Ngani dapat mangin mahipig kita sa mga gamit. <i>(People praise a child who is prudent in keeping his things. That is why we should be prudent.)</i>	Name common objects/ things at home	Pagkamahipig (Masinop) (Orderliness)	Pagsabat sa mga oeobrahon <i>(Responding to tasks)</i> Pagpapakita it sitwasyon <i>(Demonstration of situation)</i> Paalin mangin mahipig sa mga gamit sa baeay? <i>(How to display prudence in keeping things at home?)</i> <i>(pananglitan kabinet, notbuk, katre, mahaea, bag, eambong, upak, kahon, hampangan ag basurahan)</i>	6

Objectives for each lesson (see column 4) were lifted from the learning competencies under subdomain on vocabulary development. The title for each chapter was inspired by the values that author-researcher would like to highlight in the lessons. For instance, the “Lesson One” is entitled “Matinatapon Ako” (I am Prudent) is a lesson about nouns (naming common objects/ things at home) and interweaves with the value of “prudence” as well.

As much as the author-researcher would to faithfully execute the Standards and Competencies for Five-Year-Old Filipino Children of DEPED in the sequence of lessons, some issues propped up during the actual making of the instructional design. For instance, the first learning objective lumped the nouns on objects/ things found at home, school, and community. In the analysis of the author-researcher, the objective was too much for the target learners. It was decided to divide this learning objective into two lessons on common nouns spanning Lessons 1 and 2. The nouns (objects found in school) now included categories of color, shape, size, and function/use.

After the editing and critiquing, a draft was printed anew for language evaluation by in-house experts. Modifications included changes in the vocabulary and rewording of sentences. Suggestions on several contents like the choice of songs and poems were also made by the language evaluators. Implementation. The implementation stage took the form of pilot-testing in the public. The author-researcher requested the school principal for the purpose and received her approval. The former then discussed with the kindergarten teacher about the pilot testing and gained her support as well.

The author-researcher printed 35 copies enough for 33 pupils and one teacher. The books were brought by the author-researcher to the school in January 2019. Pilot testing began and was completed in March of the same year. Scheduled visits were made throughout the period to monitor the implementation and gather feedback from the kindergarten teacher. During the initial meeting, the author-researcher met with some of the parents. It was an opportunity to explain the purpose as well as the processes involved in the pilot testing. The teacher played key role in the pilot-testing process as she explained to other parents. She also took responsibility for distributing the books and the data gathering tools. At first, the teacher reminded the pupils not to bring home the books to avoid wastage. But the strategy had to change to cope with the delays in working with the DepEd-prescribed learners materials as the worktext served as supplementary instructional material. The teacher reminded the parents of the tasks to be completed and the role they play.

Evaluation. Given that evaluation under the ADDIE Model is iterative, this process was intertwined beginning the “Analysis” stage. There were two groups of evaluators, the kindergarten teachers, and parents of the kindergarten pupils.

Research Participants

For teacher-respondents, thirty (30) kindergarten teachers were selected, all of them female, assigned in the various school districts within the Schools Division of Aklan, Philippines. On average, they had served as kindergarten teachers for more than five years. They were chosen purposively for this project.

A kindergarten class of 33 pupils located in one of the complete elementary schools in the division that willingly accepted as the pilot class for the worktext implementation. From this class came the 25 parent-observers who assessed the children’s learning engagements with the worktext. The school was selected because of its rural location where the mother tongue Akeanon is believed to be rooted in young children.

Research Tools

Researcher-made instruments were used to gather data for this design research project. The instrument for teachers was labeled as “Materials Review Tool” while the one for parents was dubbed “Report Hanungod sa Paggamit it Tueon-an” (Report on Book Utilization).

On one hand, the Materials Review Tool for teacher-evaluators had three parts: Part I elicited data on demographic profile while Part II determined the alignment of the worktext with learning competencies prescribed by Deped. Lastly, Part III contained the Criteria for Desired Learning Outcomes.

On the other hand, the Report on Book Utilization written in the mother tongue (Akeanon) was designed to contain the parents’ observation on the engagement of their children on the 10 lessons contained in the worktext. It is a matrix designed to structure parents’ observation on the manner their children engage with the worktext. The tool had three columns labeled as follows: Column 1 (Leksyon [Lesson]), Column 2 (Oeobrahon nga Naeomuhan [Easy Task]) and Column 3 (Oeobrahon nga Nalisdan [Difficult Task]). The tool required the parents to report on the issues that came up while completing the tasks contained in the worktext.

The two sets of instruments were validated by a statistician, a lecturer of research methods, and a communication researcher, all employed in the university.

Data Collection

As for implementation-evaluation, the worktext was pilot-tested in the kindergarten class in the schools division. The author-researcher requested the school principal for the purpose and was approved. The former then talked to the kindergarten teacher about the pilot-testing and gained her support as well. Pilot-testing began in January 2019 and was completed in March of the same year. Visits were made throughout the period to monitor the implementation and gather feedback from the kindergarten teacher. During the initial meeting, the author-researcher met some of the parents. It was an opportunity to explain the purpose as well as the process involved in the pilot testing. The teacher had an important role in the pilot-testing process as she explained to other parents the need and the process. She also took responsibility for distributing the books and the data gathering tools. Retrieving the filled up “Report” was also facilitated by the teacher. Of the 15 observation reports returned to the author-researcher, 10 had substantial observations. The responses were lifted from the report, tallied, and presented as “multiple responses.”

For the evaluation of the worktext, the author-researcher was assisted by his teacher education students in recruiting teacher-evaluators. Each teacher-evaluator was promised to receive a “clean” copy once the book is fully validated or be given free access to download the digital copy to be uploaded online.

Data Analysis

To answer Research Question Nos. 1 and 2, responses were tallied and analyzed using the weighted mean. Computation was facilitated through Microsoft Excel. A rating guide with the scale of means for interpretation is presented below:

Rating	Scale of Means	Interpretation
4	3.51 – 4.00	The content fully meets the expectation
3	2.51 – 3.50	Few gaps in expectations that may be easily filled
2	1.51 – 2.50	Gaps in expectations that may not be easily filled
1	1.00 – 1.50	Majors gaps in expectations that may not be easily filled
0	0.00 – 0.00	No evidence of expectation

To answer Research Question No. 3, content analysis was employed while for Research Question No. 4, the frequency count was used.

Results and Discussion

This section will attempt to explore the results of the study in the context of the issues that prompted the conduct of the research and development project. For Research Question No. 1, teacher-evaluators rated the alignment with DEPED Standards and Competencies with 3.97 which clearly show that the worktext “fully meets the expectation” with all but two indicators had earned a perfect rating of 4.00 (see Table 3). It further shows that the contents of the worktext are at par with the learners’ materials currently used in the kindergarten classes in the public schools. With the creation of this worktext, additional and valid instructional material is made available as a response to the observation on the lack of instructional materials as reported by Mangila (2019). As mentioned in the implementation phase of the project, the kindergarten pupils were allowed to bring home the worktext and had their parents assist them in working on it. The worktext was used as a supplementary home literacy resource for the vocabulary skill development of these young children (Dulay, Cheung & McBride, 2018).

Table 3: Alignment with DEPED Standards and Competencies for Five-Year-Old Filipino Children

Indicators	Mean	Interpretation
1. Common objects/ things in the environment (home, school, and community)	4.00	Fully Meets the Expectation
2. Common objects/ things in the environment based on color, shape, size, and function/use	4.00	Fully Meets the Expectation
3. Recall and use words from story listened to	3.90	Fully Meets the Expectation
4. Give the meaning of words presented through objects, pictures, actions, synonyms and antonyms, and context clues	3.90	Fully Meets the Expectation
5. Name objects that begin with a particular letter of the alphabet	4.00	Fully Meets the Expectation
6. Give the names of family members, school personnel, and community helpers and the role they play/jobs they do/ things they use	4.00	Fully Meets the Expectation
7. Name the places and the things found in the community	4.00	Fully Meets the Expectation
8. Give the synonyms and antonyms of given words	4.00	Fully Meets the Expectation
Grand Mean	3.97	Fully Meets the Expectation

For Research Question No. 2, the teachers evaluated the worktext to have fully met the expectation of the criteria for desired learning outcomes as depicted by the grand mean of 3.85. Specifically, the indicator “appreciate the Filipino culture and what matters to the Philippines, be proud of Akeanon, be proud to be Filipinos, and situates the Philippines to the world” received a rating of 3.90 with an interpretation of “Fully Meets the Expectation”. It is a confirmation that the worktext is “culturally relevant” addressing the observation highlighted in the study of Mangila (2018). Table 4 shows the other indicators.

Table 4: Criteria for Desired Learning Outcomes

Indicators	Mean	Interpretation
1. demonstrates proficiency in various content knowledge, apply these to relevant and current situations, solve problems, take an active part in the creation of knowledge and be self-directed, life-long learners.	3.90	Fully Meets the Expectation
2. cultivates the habit of asking questions, collecting, analyzing information, and proposing solutions	3.90	Fully Meets the Expectation
3. shows resourcefulness, creativity, and ingenuity in innovating and solving unfamiliar problems	3.90	Fully Meets the Expectation
4. recognizes different views and opinions and respond effectively as a member of a bigger community and show the capacity for empathy and compassion	3.80	Fully Meets the Expectation
5. illustrates ability for strong ethics, make choices according to one’s value system, and reveals the ability to listen, respect, collaborate and learn from others	3.90	Fully Meets the Expectation
6. appreciate the Filipino culture and what matters to the Philippines, be proud of Akeanon, be proud to be Filipinos, and situates the Philippines to the world	3.90	Fully Meets the Expectation
Grand Mean	3.85	Fully Meets the Expectation

For Research Question No. 3, teacher-evaluators manifested their “suggestions” and “commendations” to further improve the worktext. For instance, Teacher No. 2 wanted to “put subdomain in every page.” The author-researcher sought clarification on the suggestion. According to the student-research assistants, Teacher No. 2 felt that teachers using the book would be more clarified

if the learning competencies of each lesson are reflected in the Table of Contents. This suggestion was not included in the revision. The author-researcher deemed it wise to simply state the title of each lesson assured that as the teacher became more familiar with the content of the worktext, the feeling of confusion would disappear.

Teacher No. 5 pointed out a language issue. The pilot copy used “anang” for possessive pronoun while the proper way is “ana nga.” For instance, “Nalipatan ni Antonia ro anang pencil case” (Antonia forgot her pencil.) After consultation with other in-house language evaluators and comments from another teacher-evaluator (who opted not to write her suggestion on the tool but requested the student-research assistant to tell the author-researcher about her suggestion), the author-researcher revised the statement to read, “Nalipatan ni Antonia ro ana nga pencil case.” All statements falling under the category were revised accordingly. The same approach was adapted to “hustong” which should be written as “husto nga.”

To give context on their comments, the indicators immediately followed placed in brackets and boldface.

Teacher No. 4 wrote the following observations:

- Has included various object commonly found in certain places [under indicator “Name common objects/things in the environment x x x];
- Particular examples were given explicitly [“Give the meaning of words presented through real objects, pictures, actions, synonyms and antonyms, and context clues”];
- Commendably beneficial for learners to decipher [“Name objects of family members, school personnel, and community helpers, and the roles they play/jobs they do/things they use”];
- Well-stated in the worktext [“Give synonyms and antonyms of given words”];

Teacher No. 8 had this to say:

- The activity is interesting to the pupils [“Describe the common objects/things in the environment based on color, shape, size, and function/use”]
- Helps pupils to develop their comprehension skills [“Name objects that begin with a particular letter of the alphabet”]
- Makes the pupils have a deeper knowledge about their environment [“Name the places and the things found in the classroom, school, and community”]
- Encourages the pupils to develop their critical thinking skills [“Exhibit resourcefulness, creativity, and ingenuity in innovating and solving unfamiliar problems”]

- Awakens the pupils to generate their understanding of the text [“Understand the Filipino culture and what matters to the Philippines, be proud to the Filipino, and understand the Philippines in relation to the world”]

The suggestions forwarded by teacher-evaluators are part of the iterative process involved in using the ADDIE model for research and development projects. As shown in prior articulations of the model (Molenda, 2015; McGill, 2000), constant revisions of the worktext took place across the five phases with feedback coming from potential users and experts as well.

For Research Question No. 4, parent-observers described the tasks contained in the worktext when engaged to by their children. There were two categories in the parent observation on how the child engaged with the worktext such as “easy tasks” and “difficult tasks.” As regards the “Easy Task,” the majority of parent-observers reported that kindergarten learners found it easy to recognize the correct answer/response on the tasks included in the worktext and “coloring” pictures on the book. Reading difficulties of kindergarten learners were reported as a “difficult task” by parent-observer. To resolve the difficulty in reading, most of them assisted their children through tutorials, review session, and other forms of assistance in doing school-related and non-school-related tasks at home. It is understandable for many parent-observers not to complete the “report” for several reasons i.e. obligations at home and work. The observations of parents were listed in Table 5.

Consistent with the phases of ADDIE Model, the feedbacks of parent-observers were significant in improving the worktext. It demonstrates that the worktext contains tasks with varying levels of difficulty for each kindergarten pupil.

Table 5: Parent’s Observation on the Tasks Engaged to by their Kindergarten

Easy Tasks	f
1. Recognizing the correct answers (“maeumo sa onga do pagkilaea sa tama”)	7
2. Coloring (“magkulay,” “naeumuhan na magkayola”)	5
3. Encircling (“naeumuhan magbilog”)	2
4. Drawing (“nag-drawing”)	2
5. Writing (“kantigo magsueat”)	2
6. Matching type (“Naeomuhan sa pagkonek sa Linyada A and Linyada B”)	1
7. Recognizing the correct behavior (“pagpakita it matarong nga ugali ag pagtahud sa mga maguean kana”)	1
8. Comprehension (“maeumo intindihon”)	1

Difficult Tasks	f
1. Reading (“ <i>nalisdan pa magbasa</i> ,” <i>indi pa kantigo magbasa hingan</i> ”)	5
2. Comprehension (“ <i>kon kaisa inde haeos magobra nalidan magintende</i> ”)	2
3. Household chores (“ <i>nalisdan ro onga gahimos it eogban</i> ”)	2
4. Akeanon vocabulary (“ <i>nalisdan nagbasa it binisaya nga Akeanon ag English</i> ”)	1

*multiple responses

Conclusion

This paper offers the following conclusions. First, the teacher-evaluators found the book to have fully met the expectation of Akeanon kindergarten teachers who would ultimately use the worktext in their classes. Second, the parents also found the worktext useful in engaging their children in the mother tongue. Third, the results of evaluation and observation make the worktext a useful additional culturally-relevant instructional material that can be used in teaching Akeanon vocabulary to kindergarten learners in Aklan, Philippines. Overall, this project is another contribution that validates the robustness of ADDIE Model for design research projects.

Suggestions

Given the scarcity of learners' materials on MTB-MLE in Akeanon, the following recommendations are proposed: develop similar materials covering the various competencies in the Standards and Competencies for Five-Year-Old Filipino Children, develop non-print/digitized materials on the subject, and encourage more Akeanon instructional materials developers to create more instructional materials in the mother tongue.

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