## RESEARCH ARTICLE

# MOTHER TONGUE ANIMATED VIDEOS: SUPPLEMENTAL MATERIALS FOR HILIGAYNON LEARNERS IN THE PHILIPPINES

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### ABSTRACT

Several studies regarding the implementation of Mother tongue Based Multilingual Education (MTB - MLE) and Disaster Risk Reduction Management implementation in the school point out the issue of lack of instructional materials that suit the needs of 21st-century learners. There are limited studies conducted that measure the relevance, usability, and effectiveness of some materials used in teaching MTB-MLE. Here, animated videos were developed and validated using Hiligaynon (a dialect in the Philippines) as supplemental materials to get the interest of learners and help teachers deliver the required curriculum content innovatively. The videos increased the learners' acquisition of knowledge, skills, and values, as shown in their pre-test and post-test performance. The development of Mother Tongue animated videos in other indigenous and tribal groups is necessary to achieve inclusive education and Education for All (EFA) and preserve linguistic and cultural diversity. Further development on how to overlay voice in different languages may also be considered for duplicating these videos as a learning tool.

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# INTRODUCTION

The linguistic and cultural diversity brings much complexity to the issue of language policy in education. In the Philippines, guidelines for Mother Tongue Based Multilingual Education (MTB-MLE) were established in 2012, the reform was integrated into the newly adopted "K to 12 Basic Education Program. "Twelve major regional languages were specified to be used as the language of instruction. Hiligaynon is one identified dialect widely used in the western Visayas and central part of Mindanao. Section 14 of Republic Act (RA) 1012, also known as "Philippine Disaster Risk Reduction and Management Act of 2010", requires DepEd, CHED, and TESDA to include. However, the realization drew criticism from different parties, including parents, teachers, and other clients. This is due to problems in the provision of appropriate content, inadequate materials, and fitting people to lead the implementation of Hiligaynon instructions (Malaga, 2014). On the other hand, the most popular trend in educating 21st-century learners who are termed as "digital natives" is the utilization of multimedia in instruction, particularly educational videos.

According to Guo (2014), video production has an impact on student engagement.However, despite the bloom of the MTB-MLE in the country and the trend of multimedia in instruction, scarcity of instructional videos that utilizes mother-tongue as a medium of instruction is a considerable concern. It is for this reason that the researcher developed animated educational videos as a tool for instruction. The created videos are supplemental materials that generate interest while also providing an innovative and effective way for an educator to deliver the required curriculum content.

**Mother Tongue Based Multilingual Education (MTB-MLE):** FELM (2017) states that Mother Tongue Based Multilingual Education safely bridges children to learn other national and international language and emphasize that learner's mother tongue forms a firm foundation for all learning. Mother tongue-based literacy not only helps learners become literates, but it also enables them to think critically to make decisions and develop their potential in their context as individuals and members. Lavina Gumba, L. 2015). Colenso, P. 2005 pointed out that language preferences are determinants of a minority's inclusion or exclusion from political, social,

and economic power, which may lead to social conflicts. These conflicts lead to violations of rights on language.

**Disaster:** Disasters are no longer viewed as one-off occurrences caused solely by natural factors but rather as representations of unsolved development issues. The disaster management practices have evolved from primarily a top-down relief and response approach to a more inter-sectorial risk management approach. In the current paradigm of risk management approaches, there is more room than ever before for addressing issues of risk reduction for the poor (Cutter, 2010).

**School Disaster Management:** Several studies have emphasized the significance of school in disaster management. School disaster management teams must be working together for they play important roles in implementing disaster plans. Management practices such as preparing disaster management plans for the school & evacuation routes, training of teachers, a delegation of responsibilities to different teachers are the major roles of the members of the disaster management team in a school. In the research conducted by Das 2014, he pointed out that the school disaster management team is in the planning stages, and there is scope for better planning and effective implementation for its execution. School safety has been a priority for schools, but the low level of disaster awareness planning can be attributed to infrequent planning and attendance at disaster awareness workshops and seminars for teachers (Onyango 2013). Despite various attempts to institute safety standards in schools, there are still several unresolved issues concerning students' safety in schools (Ismail 2016). He also pointed out a strong positive attitude among school administrators about the safety management plan and policy practices in school. Its commitment and communication of school administrators and safety education, training, and campaigns at schools significantly and positively predict teacher and staff participation, as well as parental and community involvement. School administrators should raise the level of awareness of disaster risk reduction issues among the teachers. A healthy working relationship with the community should be fostered to be able to involve the community in disaster risk reduction programs (Gicharu, 2015) Disaster drills are conducted to better prepare the students, faculty, and staff for the different uncertainties brought about by natural calamities and fire. The most frequent drill conducted was 'fire drill', some drills are 'earthquake drill' and 'bomb threat' drills. However, there were no drills on 'flood,' 'tsunami,' 'volcanic,' 'typhoon' although these natural disasters were considered equally dangerous (Alimen, 2013)

**Disaster Education:** Evaluation and risk assessment of school infrastructure, development of educational materials and activities for psychological recovery caused by disasters, and integration of school safety management and community-based disaster prevention are all deemed urgent. Assessments of school safety and vulnerability as a result of climate change and student psychological recovery following disasters are urgent lessons to be implemented after learning from the outcomes of a specific disaster (Chen C. Y, 2012). Moreover, disaster education should not only be limited to school students. Still, it should also be promoted to families and communities, as this is necessary to expand knowledge of DRR and contribute to a disaster-safe society in the country (Tuladhar, 2014).Furthermore, the study found that the community's coping mechanisms and the extent to which

disaster management knowledge is integrated into school curricula are insufficient for dealing with earthquake disasters. It is thus recommended that traditional and modern technologies be integrated into curricula and, later, into practices for reducing disaster risk (Haulle 2012).

**Objectives:** This study aimed to develop DRRM educational videos for Hiligaynon Learners.

**Specifically, this study did the following.**

- Develop educational videos on:
  o Disasters
    ▪ flood
    ▪ earthquake
  - 1.1.3 fire
- Determine the content validity of educational videos in terms of :
  o Appropriateness
  o Adequacy
- Determine the extent of the acceptability of the videos in terms of:
  o Relevance
  o Efficiency; and,
  o Usability
- Determine the effectiveness of the educational videos

# METHODOLOGY

The selected subjects of the study were the Grade 3 pupils of Blingkong Central Elementary School Lutayan District II Sultan Kudarat, Philippines. This research developed and validated educational videos in Mother Tongue-Based Multilingual Education (MTB-MLE) that focused on the topic in the K to 12 curriculum guide for Grade 3. PowerPoint and Animaker were used in developing an animated type of video. The three animated videos focused on disaster preparedness for flood, fire, and earthquake disasters. Master teachers and school heads validated the video's appropriateness, adequacy, and extent of acceptability in terms of relevance, usability, and effectiveness using the adopted questionnaire from Robles, 2016. The weighted mean and overall mean was used to analyze and interpret the results of the validation. The five-point Likert- Type Scale was used to better interpret the data obtained. Furthermore, the researcher used a T-test for dependent samples to find out the effectiveness of the educational videos.

# RESULTS AND DISCUSSION

Table 1 shows results of the content validity of the MTB-MLE Educational videos, which are Highly Appropriate with (M=4.87) and Highly Adequate (M=4.73) with an overall weighted mean (4.80) Very Highly Appropriate/adequate. With the appropriateness, the questionnaire consisted of 5 indicators. Three of the statements got the highest mean of 5.0, which was described as very highly appropriate. These statements were: the content of the videos representative of Kto 12 basic education curriculum: The videos are relevant for the topic on the disaster. Lastly, the videos suggest the answer to the respondents. In terms of adequacy, the questionnaire comprised 5 indicators. The four statements got the same weighted mean of 4.83, which was described as very highly adequate.

**Table 1. Results on the Content Validity of the Educational Videos**

| Indicator | Mean | Statement |
|---|---|---|
| Appropriateness | 4.87 | Very Highly Appropriate |
| Adequacy | 4.73 | Very Highly Adequate |
| Overall Mean | 4.80 | Very Highly Appropriate and Adequate |

**Table 2. Results on the Extent of Acceptability of Educational Videos**

| Indicator | Mean | Statement |
|---|---|---|
| Acceptability | 4.83 | Very Highly Acceptable |
| Usability | 4.83 | Very Highly Usable |
| Relevance | 4.73 | Very Highly Relevant |
| Effectiveness | 4.97 | Very Highly Effective |
| Overall Mean | 4.78 | Very Highly Acceptable |

**Table 3. Difference between the Pre-test and Pupils-test of Grade 3 pupils**

| Variable | Mean | t- value | t-critical @5% level | Remarks |
|---|---|---|---|---|
| Pretest Scores | 13.88 | | | |
| Posttest Scores | 18.40 | 12.22 | 1.98 | There is a significant difference |
| Mean Difference: 4.52 | | | | |

The statements are the following: the videos have achieved the topics in the K to 12 basic education curriculum; the videos can further enhance awareness of natural disasters. The videos contain interesting details that promote the attention of the learners. This finding is supported by Benson 2015, who emphasized that blended learning should be the primary focus of a learning institution. He went on to explain that Video On Demand (VOD) is one of the new strategies being implemented in the classroom in the hopes of freeing up classroom time and encouraging greater student engagement. This is also supported by Aloraini 2012, who demonstrates that using multimedia in education is an effective way of improving learning. The animated videos, on the other hand, must be more interactive because the value of video for learning effectiveness is dependent on interactivity (Zhang, 2006). He further said that students who used an e-learning environment with non-interactive video did not fare any better. Irene 2012 also emphasized that time allocation and frequency of using video programs enhance the academic achievement of lower primary school pupils. He also recommends the training of teachers for them to employ appropriate skills in using video programs.

Table 2 shows the extent of MTB_MLE educational videos' acceptability, usability, relevance, and effectiveness. Results revealed that the validators rated the extent of acceptability of the video tutorials very highly acceptable, usable, relevant, and effective with the means of 4.83, 4.83, 4.73, and 4.97, respectively, with an overall mean of 4.78. In terms of acceptability, the videos got a mean of 4.83, defined as very highly acceptable. Five statements acquired the same rating. The contents of the videos are acceptable as they provide systematic explanations that are aligned with K–12 curriculum guide; the contents of the videos are acceptable and appropriate to the level of understanding of the students, and the concepts of the educational videos are appropriate and accurately explained.

They are free from grammatical errors; the videos capture the main objective and are acceptable to learners of different learning styles that accelerate their academic performance among them. Moreover, the video is a creative approach that allows the viewer to understand the video the vital concept worth remembering likely watching the video has the greatest influence on the learning process. In relation to usability, the videos got a mean of 4.83, which is described as very highly usable. The three (3) statements got the same rating of 5.0, which was described as very highly usable. These statements were the following; the videos are innovative materials useful to reinforce students learning; the content of the videos may be used as a tool in helping viewers understand series of concepts worth remembering and lastly, the videos are suitable to students' learning styles and preferences. Hence these are useful to both learners and teachers. The other statements were; the videos may be used to maximize students' learning. Thus, these are beneficial to both learners and teachers in developing comprehension skills and bridging the learners to learn the other languages. The overall message of the videos is comprehensive and valuable to enhance student learning. The usability of the videos is rated an overall weighted mean of 4.83, which is very highly usable.

In relation to relevance, the videos got a mean of 4.73, described as very highly relevant.Specifically, the contents of the videos are essential to students since they provide relevant discussion to the subject matter got 4.83 mean. Secondly, the video can be considered as an important tool to achieve better retention of students learning for it has also a mean of 4.83. The video is important because it reinforces or supplements concepts in mother tongue multilingual education necessary for mastery. However, overall discussion in the video provides substantial explanation and gives clear discussion of the subject matter has WM= 4.67. Meanwhile the statements; as a whole, the videos are considered valid, effective, relevant and useful to both students and teachers got 4.5 weighted mean. The video got an overall mean of 4.97, inferred as very highly effective in terms of effectiveness. Four of the statements have the same weighted mean of 5.0, which is very highly relevant. These are the first, third, fourth, and fifth statements which are: the content of the videos may help students acquire a better understanding of the lesson; the videos presented are effective supplementary materials for reinforcement and application of new learning; the overall discussions of the video presented are effective in enhancing students learning; and as a whole, the videos are considered valid, effective, relevant and valuable to both students and teachers. On the other hand, the video will aid the student in developing their critical thinking skills, the weighted mean is 4.83. The very highly effective rating indicates that using a video for teaching instruction is relevant in developing learners' comprehension skills.

This denotes that the videos are supplemental materials for Mother - tongue Based Multilingual Education that develop pupils' critical thinking and comprehension skills with different learning styles, thus helpful to both learners and teachers. This finding is consistent with Guo 2014, who stated that videos are widely used as online learning resources around the world. He even said that video production has an impact on student engagement. This is also supported by Bello (2012), who stated that educational material in animated videos in the local language is a pioneer solution to some of the needs that people face in rural areas due to a lack of information. According to FELM 2017, using mother tongue helps children adjust to new

school environment and makes the transition from home to school more natural. As a result, learners' academic performance and learning quality improved.. Furthermore, MTB-MLE gives all children the right to quality education in their mother tongue. Based on the Table 3, the mean pre-test scores of the grade three learners were 13.88, while the mean post-test scores were 18.4. This yielded a mean difference of 4.52. Using t-test scores for dependent samples, the obtained t-calculated was 12.22, and the-critical @ 5% level was 1.98. Since the t-critical @ 5% level <.05, then there was a significant difference between the pre-test and post-test scores of the learners. The above result implies that performance significantly improved when those learners were exposed to educational videos on Mother Tongue Based Multilingual Education such as Disaster Awareness. This is shown by the increase in their post-test scores. A possible explanation for this is that the integration of ICT in delivering lessons through educational videos helped increase learners' interest in the subject, which contributed to improved performance in the post-test. This finding affirms the study of Robles (2016) that educational video is effective in the learning process because it boosts interest and helps them improve academically (Linden, 2003) also asserts that information technology could facilitate skill acquisition for low literate learners.

## Conclusion

- Animated videos improved curriculum delivery.
- Animated videos using Mother Tongue improved the acquisition of knowledge, skills, and values among learners.
- Mother Tongue animated videos help achieve inclusive education and Education For All (EFA) and to preserve linguistic and cultural diversity.

## Recommendations

- The development of Mother Tongue animated videos in other indigenous and trial groups must be considered.
- For duplication of these videos as a learning tool, further development on how to overlay voice in different languages may also be considered.
- Videos must also be validated by the MDRRM to be used as a learning tool for the vulnerable community.
- The developed videos may be submitted to DepEd Regional office's MTB-MLE and Learning Resources Management and Development System (LRMDS) for accreditation and endorsement to be used as supplemental learning materials.
- The videos may also be submitted to the local DRMM office to be used as supplemental materials in the campaign for disaster preparedness in most vulnerable areas in the locality.

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## Glossary of Abbreviation

**CHED** - Commission on Higher Education
**DepED** - Department of Education
**DRR** - Disaster Risk Reduction
**DRRM** - Disaster Risk Reduction Management
**EFA**- Education for All
**ICT** - Information and Commutication Technology
**LRMDS** - Learning Resources Management and Development System
**MDRRM** - Municipal Disaster Risk Reduction Management
**MTB-MLE** - Mother tongue Based Multilingual Education
**RA**- Republic Act
**TESDA** - Technical Education and Skills Development Authority
**VOD**- Video on Demand

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