# Implementing Malay Gamelan Module through Digitalization

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Keywords: Malay Gamelan, ADDIE, module, technology, digitalization, teaching and learning.

Abstract: The purpose of this study is to design a module of Malay gamelan playing using technology as the medium of teaching and learning. This research will look into three objectives: a) identify the content for the digital instructional Malay gamelan module; b) design the digital instructional Malay gamelan module; and c) evaluate the usability of the digital instructional Malay gamelan module. ADDIE model of instructional design will be used to help ensure the efficiency of designing this Digital Instructional Teaching and Learning module. Respondents for this research consist of Malay gamelan teachers, and students. At the end of the research, a module consisting of units of Malay gamelan teaching and learning instructional design will be developed to provide a reference to learners who wish to learn in a more systematic approach through technology. This research will benefit students and teachers in school, allowing for more fun and effective learning.

## 1 INTRODUCTION

In learning in the 21st century, developments in technology offer new opportunities to design new products and services. Thus, technology has also become a platform for learning and innovation, to help in teaching and learning especially in schools. Classroom learning is designed as to provide students with a more interactive approach rather than teacher-centered learning. According to Williams and Renna (2016), the evolution of technology must not be ignored but should instead be embraced. With the current advancements in technology, individuals have been able to indirectly learn new knowledge and understanding through the devices they possess and use. Learning in the 21st century should be fun and creative. With the latest 21st century, learning (Pembelajaran abad ke-21[PAK]) proposed by the Malaysian government, another stage or standard of learning should "colour" the scope of teaching and learning through technology. According to Abdul Halim & Nur Hanani (2017), the new generation Z has an attachment to media and technology. This has given a substantial impact on the education system. Therefore, learning in the 21st century is grouped into four categories: a) student-centered learning; b) collaborative learning; c) contextual learning; and d) integration with society. With these new approaches in teaching and learning, the classroom environment needs to become more "friendly" and comfortable to its learners.

### 1.2 Problem Statement

Based on the observation conducted by the researcher, there is still no formal Malay gamelan teaching and learning module that is packaged through technology. Learning still very much through hands-on and books, which are not standardized. The current Standard Kurikulum dan Pentaksiran (DSKP) for Kurikulum Standard Sekolah Menengah (KSSM) for Lower Secondary School in Malaysia does not emphasize the learning of Malay gamelan but rather gives options to schools to choose what ensemble they would like to learn. Examples of these ensembles are Angklung, Cak Lempong, Dikir Barat, Western Orchestra, Chinese Orchestra, Rebana Ubi and many other. The e-module book produced in this study will be a stepping-stone for learners to learn playing the Malay gamelan at any time and place, where it will guide them to learn to play based on standards of difficulty.

### 1.2 Research Objective

The purpose of this study is to create Digital Instructional Teaching and Learning Modules for use in the Malay gamelan course offered for Malaysian

public schools. There are three research objectives, which are to: a) Identify the content in the digital instructional Malay gamelan module. b) Design a digital instructional Malay gamelan module. c) Evaluate the usability of the digital instructional Malay gamelan module.

## 1.3 Research Question

a) What are the contents of the digital instructional Malay gamelan module? b) How is the digital instructional Malay gamelan module designed? c) How can the usability of digital instructional Malay gamelan module be evaluated?

## 2 LITERATURE REVIEW

In the late 1990s, the curriculum known as Kurikulum Bersepadu Sekolah Menengah (KBSM) was introduced to public secondary schools in Malaysia where a section in the curriculum stated that the introduction of music ensemble playing needs to be implemented. Hence, Malay gamelan was introduced, alongside other music ensembles such as Kompang and Cak Lempong. Learning traditional music is crucial, as it is different from learning formal western instruments. There was no standardization of notes and techniques of teaching the instrument. With a proper module of teaching and learning, there will be better focus in the teaching of Malay gamelan, aided by the use of the sources and materials.

In 21st century learning, there has been paradigm shift where the emphasis in teaching and learning focuses more on students rather that teacher (Donnelly & Fitzmaurice, 2005). The authors also mentioned that the shift also affected the curriculum design, especially in the emphasis on learning from knowledge, skills and competencies within courses and modules. However, because of the demands of education in the 21st century, including differences in student learning styles and changes in standards and policies, music educators need to be able to document and express ways in which their instructional practices support the framework. Abdul Halim & Nur Hanani (2017) mentioned that, in 21st century learning, the new generation Z has an attachment to media and technology. Thus, an approach of digital teaching and learning will be used in assisting learners in learning how to play Malay gamelan. This will help learners in a more creative and fun way of learning. According to Renton School District (n.d.) digital learning is an instructional practise that uses technology effectively, where it will strengthen

students' learning experiences and encompass a wide spectrum of tools and practices.

ADDIE model will assist in the process of creating the module step by step. In addition, secondary materials such as journals, articles and examples of modules will be used to help in creating the proposed module. Educators such as Black (2003), Khalil (2017), and many other researchers such as Sumarsam (2002) have come up with simple lessons on learning traditional instruments, as well as information on and the history of gamelan. This module will look into the effectiveness of self-learning that enables learners and teachers to teach or learn, step by step, and gradually progress to the next level through technology. As learning in the 21st century should be based on technology, Abdul Halim & Nur Hanani (2017) mentioned that the approach of learning could be grouped into four categories as mentioned before. These approaches can give students choices in exploring and collaborating in learning. Critical thinking was embedded, where children need to be able to think out of the box. According to Watanabe-Crockett (2016), students in the 21st century need to think and work creatively in both digital and non-digital environments. The process will actually produce unique and useful solutions.

## 3 METHODOLOGY

### 3.1 Research Design

A quantitative approach will be use in this research to build a teaching and learning of Malay Gamelan. Demonstration of the playing will recorded and transferred to video digital learning modules for students in the classrooms. Several units in the module will be validate by gamelan expert in the process of the module development. The significant of the digital instructional teaching and learning were to conduct through questionnaires using Likert scale. An identified class chosen will evaluate the module once it is completed.

### 3.2 Subject

A group of secondary students with no background of Malay gamelan playing will participate in the designed units. The module used by the researcher is a module built in her previous research. It will then be transferred to an e-module after it has been carefully analyzed, designed, and developed). Next, it will be validated (implement the e-module in the

students' learning). Finally, a survey will be carried out through evaluation.

## 3.3 Research Instruments

ADDIE model of Instruction Design will be a framework used in designing and developing the educational program for this research. ADDIE stands for Analyze, Design, Development, Implement, and Evaluation. According to Kurt (2017), educators and others find that having stages of ADDIE clearly defined facilitates the implementation of an effective training tool. ADDIE by Kurt are used to explain the researcher's steps:

Analyze: The researcher will identify groups of secondary school students who are learning Malay gamelan for the first time to participate in the research. Design: The researcher will look for existing Malay gamelan modules for beginners and to plan what is to be instructed in this stage. Development: The researcher will compile the information gained and use it for this stage. A quantitative method will be used in the research. The gained information will then be transformed into digital instructional teaching and learning module. Implementation: In this stage, the researcher will still be looking for the best teaching and learning materials, to modify and to edit as needed. Evaluation: Evaluation of the summative and formative phases of the product will be tested in this stage. Feedback given by the students through the questionnaires and observations on the module will later be incorporated in the improvements to be made and be further refined at the end of the project. Kuala Lumpur.

## 4 CONCLUSIONS

This research hopes to share the new approach in teaching Malay gamelan through technology. With the integrated learning in both old and new traditions, it flows along way the evolution in teaching and learning. Thus, Malay gamelan will not extinct but new approaches to teach this ensemble varies through years. Be advised that papers in a technically unsuitable form will be returned for retyping. After returned the manuscript must be appropriately modified.

## ACKNOWLEDGEMENTS

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