

**UNIVERSITI TEKNOLOGI MARA**

**AN OBJECTIVIST-  
CONSTRUCTIVIST BLENDED  
APPROACH: IMPLICATIONS ON  
STUDENT ACHIEVEMENT AND  
SATISFACTION IN MALAYSIAN  
UNIVERSITY-LEVEL BEGINNER  
STRING TECHNIQUE CLASSES**

**SHAFIZAN BIN SABRI**

Thesis submitted in fulfilment  
of the requirements for the degree of  
**Doctor of Philosophy**

**Faculty of Music**

June 2016

## ABSTRACT

This study explores the impact of blended-approach teaching on students' achievement and satisfaction in a Malaysian university-level beginner string classes. Specifically, this study incorporated a blended objectivist–constructionist approach, together with Dick and Carey's (Dick, Carey and Carey, 2005) instructional design system, to create instructional materials for beginner string technique class. Researchers in general concur that the objectivist and constructivist approaches positively affect the teaching and learning process in the music classroom. Specifically, the constructivist teaching strategy of modeling, communication, exploration, and experimentation has been proven effectual in enhancing students' achievement and potential. Hence, these teaching strategies were incorporated into the blended approach to put together innovative instructional materials for teaching beginner string ensembles. This research used a non-equivalent control group post-test under a quasi-experimental design. The sample of the study consisted of 40 music students from two public universities in Malaysia. None of the students had had any prior instrumental music training. The students were purposively allocated to one of the two instructional material; these were (a) an experimental group that were subject to the blended approach, using instructional materials based on Dick and Carey (Dick, Carey and Carey, 2005) ;and (b) a control group that received conventional teaching via instructional materials based on printed method books. Following the 14-week treatment, the students completed an achievement test, performance assessment, and satisfaction survey. The achievement test was constructed to evaluate the students' cognitive aspects. Meanwhile, the performance assessments were psychomotor tasks designed to evaluate what the students were able to do. The satisfaction survey provided feedback from each student on the effectiveness of both instructional materials. The results revealed that blended-approach instructional material had a positive impact on students' achievement, as shown by the achievement test. A Mann–Whitney U test revealed a significant difference between the two groups, with the experimental group demonstrating superior achievement compared to the control group ( $U = 124.5$ ,  $p = .04$ ). Statistical analysis conducted on group mean scores in the total score for the performance assessments showed that the blended approach teaching material group scored highest. A t-test revealed this difference not to be statistically significant ( $t = .971$ ,  $p = .338$ ). However, statistical analysis conducted on the total ordinal score of the student satisfaction surveys revealed that the conventional teaching group scored higher in terms of total ordinal score. This difference was found not to be statistically significant via a Mann–Whitney U test ( $U = 153.0$ ,  $p = .203$ ). The results of this study suggest that both instructional materials, blended-approach teaching material, and conventional teaching materials have comparable effects on students' achievement and music performance skills. Given that teaching music is a multidimensional process, several approaches ought to be implemented together in order to provide the most appropriate environment for learning. A combination of blended-approach and conventional teaching materials may create a plethora effect in teaching university-level beginner string technique classes.

## ACKNOWLEDGEMENTS

I am deeply grateful to Allah S.W.T for giving me the strength to endure this revealing and arduous journey for the past four and a half years. The completion of this study would not have been possible without the help and support of many people. I would like to take this opportunity to offer my sincere and grateful appreciation to the many people who were involved in this study. I am deeply grateful to my research supervisor Assoc. Prof. Dr. Shahanum Mohd Shah, and co-supervisor, Assoc. Prof. Dr. Tazul Izan Tajudin, who sensitively guided the progression of this study from a tangle of unfocused ideas to a completed research project. Your expertise and passion for research have made this an enjoyable process and something I hope to continue.

To my parents, Haji Sabri Yahya, and Hajjah Che Su Othman, for their love and support in all of my musical endeavours and throughout my education.

To my loving wife, Nur Ima Mohd Yusop, for her love, caring, patience, encouragement and moral support. To my three wonderful children, Arman Mukhlis, Imran Mustaqim and Nur Iman Balqis, for their unwavering support under the strenuous schedule and conditions during the time of my studies.

The support of family members is never measurable. Thank you Shahidi Sabri, Jasmin Sabri and Shafrin Sabri, for supporting through their prayers and words of encouragement.

I also would like to express my gratitude to the Dean of Faculty of Music, Universiti Teknologi MARA and Dean of Faculty of Music and Performing Arts, Universiti Pendidikan Sultan Idris for providing the knowledge, facilities and assistance.

Special thanks to my colleagues and friends at Faculty of Music and Performing Arts, Universiti Pendidikan Sultan Idris who supported me throughout the course of this doctorate study. I am thankful for their aspiring guidance, invaluable constructive criticism and friendly advice during the study. I am sincerely grateful to them for sharing their truthful and illuminating views on a number of issues related to the study.

My sincere thanks to each faculty and staff member at Universiti Teknologi MARA for their friendship, help and enjoyable collegiate interactions during the years I was at Shah Alam for the degree.

My appreciation goes to Prof. Dr. Yusup Hashim, Prof. Dr. Wilfred Gruhn, Mr. Mohd Nizam Attan, Mdm Mayya Musaeva and Assoc. Prof. Hanafi Imam for their time spend and expertise.

To all of the students of the two universities with whom I had the great pleasure of working and not forgetting the students who participated in my pilot class. Each of you provided me with many moments of inspiration.

# TABLE OF CONTENTS

|  | <b>Page</b> |
|--|-------------|
| <b>CONFIRMATIONS BY PANEL OF EXAMINERS</b>                   | ii          |
| <b>AUTHOR'S DECLARATION</b>                                  | iii         |
| <b>ABSTRACT</b>  | iv          |
| <b>ACKNOWLEDGEMENT</b>                                       | v           |
| <b>TABLE OF CONTENTS</b>                                     | vi          |
| <b>LIST OF TABLES</b>  | x           |
| <b>LIST OF FIGURES</b>                                       | xiv         |
| <br>   |             |
| <b>CHAPTER ONE: BACKGROUND OF THE STUDY</b>                  | <b>1</b>    |
| 1.1 Introduction   | 1           |
| 1.1.1 Overview of Research in Teaching String Classes        | 1           |
| 1.1.2 String Instrument Performance and the Music Experience | 3           |
| 1.2 Problem Statement  | 4           |
| 1.3 Objectives of the Study                                  | 6           |
| 1.4 Research Questions and Hypotheses                        | 7           |
| 1.4.1 Research Questions                                     | 7           |
| 1.4.2 Research Hypotheses                                    | 8           |
| 1.4.3 Identification of Variables                            | 9           |
| 1.4.4 Conceptual Framework                                   | 10          |
| 1.5 Theoretical Perspective                                  | 10          |
| 1.6 Instructional Design Principles and Theories of Learning | 14          |
| 1.6.1 Learning Theories                                      | 14          |
| 1.6.2 The Practice of Instructional Design                   | 15          |
| 1.6.3 Application of Learning Theory in Instructional Design | 17          |
| 1.6.4 Components of Instructional Design                     | 18          |
| 1.6.5 Teaching Strategies                                    | 19          |
| 1.7 Significance of the Study                                | 24          |
| 1.8 Research Limitations                                     | 25          |
| 1.9 Definitions of Terms                                     | 26          |

|  |     |
|--|-----|
| 1.10 Organization of Dissertation  | 28  |
| <b>CHAPTER TWO: LITERATURE REVIEW</b>  | 29  |
| 2.1 Introduction   | 29  |
| 2.2 Learning Theories  | 31  |
| 2.2.1 Overview of Learning Theory  | 31  |
| 2.2.2 Review of Related Studies  | 37  |
| 2.2.3 Instructional Theories   | 47  |
| 2.3 Instructional Design   | 49  |
| 2.3.1 The Concept of Instructional Design  | 49  |
| 2.3.2 The ADDIE Framework  | 49  |
| 2.3.3 Instructional Design Model   | 51  |
| 2.3.4 Learning Theories and the Practice of Instructional Design                           | 58  |
| 2.3.5 Related Studies Concerning Instructional Design in Higher<br>Education               | 61  |
| 2.3.6 Related Studies Concerning Instructional<br>Design in Music Education                | 63  |
| 2.3.7 Related Studies Concerning Application<br>of Learning Theory in Instructional Design | 68  |
| 2.4 Components of Instructional Design System  | 76  |
| 2.4.1 Overall Structure of Instrumental Lesson   | 76  |
| 2.4.2 Student Learning Style   | 82  |
| 2.4.3 Teaching Style   | 90  |
| 2.4.4 Printed Method Book for Teaching String  | 97  |
| 2.5 Teaching Strategies  | 101 |
| 2.5.1 Related Studies Concerning Teaching<br>Beginning String Technique Classes            | 101 |
| 2.5.2 Modeling   | 110 |
| 2.5.3 Related Studies Concerning Modeling<br>in Music Education                            | 112 |
| 2.5.4 Communication  | 121 |
| 2.5.5 Related Studies on Communication<br>in Music Education                               | 122 |
| 2.5.6 Exploration  | 127 |