

UNIVERSITI TEKNOLOGI MARA

**DESIGN AND DEVELOPMENT OF
SUPER OA JOURNEY:
A VOCABULARY LEARNING VIDEOGAME
TO ENHANCE THE ENGAGEMENT
OF *ORANG ASLI* LEARNERS IN
THE ESL CLASSROOM**

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ABSTRACT

The initiative to achieve equitable student outcomes by leveraging Information and Communications Technology (ICT) in scaling up the quality of learning has been among the shifts to transform Malaysian education system as documented in Malaysia Education Blueprint 2013-2025. In response to the prolonged outcry over the extreme deficiency of English as a Second Language (ESL) mastery among the aboriginal learners, an intervention program as undertaken in this study was deemed necessary. The study aimed to design, develop and evaluate a learning videogame meant to enhance the engagement of *Orang Asli* learners in ESL classroom. The developmental methodology underpinning the study was concerned with developing research and theory-based design guidelines and negotiating the ‘best’ design strategies. Hence, a modified four-phase ADDIE framework was employed to describe design decisions and evaluate the learning videogame with active involvement of the targeted learners, teachers teaching them and panel experts: analysis (48 learners, 16 teachers and 8 computer technicians), design (10 learners and 6 experts), development (3 learners and 94 experts) and evaluation (72 learners and 18 teachers). Grounded by the methodology of design and development research, the study utilized mixed-method data collection tools and techniques in gathering the required data: archival record, close- and open-ended questionnaires, focus group and individual interviews, one-to-one and small group evaluations, and testimonials. The data generated from the different research instrumentations and data gathering techniques were collated, objectively analyzed, and synthesized in pragmatic manner to refine the set forth design guidelines and strategies followed by a series of improvements on the learning videogame. Results in the summative evaluation phase were divided into two perspectives: the targeted learners and teachers. The former claimed that the developed learning videogame has engaged them in vocabulary learning. The mean value of the total mean scores across the items ($M=4.34$) points to the learners’ fairly high positive agreement on the elements related to engagement. As for the latter, their testimonials imply the effectiveness and value of the learning videogame: a mirror of contemporary pedagogy, effective approach in vocabulary learning, heighten learners’ interest, enhance learners’ psychomotor skills and cognitive thinking, impactful minimalist elements, and well configured ratio of learning contents to fun elements. The study also confirmed that aspects pertinent to cultural entailments, learner familiarity to the system, environmental constraints, game design complexity and curriculum relevance are deemed as the most crucial predictors for successful implementation of learning videogame development.

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TABLE OF CONTENTS

	Page
CONFIRMATION BY PANEL OF EXAMINERS	ii
AUTHOR’S DECLARATION	iii
ABSTRACT	iv
ACKNOWLEDGEMENT	v
TABLE OF CONTENTS	vi
LIST OF TABLES	xii
LIST OF FIGURES	xvii
LIST OF ABBREVIATIONS	xx
CHAPTER ONE INTRODUCTION	1
1.1 Overview	1
1.2 Background of the Study	2
1.3 Statement of the Problem	8
1.4 Conceptual Framework of the Research	14
1.5 Purpose of the Research	19
1.6 Objectives of the Research	20
1.7 Research Questions	20
1.8 Limitations of the Research	22
1.9 Importance of the Research to Students	23
1.10 Importance of the Research to ESL Teachers	24
1.11 Importance of the Research to the Ministry of Education Malaysia (MOE)	25
1.12 Operational Definitions	26
1.12.1 Orang Asli Learners	26
1.12.2 Game Courseware	27
1.12.3 Vocabulary Learning	27
1.12.4 Response/Reaction	27
1.12.5 ADDIE	28
1.12.6 Design Guidelines/Principles	28
1.12.7 Design Strategies	28

CHAPTER ONE

INTRODUCTION

1.1 Overview

This chapter introduces a study that addresses a development effort to produce an alternative, engaging, and fun differentiated learning resource for *Orang Asli* to be utilized into mainstream lessons. Such effort is conceived as a means to constructively respond to the perplexing phenomena of extreme deficiency of English as a Second Language (ESL) mastery among the majority of aboriginal learners in comparison with their fellow counterparts of other races. Very remote geographical settings they reside in, living in villages deep in the Malaysian tropical rain forest and having a fusty attitude (Rusaslina Idrus, 2011; Suria Selasih Angit Asra Ramlan, 2020) towards the importance of education to climb up the socio-economic ladder, have been among the main reasons that contribute to their below-par academic results for generations.

With the promise to bridge the large development and digital gap between *Orang Asli* and other races, the former have been receiving special treatment from Malaysian government since the establishment of the Department of *Orang Asli* Development (JAKOA) in 1939 (Renganathan, 2016). *Orang Asli* children are given extra attention by the Ministry of Education (MOE) as well. Unlike other indigenous people and other races of Malaysians, they receive full-scale subsidies ranging from clothes, foods, hostel accommodation, monthly allowance, and schooling stipend as long as they are willing to stay at hostels (if their houses are too far from schools) and come to schools. Their parents even get ‘allowance’ every year for sending out their children to school, paid based on a per child basis.

The proliferation of technological advancement in recent years that has transformed humankind in many facets of life seemingly does not give *Orang Asli* much impact in lending support as far as education is concerned. In spite of receiving myriad ways of assistance from the government over the past half-century, be it in the form of finance, infrastructures, logistics, access, and morale, their overall academic performance is still below satisfactory level. Reflecting on their profiles as ESL learners through the lens of a teacher teaching this group of learners for nine years, the researcher would view them as the most obedient yet passive students he has ever handled. Their