## UNIVERSITI TEKNOLOGI MARA

# AN EXPLORATORY STUDY OF TEACHERS' ICT COMPETENCY AT RURAL PRIMARY SCHOOL IN SABAH

### MOHAMAD ASRI BIN JUMIN

Report submitted in partial fulfillment of the requirements for the degree of

Master of Science in Information Technology

Faculty of Computer & Mathematical Sciences

January 2015

#### **ABSTRACT**

This study attempts to explore the teachers' level of ICT competency, the obstacles or challenges that hindering them to use of ICT in classroom and the factors that contribute to ICT competency by the in-service teachers in rural primary schools. Previous studies have found that the level of ICT competency of teachers in Malaysia was at the unsatisfactory level. This study employed the exploratory descriptive design which adopting quantitative as research approach. A survey questionnaire was conducted involving 114 in-service teachers at the eleven (11) rural primary schools in Ranau, Sabah. To support the finding in the survey, a simple observation also has been conducted. The finding of this study informed that these teachers' skills or competency in the usage of ICT was low but the teachers' perception on the obstacles that hinders them to use ICT in classroom was low. This means that they have a very high desire to integrate the ICT in classroom regardless the obstacles they are facing. This study also proved that to acquire or obtain skills in using ICT depending on collective factor such as support from the management, the teacher's desire or willingness to learn, the effective training and so on that related to the factor that contribute in build up the teachers competency in ICT.

#### **ACKNOWLEDGEMENT**

In the Name of Allah, the Most Gracious, the Most Merciful

First and foremost, praise to Allah for His Almighty and His utmost blessing for giving me this opportunity to pursue my study and was able to complete this study.

I would like to give my deepest gratitude to my supervisor, Puan Suzana binti Zambri, for her invaluable guidance, opinions and generous help throughout the entire process of completing this study. Without her, I won't be able to complete this study according to the requirement. Thank you very much.

I wish to thank to all the respondents that willing to spend their time to answer the survey in order for me to complete this study.

May I also express my gratefulness to Dr Emma Nuraihan binti Mior Ibrahim for the guidance in order for me to initiate this study and my classmates for their encouragement and supports throughout the master programme.

Last, but not least, I am greatly indebted to my late father, my mother, my wife and my siblings for their inexhaustible support.

## **TABLE OF CONTENTS**

		Page
AUT	HOR'S DECLARATION	i.
ABSTRACT		ti
ACK	NOWLEDGEMENT	iii
TABLE OF CONTENTS		iv
LIST OF TABLES		vii
LIST	OF FIGURES	ix
CHA	PTER ONE: INTRODUCTION	
1.1	Background of Study	1
1.2	Problem Statement	2
1.3	Research Aim	3
1.4	Research Question	3
1.5	Research Objective	4
1.6	Scope	4
1.7	Significance of the Study	5
1.8	Research Design Summary	6
1.9	Report Outline	7
CHA	APTER TWO: LITERATURE REVIEW	
2.1	Introduction	8
2.2	Teachers' ICT Competency	8
2.3	Challenges in Using ICT in Learning and Teaching	11
2.4	Factors That Contribute To ICT Competency	12
2.5	ICT Adoption in Malaysian Education	14
2.6	Understanding ICT in Malaysian Education	15
2.7	ICT Competency in Rural Area of Malaysia	16
2.8	Conceptual Framework	17
2.9	Summary	18

## CHAPTER THREE: RESEARCH METHODOLOGY

3.1	Introduction	19
3.2	Research Approach	19
	3.2.1 Exploratory Descriptive Design	19
3.3	Research Framework	20
	3.3.1 Phase 1: Research Planning	20
	3.3.2 Phase 2: Information Gathering	21
	3.3.2.1 Questionnaire	21
	3.3.2.2Observation	23
	3.3.2.3Population and Sampling	24
₹-	3.3.2.4Reliability and Validity	25
	3.3.2.5Data Collection Procedure	25
	3.3.2.6Data Collection Instrument	25
	3.3.3 Phase 3: Result & Discussion	26
	3.3.4 Phase 4: Documentation	26
3.4	Summary	26
`		
CHA	APTER FOUR: RESULT AND DISCUSSION	
4.1	Introduction	27
4.2	Demographic	27
4.3	Research Objective 1: Teachers' ICT Competency Level	33
	4.3.1 Test of Independence	39
4.4	Research Objective 2: Obstacles to Using ICT in Teaching and Learning	42
4.5	Research Objective 3: Factors That Build Up ICT Competency	44
4.6	Observation	46
4.7	Summary	47
CHA	APTER FIVE: CONCLUSION AND RECOMMENDATION	
5.1.	Introduction	49
5.2	Review of Objectives	49
5.3	Contribution of the Study	51
5.4	Limitation	52