



05-4506832



pustaka.upsi.edu.my



Perpustakaan Tuanku Bainun
Kampus Sultan Abdul Jalil Shah



PustakaTBainun



ptbupsi

TEACHING AND TESTING SCIENCE SUBJECT IN THE ENGLISH LANGUAGE: A CASE STUDY OF PMR STUDENTS



05-4506832



pustaka.upsi.edu.my



Perpustakaan Tuanku Bainun
Kampus Sultan Abdul Jalil Shah



PustakaTBainun



ptbupsi

KRISHNASAMY A/L P.S.RAMASAMY

UNIVERSITI PENDIDIKAN SULTAN IDRIS

2008



05-4506832



pustaka.upsi.edu.my



Perpustakaan Tuanku Bainun
Kampus Sultan Abdul Jalil Shah



PustakaTBainun



ptbupsi



05-4506832



pustaka.upsi.edu.my



Perpustakaan Tuanku Bainun
Kampus Sultan Abdul Jalil Shah



PustakaTBainun



ptbupsi

TEACHING AND TESTING SCIENCE SUBJECT IN THE ENGLISH LANGUAGE : A CASE STUDY OF PMR STUDENTS

KRISHNASAMY A/L P.S.RAMASAMY



05-4506832



pustaka.upsi.edu.my



Perpustakaan Tuanku Bainun
Kampus Sultan Abdul Jalil Shah



PustakaTBainun



ptbupsi

**LAPORAN PROJEK DIKEMUKAKAN BAGI MEMENUHI
SYARAT UNTUK MEMPEROLEHI IJAZAH
SARJANA PENDIDIKAN**

**FAKULTI BAHASA
UNIVERSITI PENDIDIKAN SULTAN IDRIS
2008**



05-4506832



pustaka.upsi.edu.my



Perpustakaan Tuanku Bainun
Kampus Sultan Abdul Jalil Shah



PustakaTBainun

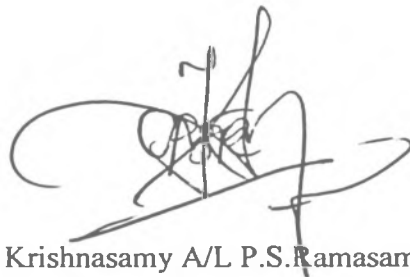


ptbupsi



PENGAKUAN

Saya mengaku disertasi ini adalah hasil kerja saya sendiri kecuali nukilan dan ringkasan yang setiap satunya saya jelaskan sumbernya.



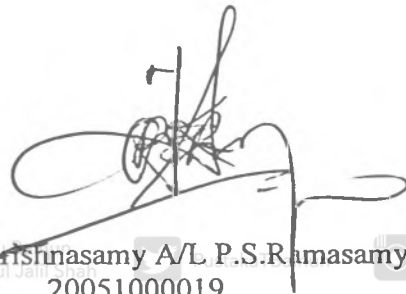
Date: 23 OCTOBER 2008

Krishnasamy A/L P.S. Ramasamy,
20051000019



DECLARATION

I hereby declare that the words in this dissertation is my own except for quotations and summaries which have been duly acknowledged.



Date: 23 OCTOBER 2008

Perpustakaan Tuanku Bainun
Kampus Sultan Abdul Jalil Shah

Krishnasamy A/L P.S. Ramasamy,
20051000019

ptbupsi



ACKNOWLEDGEMENT

My sincere appreciation and thanks to the Principal of Sekolah Menengah Kebangsaan Methodist(ACS), Sitiawan, Encik Ho Oon Tian, the Senior Assistant, the Form Three English teachers and the respondents for their warm and never ending assistance during the course of gathering findings for this coursework study.

I would also like to express my gratitude and appreciation to my respected lecturer, Dr. Nor Hashimah Isa for her endless efforts and invaluable guidance and encouragement in enabling me to complete my project paper for the course BIT 6006 successfully.

Finally, my heartfelt thanks to my dearest wife and my three children for their love, patience and endurance.





ABSTRAK

Kajian ini bertujuan untuk mengenal pasti pelbagai kemahiran bahasa yang digunakan oleh pelajar tingkatan tiga di kawasan separa Bandar dalam aspek-aspek seperti 'scan', 'skim', mencari informasi, meramal, inferens dan sebagainya sepertimana terkandung dalam sukatan kurikulum tingkatan tiga. Kajian ini dapat membantu golongan pendidik khususnya guru untuk merancang program khas dan strategi mengajar untuk membantu pelajar mengatasi kelemahan dalam meningkatkan proses pengajaran dan pembelajaran mata pelajaran Sains disamping mengukuhkan keberkesanan penggunaan Bahasa Inggeris dalam mata pelajaran tersebut.





ABSTRACT

This is a study to determine the different language skills employed by Form Three semi-urban school students in terms of scanning, skimming, locating information, predicting, understanding, sequencing, inferencing, and all the other related reading skills as listed in the form Three Curriculum Specifications. The findings will provide an insight on the effectiveness of using either Bahasa Malaysia or English Language by the Form Three students in learning and using their skills in answering the Science examination paper in their PMR examination. This insight study will also enable educationists and teachers to tailor special programmes and teaching strategies to help remedy students' weaknesses in improving the teaching and learning process of the Science subject and also to reaffirm the effectiveness of teaching the subject in English Language.



TABLE OF CONTENT

CONTENT	PAGE
PENGAKUAN	i
DECLARATION	ii
ACKNOWLEDGEMENT	iii
ABSTRAK	iv
ABSTRACT	v
TABLE OF CONTENTS	vi
LIST OF TABLE	viii
 CHAPTER ONE	
 INTRODUCTION	
1.1 Introduction	1
1.2 Statement of the problem	4
1.3 Research questions	5
1.4 Significance of study	6

REVIEW OF THE RELATED LITERATURE

2.1 Introduction	7
2.2 Implementation of teaching Mathematics and Science in English	8
2.3 Issue, Challenges and Prospects	23
2.3.1 Low English Proficiency of Pre-Service English language Teachers	23
2.3.2 The Existing Shortage of Proficient English Language Teacher	24
2.3.3 The Frequent Change in Educational Policy	25
2.3.4 Lack of English Proficiency among Lecturers	27
2.3.5 Lack of Professional Knowledge and General Knowledge	28
2.3.6 Self-Esteem in Pre-Service English Language Teachers	29
2.3.7 Illiteracy in Electronic Delivery of Course Materials and Computer Mediated Communications.	30
2.3.8 Pre-Service English language Teachers-The issue of Gender and Ethnicity.	32
2.3.9 Lack of accountability among the Pre-Service teachers.	35

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1	Description of Research and Methodology	37
-----	-----------------------------------------	----

CHAPTER FOUR

DATA ANALYSIS

4.1	Collection of Data	40
4.2	Respondents' Personal involvement in reading activities.	45
4.3	Finding's obtained through questionnaires and oral interview from form 3 science teachers	46
4.4	Summary	47

CHAPTER FIVE

CONCLUSION

5.1	Conclusion and Implication	51
5.2	Implications of the study	55
5.3	Limitation of the study	57
5.4	Suggestions	59
5.5	Conclusion	66

REFERENCES	69
-------------------	-----------

APPENDICES

A	Questionnaire for students
B	Questionnaire for Form 3 Science and English teachers
C	Diagnostic Test
D	Pengesanan pelajar untuk membuat penyelidikan

**LIST OF TABLES****PAGE**

Table 1:	Time allocated for National type and Tamil School	9
Table 2:	Time allocated Chinese Vernacular School	9
Table 3:	The teaching of Mathematics in English:National and Vernacular Schools	11
Table 4:	The teaching of Science in English:National and Vernacular Schools	11
Table 5:	The Teaching of Science and Form Six	12
Table 6:	Sex distinction of respondents	41
Table 7:	Respondents distinguished according to race	41
Table 8:	The language the respondents can read and understand	42
Table 9:	Type of school attended by respondents during their primary education	43
Table 10:	Monthly income of respondents' family	43
Table 11:	Nature of respondents father occupation	44
Table 12:	Nature of respondents mother's occupation	44
Table 13:	Duration of time spent for reading by respondents each day	45
Table 14:	Source of reading materials available for the respondents	46
Table 15:	Result obtained from both the Diagnostic Test	49





CHAPTER I

BACKGROUND OF THE STUDY



1.1 Introduction

Recently, the Malaysian Ministry of Education of Malaysia has emphasized the use of English Language in the education system of Malaysia. As the first step the ministry has implemented the English Language in the teaching of Science and Mathematics in English. This change is done systematically, whereby the medium of instruction for both these subjects was introduced in year one and form one since 2003. The first batch of form three students who were taught in English sat for their Science and Mathematic paper in English 2005 and the first batch of form five students will sit for their Science and Mathematic subjects in English 2007.





The standard of English has declined as English has been relegated from the main medium of instruction to a school subject. Firstly, the wide usage of the language was limited to one subject. As a result the students have limited exposure to the language. Secondly, the importance given to the national language that is Bahasa Malaysia in the country especially the government sector has shifted the concentration of the Malaysian population towards mastering the Malay Language rather than the English Language. This was more prominent in the educational and employment sector, whereby students who pass out from schools and tertiary institution must possess a credit before they are employed in government sector. (Ministry of Education, 2002). Furthermore, the sentiment for the National Language and mother tongue grew stronger among the different ethnic groups. The politicians also played a great role in influencing the public in sidelining the importance of the English Language.

This situation does not apply or occur always because many elite families or educated families mostly of Chinese and Indian origin use English as their first language. (Asmah Haji Omar, 1991). In many cases the second generation are unable to speak their mother tongue as such English is accepted as their mother tongue since their parents speak to them in this language. Among the Indian society, most of these groups were from India and Sri Lanka. They were brought in by the British under the divide and rule policy. These groups used English as the medium of interaction with their children who later forgot their mother tongue. The Chinese community who were here earlier and got their earlier education in English schools also started using more of English Language than their mother tongue at home. This lack of exposure





weakened the mastery of their mother tongue, but improved their English proficiency. Hence, English Language has become a survival language and it is also used to uplift their social status in society.(Asmah Haji Omar,1991).

Furthermore, the Chinese and Tamil subjects are more ambiguous and uncertain about their cultural identity compared to the Malay subjects who have a close inclination to the identity, traditions and culture. This is because, the Malay society will never forgo their language as said by Norrizan Razali (ESL in Malaysia: Looking beyond the classroom). If he is a Malay, his language would be Malay, religion Islam and he would have a rich culture he would never separate himself from the other two main races. These groups give more importance to the second language that is English Language although most of them still follow the traditions and customs of their forefathers. Another important factor is the religion they follow. Some of them are Hindus, Christians, Buddhists and Muslims. So, the religious bondage towards the language is less compared to the Malays. When he is a Christian, he will have more exposure, in English Language hence this would indirectly enable him to master the language. This uncertain cultural, religious and racial identity influences the Chinese and the Indians to master the English Language better than the Malays. This situation can be seen in school such as my school where students consist of all the three main races proportionately. Therefore I agree that this situation exists and has a strong influence in mastering a particular language.

In addition, cultural identity is directly linked to an individual's native tongue. Through observation I notice that when we see an Indian we expect him to know Tamil and if he fails to speak the language as another Indian will look down upon





him. The same goes to a Chinese and the Malays. A lot of rich culture is linked closely to the culture of that particular race. The rich heritage of the ethnic group and knowing the native language is very important and it increases an individual's cultural bondage and also the integrity of that person which is associated to that ethnic group. The identification of the roots of that group is through the native language. When there is a conversation within a mixed group in a language comprehensible by the different ethnic group there would be a maturity of thought whereby, interaction would go over boundaries to understand others well in terms of culture, religion and traditions besides being able to have a holistic conversation and not confined to certain issues concerning only a specific ethnic group.

Furthermore, the ethnic identity is important in bringing up children as it would be easy to explain the cultural and religious values in the native language. At the same time there is a risk if different ethnic group clinging on to their own native language strongly as this would affect the social integration of the different races in this country.

1.2 STATEMENT OF THE PROBLEM

The Malaysian Ministry of Education is spending millions of dollars to ensure the smooth implementation of the change in teaching both these subjects in English. In order to see that the change is progressing well it is monitoring students' academic progress through various examinations such as the Primary Assessment Examination (UPSR), Lower Secondary Examination (PMR), Malaysia Certificate of Education





Examination (SPM) and Higher Certificate of Education Examination (STPM) before they are allowed to further their education at the tertiary level. This is to ensure that the students acquire the necessary skills stipulated in the curriculum as specified in the KBSR and KBSM syllabuses.

However, the performance of the students could not be gauged properly as the question papers were set in dual languages and students are allowed to attempt either in Bahasa Malaysia or in English Language. About 70% of the Form Three students attempted the PMR examination in Bahasa Malaysia in the first year. Hence, the effectiveness of the performance and the authentic result of students cannot be assessed effectively. As such the effectiveness of teaching the subjects in English could not be assessed accurately. So, this study will enable to expose the extent of the language skills used by students in mastering and attempting the examination questions. In addition, the result of the study would also enable us to do a study of the students' knowledge in acquiring the skills needed in attempting the exam questions and also to find out whether the ministry's objective is being achieved.

1.3 RESEARCH QUESTIONS:

- i). Do students perform better in their PMR examinations if the English Language is used as the medium of instruction in teaching the science subject?
- ii). To what extent has the students understood the questions in English Language in comparison to the subject taught in Bahasa Malaysia?
- iii). Do students feel comfortable in studying and attempting the science subject in the PMR examinations in English Language?





1.4 SIGNIFICANCE OF THE STUDY

This study will be able to provide data which will give insights on the preferred language and the skills employed by Form Three students in attempting the tests and the problem they face due to the language. This study would also help teachers who are teaching science in the English Language to modify their teaching strategies and innovate new strategies in teaching the language more effectively. In addition, this study may perhaps be able to determine the plausibility of the curriculum design in relation to (vis-à-vis) the cognitive and psychological maturity of the students at the Form Three level in mastering the necessary skill in the English Language in attempting the Science tests more effectively and produce better results. Suggestions will also be given how to improve the existing situation.

