

UNIVERSITI TEKNOLOGI MARA



**THE LEARNING OF SCIENCE AND
MATHEMATICS IN ENGLISH AMONG LOWER
SECONDARY PUPILS IN THE DISTRICT OF
KLANG**

SITI AZURA BINTI KHALID

**Dissertation submitted in partial fulfillment of the requirements
for the degree of
Masters of TESL 2008**

Faculty of Education

Mac 2008

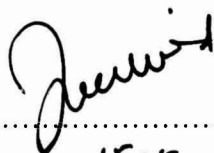
Candidate's Declaration

I declare that the work in this thesis was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the result of my own work, unless otherwise indicated or acknowledged as referenced work. This topic has not been submitted to any other academic institution or non-academic institution for any other degree or qualification.

In the event that my dissertation be found to violate the conditions mentioned above, I voluntarily waive the right of conferment of my degree and agree be subjected to the disciplinary rules and regulations of Universiti Teknologi MARA.

Name of Candidate Siti Azura Binti Khalid
Candidate's ID No 761020-10-5632
Programme ED 720
Faculty Education
Thesis Title The Learning of Science and Mathematics in English Among
 Lower Secondary School Pupils in the District of Klang

Signature of Candidate



Date

15.5.2008

**The supervisor approve academic exercise of Siti Azura Binti Khalid
(2005104658) Submitted to the Faculty of Education 2008**

Approved:

Assoc. Prof. Dr. Parmjit Singh

7 April 2008

ACKNOWLEDGEMENT

I wish to express my sincere appreciation and gratitude to my supervisor and project coordinator, Associate Professor Dr. Parmjit Singh for his invaluable guidance, unfailing help, advice, suggestion and support throughout the duration of this study.

Sincere thanks are extended to Dr Faizah Abd Majid, TESL Postgraduate Program Coordinator, staff and TESL Postgraduate students especially those who have contributed in one way or another towards the success of this project.

I would also like to express my deepest affection to my entire friends from TESL Masters Education Group and to all my never ending supportive friends for their comments and continuous support that have helped in completing this project.

I would also like to express my deepest affection to my parents, my siblings, my nieces and my loved ones for their love, support and encouragement.

ABSTRACT

The implementation of the policy of teaching Science and Mathematics in English was introduced to Year One, Form One and Form Six pupils in all schools in Malaysia beginning 2003. This move was expected to provide opportunities for pupils to use English language and it was intended to increase their proficiency in the language. In view of this, the purpose of this research was to assess pupils' readiness of learning Science and Mathematics in English after five years of its implementation from the perspective of pupils. A total of 507 pupils, from the levels of Form One and Form Two, ages ranging from 13 to 14 years, participated in this study. The methodology used was quantitative in nature where a set of questionnaire and two sets of diagnostics tests for Form One and Form Two pupils respectively were used in measuring pupils' readiness in the learning of Science and Mathematics in English. The results in term of pupils' perceptions from the questionnaire indicate that both Form One and Form Two pupils have a positive perception toward the learning of Science and Mathematics in English. Approximately two-third of the pupils indicated their desire to continue on this policy that consists of a higher percentage of Form Two pupils than Form One pupils. Similarly, a higher percentage of pupils enjoy learning Mathematics than learning Science in English.

The second part of the questionnaire was to measure pupils' linguistic competency which was based on their understanding on spoken understanding of English texts, writing in English, speaking in English and confidence in speaking in English. The data suggests that the highest increment in Form One pupils and Form Two pupils' linguistic improvement is in understanding spoken English. Form Two pupils rated higher confidence ability on the linguistic areas of competencies as compared to Form One pupils and significant difference was found only in the area of listening skills and reading skills.

In the second part of this study, two separate diagnostic tests for each Form were used to diagnose pupils understanding of Science and Mathematics learning. Pupils' achievements were based on the ten constructs and through the diagnostic tests pupils level of proficiency and understanding were assessed. The overall achievement score obtained for both tests was statistically significant. Form One pupils was found to have a higher level of difficulty in Science learning as compared to Mathematics learning in the English Language. For both diagnostic tests, the highest level of difficulty was in the construct of Expressing Science and Mathematical idea or information in English. The results from the diagnostic study reveals that pupils in schools are actually still facing language problems as well as content problems in learning Science and Mathematics and to overcome these problems they need help and guidance from the teachers. The result of this study indicates most pupils perceive the learning of Science and Mathematics in English has brought positive effects especially in terms of language skills based on pupils' perception on their linguistic performance in terms of their linguistic competencies.