UNIVERSITI PUTRA MALAYSIA

RAPID ENGLISH LANGUAGE COURSEWARE FOR THE NEW PRIMARY SCHOOL CURRICULUM: AN EVALUATION

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FPP 1994 6

RAPID ENGLISH LANGUAGE COURSEWARE FOR THE NEW PRIMARY SCHOOL CURRICULUM: AN EVALUATION

By

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Thesis Submitted in Partial Fulfilment
of the Requirements for
the Degree of Master of Science
in the Faculty of Educational Studies,
Universiti Pertanian Malaysia

May 1994

UPM

ACKNOWLEDGEMENTS

I am most fortunate to have Dr. Mohd. Zain Mohd. Ali, Dr. Gan Siowck Lee, and Associate Professor Dr. Kamariah Abu Bakar as my supervisors. I am thankful to them for their invaluable guidance, ideas, criticism and encouragement throughout this study. In particular, I would like to thank Dr. Mohd. Zain Mohd. Ali for taking great pain to refine the writing of this report; Associate Professor Dr. Kamariah Abu Bakar for her advice in identifying the research topic and in defining the research scope; and Dr. Gan Siowck Lee for sharing with me her expertise in CAI, research methodology and statistics . The three supervisors have done their best to supervise this study, and if there should be any imperfection, I am fully responsible for it.

My appreciation goes to the headmasters and senior assistants of SRJK (C) Chen Moh and Naam Kheong, for kindly allowing me to conduct the research in their schools. Not forgetting the headmasters and senior assistants of SRJK (C) Shun Jin and Chin Woo for giving me the permission to pilot the testing instrument with their students. My special thanks go to all the English language teachers and students of these schools. Their enthusiasm and cooperation were simply beyond comparison.

I must thank the principal of SMK Puterijaya, Puan Ainul Zaharah Haji Abdul Rahman for granting the permission for me to follow this M.S. (TESL) programme.

I would like to thank the former dean of the Faculty of Educational Studies, Associate Professor Mohd. Shah Haji Lassim, for his encouragement, advice and support. I would also like to thank Associate Professor Dr. Nazaruddin Mohd. Jali for contributing some enlightening ideas for my research proposal; and Encik Mohd. Majid Konting for helping me with the statistical interpretation in the research proposal.

A big 'thank you' goes to the proprietor of PJ Electronics, Mr. Johnny Chin and his sisters, for giving me the software support; not forgetting those supportive staff members of Pusat Komputer, especially Mohd. Huzaini and Zailani Abdul Latif, who have given me much technical assistance. Special thanks go to Cik Fadzlon Mohd. Yusof for her invaluable tips on word-processing.

Last but not least, I would like to thank all my family members, colleagues and friends, who have helped in one way or another, towards the completion of this study.

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LIST OF ABBREVIATIONS

AEP	Average English Proficiency
AI	Artificial Intelligence
BM	*Bahasa Malaysia*
CAI	Computer-Assisted Instruction
CALL	Computer-Assisted Language Learning
CIE	Computer In Education
HEP	High English Proficiency
LCE	Lower Certificate of Examination
LEP	Low English Proficiency
NPSC	New Primary School Curriculum
PC	Personal Computer
PSAT	Primary School Assessment Test
RCC	RAPID Computer Courseware
REC	RAPID Educational Courseware
RELC (NPSC)	RAPID English Language Courseware for the New Primary School Curriculum
SD	Standard Deviation
SK	*Sekolah Kebangsaan*
SRJK	*Sekolah Rendah Jenis Kebangsaan*
SRJK (C)	*Sekolah Rendah Jenis Kebangsaan (Cina)*
SRJK (T)	*Sekolah Rendah Jenis Kebangsaan (Tamil)*
SSIC	Secondary School Integrated Curriculum

Abstract of thesis presented to the Senate of Universiti Pertanian Malaysian on partial fulfilment of the requirements for the Degree of Master of Science.

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MAY 1994

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When the Ministry of Education of Malaysia launched the Learning-With-Computers Project in 1989, concerned educators felt that there was an acute shortage of local curriculum-related courseware. At this juncture, a pioneer courseware company, produced its first New Primary School Curriculum (NPSC) series, popularly known as RAPID Educational Courseware. The series comprises three major subjects: Bahasa Malaysia, English Language and Mathematics.

Because the courseware was new, it was not clear to what extent it conforms to the instructional goals and objectives of the NPSC. It was also not known whether students who used the courseware acquired better skills than those who did not. In view of the urgency to provide such

feedback, this evaluation study, which focussed on one major subject i.e. English Language, was conducted. The study aims to suggest guidelines for overall improvement of the design and use of the RAPID English Language Courseware (abbreviated RELC (NPSC)); henceforth indirectly encouraging the production of better courseware.

The study employed both formal and informal evaluation. The latter focussed on content and design analysis of the courseware, and the former involved an effectiveness experiment which compared the language improvement of two groups of primary students. One group used the RELC (NPSC) in the computer laboratory, and another followed the tuition class.

The content analysis showed that the courseware contained most of the syllabus items in the NPSC. The design analysis revealed that the courseware was designed after the behavioural model, where emphasis was given to learning discrete items and getting correct responses. The experiment proved that the courseware was a significantly more effective means of supplementary teaching of the English language for Years 3 and 5, especially for the average and below average students, as compared to the mass tuition. There was no difference for the above-average group.

The study recommended that the courseware be integrated into classroom teaching, and be used under the supervision of the language teacher in order to be effective. Otherwise, it should be upgraded for use without teacher supervision.

Abstrak tesis yang dikemukakan kepada Senat Universiti Pertanian Malaysia sebagai memenuhi sebahagian daripada keperluan untuk Ijazah Master Sains.

PERISIAN KURSUS BAHASA INGGERIS RAPID UNTUK KURIKULUM BARU SEKOLAH RENDAH: SATU PENILAIAN

Oleh

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MEI 1994

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Semasa Kementerian Pendidikan Malaysia melancarkan Projek Pembelajaran Dengan Komputer pada 1989, pendidik yang perihatin merasakan terdapatnya kekurangan perisian kursus tempatan. Pada masa itu, satu syarikat perintis menghasilkan perisian kursus pertamanya untuk Kurikulum Baru Sekolah Rendah (KBSR). Perisian ini dikenali sebagai Perisian Kursus Pendidikan RAPID, yang merangkumi tiga mata pelajaran utama, iaitu Bahasa Malaysia, Bahasa Inggeris dan Matematik.

Oleh kerana perisian kursus ini masih baru, maka sejauh manakah ia mengikuti tujuan dan objektif KBSR belum diketahui. Tambahan pula, sama ada pelajar yang belajar dengan perisian kursus ini lebih mahir daripada pelajar yang tidak juga tidak diketahui. Memandangkan keperluan memberi maklum balas seperti ini adalah penting, pengajian ini

yang menumpu pada salah satu mata pelajaran utama KBSR, iaitu Bahasa Inggeris, dijalankan. Pengajian ini bertujuan memberi garis panduan untuk memperbaiki reka bentuk dan penggunaan Perisian Kursus Bahasa Inggeris RAPID, dengan ini secara tidak langsung menggalakkan penghasilan perisian kursus yang lebih bermutu.

Kajian ini melibatkan dua pendekatan penilaian, iaitu penilaian formal dan tidak formal. Penilaian tidak formal menumpu pada analisis isi kandungan dan reka bentuk perisian, dan penilaian formal melibatkan satu esperimen keberkesanan di sekolah rendah, di mana prestasi dua kumpulan pelajar, yang menggunakan perisian kursus ini dan yang mengikuti kelas tuisyen, dibandingkan.

Analisis isi kandungan menunjukkan perisian kursus ini meliputi kebanyakan item Sukatan Pelajaran KBSR. Analisis reka bentuk menunjukkan perisian kursus ini direka mengikuti model tingkah laku di mana pembelajaran item diskret dan respons betul lebih diutamakan. Esperimen keberkesanan membuktikan perisian kursus ini lebih berkesan sebagai pengajaran tambahan Bahasa Inggeris dari kelas tuisyen untuk Tahun 3 dan 5, terutamanya bagi pelajar berkebolehan sederhana dan rendah, tetapi tidak ada perbezaan untuk pelajar berkebolehan tinggi.

Kajian ini menyarankan bahawa perisian kursus ini diintegrasikan dalam pengajaran bilik darjah digunakan dengan penyeliaan guru supaya berkesan. Jika tidak, ia perlu dipertingkatkan untuk penggunaan tanpa penyeliaan guru.

CHAPTER I

INTRODUCTION

Background to The Problem

The development of Computers-In-Education (CIE) in Malaysia can roughly be divided into two phases i.e. learning about computer, and learning with computer (Zoraini 1989). The learning-about-computer phase began from the date the first school computer club was set up at the La Salle Secondary School, Petaling Jaya, in 1981. The learning-with-computer phase began when the Ministry of Education of Malaysia launched its 'Learning-With-Computer' project in 1989.

Malaysia was greatly influenced by the aggressive computer literacy movement in the world, especially in the United Kingdom (UK) and the United States of America (USA), in the late 70's, when the price of the micro-computer dropped drastically. As computers and related technology are used in more and more technological systems and everyday functions, it seems that every individual, sooner or later, will inevitably have to make use of the computer or at least be affected by its application. In view of the increasingly widespread use of the computer, the society feels the need to be computer literate. Responding to such a need, the Ministry of Education initiated the computer literacy programme. Under this programme, several plans and activities were implemented. They included: school computer clubs, tertiary computer

literacy programme, school computer literacy pilot project, computer camps, seminars, workshops and competitions.

During this learning-about-computer phase, the trend was to know everything about the computer. To cater for such a need, computers were required. Acquiring the computer hardware was the in-thing. Schools deemed it necessary to acquire computers and to set up computer clubs. Affluent parents readily installed a computer at home. The general focus was on the hardware, not much thought was given to the software.

From the beginning of 1987, the earlier craze and enthusiasm of students to join the computer club subsided. Most students, after learning computing skills such as programming, word processing and data processing, felt that there was not much practical value to learn these skills. Moreover, such skills were not immediately useful especially for those who were still students, and who did not have a computer for use. In certain situations, computer clubs were run by inexperienced tutors employed by computer companies. Most of them majored in computer science and thus were well-versed with the computer, but they were mostly untrained teachers who knew little about pedagogy and classroom management. So students' motivation and interest were not sustained. As the membership dwindled, schools found it hard to maintain the hardware which was mostly bought under hire purchase schemes.

The dilemma which many computer clubs experienced triggered off the Education Ministry to reconsider the role of CIE seriously. After

careful consideration, it was felt that to fully benefit from the interactive potential of the computer, it had to be used as a tool, in the form of computer assisted instruction (CAI). The literacy aspect could be learned along the way. With this decision, the ministry launched the 'Learning-With-Computer' project in 1989 (Computimes 19-1-1989), which marked the beginning of the learning-with-computer phase.

Statement of The Problem

When the 'Learning With Computer' pilot project was launched in twenty selected secondary schools in 1989, the Ministry of Education was considering equipping in phases all the secondary schools in the country with computers. It was not mentioned whether the primary schools would be supplied with computers.

It was soon realised that just supplying the hardware was useless if there was no educational sound software to use (see Gan 1989). The computer is effective only when the appropriate software is available for use. Currently, almost all the language software in use is produced overseas, specifically from the UK and the USA. Because the software is produced for the use of native speakers, the language level is much higher. For example, a specific software for a sixth grader there may be unsuitable for use by the same grade level here. Moreover, the content may be culture-bound and unsuitable for local contexts. It is felt that unless the software is produced by local experts, the mismatch would always be present (see Tan 1989).

At this juncture, a few local companies embarked on educational software production. One such company was PJ Electronics which started developing its RAPID Educational Courseware (REC) since 1984. REC includes such software as Sound Alphabet, English Talking Pictionary, *Muqaddam* (teaching of the Quran), Enrichment Games, *Kuiz Perkataan* (word quiz), and supplementary series for the New Primary School Curriculum (NPSC), Secondary School Integrated Curriculum (SSIC), Primary School Assessment Test (PSAT) and Lower Certificate of Examination (LCE).

The REC NPSC series caters for three major subjects i.e. *Bahasa Malaysia* (BM), English language and Mathematics. For the purpose of this study, only the English language software, commonly known as the RAPID English Language Courseware for the New Primary School Curriculum, was used. Hereinafter the courseware is denoted by its abbreviation RELC (NPSC).

As the RELC (NPSC) is still new in the local educational software scenario, it has not been evaluated. It is not known to what extent the courseware conforms to the instructional goals and objectives of the English language syllabus in the NPSC. It is also not clear if the content and skills presented in the courseware match the English language syllabus in the NPSC. Further, it is important to find out if the courseware employed is pedagogically-sound. In addition, it is also not known whether students using the RELC (NPSC) acquire better language proficiency than those who do not. Hence, the quality and effectiveness of the RELC (NPSC) in

enhancing the language learning process is unknown. In view of the urgency to provide such feedback, this evaluation study is conducted.

Purpose of The Study

The general objective of this study is to evaluate the quality and effectiveness of the RELC (NPSC) from the instructional perspective. The specific objectives are:

1. to analyse the design of the courseware by comparing it to a set of established guidelines of courseware design and development principles, and instructional theories.
2. to analyse the content of the courseware by comparing it to the syllabus items of the NPSC English language syllabus.
3. to compare the performance between the group which used the courseware and the group which did not.
4. to determine for which proficiency group: high, average or low, was the courseware most helpful or effective.
5. to investigate the factors which enhanced or hindered the effective use of the courseware.

Research Questions

Based on the above objectives, these research questions were formulated:

1. Is the design of the RELC (NPSC) instructionally sound? Does it follow established courseware design principles? Are the basic characteristics or criteria of good courseware present in the courseware? Does the courseware design correspond to the recommended instructional methodology of the New English Language Programme in the NPSC?
2. Is the subject matter or content of the RELC (NPSC) relevant to the local primary English language syllabus? To what extent does its content match the English syllabus of the NPSC?
3. Which group would have higher posttest mean - the group which used the RELC (NPSC) or the group which did not?
4. For which proficiency group (high, average or low) is the RELC (NPSC) most helpful or effective?
5. What factors enhance or hinder the effective use of the RELC (NPSC)?

Significance of The Study

The 'Learning-With-Computer' or CAI concept was popularised in Malaysia since 1988, and it is still at the beginning stage of implementation. Therefore, many parties, including the policy makers, educators, teachers, students, parents and the society at large, are not certain about

the effects of 'Learning-With-Computers'. Many people are skeptical about whether the computer can improve academic performance. If so, is the improvement justified by the cost involved.

In general, the findings of this study may help the decision makers to have a better understanding of the effects and potentials of computers when implementing CAI in learning institutions. The findings may also indirectly tell language teachers how language teaching can be assisted by the use of computers and appropriate software.

In particular, this study aims to provide feedback on a specific courseware i.e. RELC (NPSC). The Ministry may have a basis to consider whether this package can be adopted for use in schools. The courseware developer can be informed about the strengths and weaknesses of the courseware, based on the findings and suggestions of this report. Moreover, the users at large can be informed about the quality of the courseware. In addition, this study can serve as a reference for future courseware evaluation study.

Definition of Terms

Evaluation

Educational evaluation usually involves making comparison with other programmes, curricula, or organisational schemes. As explained by Choppin (in Husen and Postlethwaite 1985:1748), the term is generally

used for application to abstract entities such as programmes, curricula and organisational variables.

According to Nevo (1985:1772), definitions of evaluation can be summarised in three different types. The first is goal-based, where evaluation is defined as the process of determining to what extent the educational objectives are actually being realised. The second is non-judgmental description, where evaluation means to provide information for decision making. The third is judgmental, where evaluation is defined as the assessment of merit or worth. In its broad sense evaluation includes assessment, measurement and testing as parts of evaluation.

In this study, the evaluation conducted was both goal-based and judgmental because its specific objectives were stated explicitly, and the strengths and weaknesses of the courseware under study were discussed. Following the courseware evaluation model of Hannafin and Peck (1988) and Sloane et al. (1989), the formal and informal approaches of evaluation were used in the study. The formal approach involved the quantitative comparison of learning outcomes of students who followed the RELC (NPSC), and the group who did not, using a pretest-posttest instrument. The informal approach involved the qualitative evaluation of the content and design of the courseware.

Courseware

Software, as opposed to hardware, refers to the computer programmes, or sets of commands by which the hardware (computer) is instructed to perform specific tasks. Within the domain of software, a distinction is made between the general purpose computer programmes, which are also known as application or tool software, and the teaching materials. The latter is given the name `courseware' which means CAI materials and any associated documents (Khurshid Ahmad et al. 1985:22).

In this study, courseware is defined as materials produced to achieve instructional objectives via the media of computer technology, following the description of Hannafin and Peck (1988:383).

English Language Performance

In this study, English language performance refers to the ability of the learners in answering a summative English language test which focused on reading and writing skills. The pretest and posttest are summative because they contain most of the language skills meant to be learned over one whole academic year. The listening and speaking skills were not included in the test because the courseware does not teach these skills. The performance is considered good if learners score more than one standard deviation (SD) above the mean. It is considered poor if the score is more than one SD below the mean.