UNIVERSITI TEKNOLOGI MARA

THE EFFECTIVENESS OF ARCS EMBEDDED COMPUTER ASSISTED LEARNING MATERIALS IN SUPPORTING AN INTEGRATED APPROACH TO TEACHING ENGLISH GRAMMAR

NOR SYAHIZA SHAHABANI

Thesis submitted in partial fulfilment of the requirements
for the degree of
Master of Education

Faculty of Education

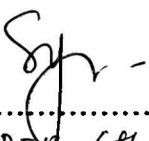**December 2007**

Candidate's Declaration

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

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

Name of Candidate	Nor Syahiza bt Shahabani
Candidate's ID No	2005104738
Programme	M. Ed TESL
Faculty	Education
Thesis Title	The Effectiveness Of ARCS Embedded Computer Assisted Learning Materials In Supporting An Integrated Approach To Teaching English Grammar

Signature of Candidate

Date .... DECEMBER 6th, 2008

ACKNOWLEDGEMENT

In the name of Allah, the Most Merciful and the Most Gracious. I thank Allah swt. for giving me the courage, ability and the strength that have enabled me to complete my research work successfully. Without The Al-Mighty guidance and blessing, I may not have the strength to complete this challenging task.

I would also like to express my gratitude to Associate Professor Dr Nor Aziah bt Alias, my thesis advisor, who has guided me throughout the completion of this research work. Her ideas, interest and advice have guided me to better understand and appreciate this research study. I wish also to express my sincere gratitude to our M. Ed TESL coordinator, Dr Faizah bt Abdul Majid, who has guided me in successfully completing the compilation of this thesis. To my young brother, Mohd Syahizan b Shahabani, I thank you from the bottom of my heart for helping me in the design and development of the CAL materials as well as in the tabulation of the statistical analysis. Without your assistance, I will not have understood most of the statistical jargons.

Finally, I would also like to thank all the teachers and students of Sekolah Menengah Kebangsaan Bandar Tasik Puteri, Rawang, Selangor who had voluntarily participated in my study. Without your generous time, kind assistance and your sincere contribution, this research study may not be a success.

To my beloved family, my dearest mum, Siti Zaharah bt Hj Saud, and my dad, Shahabani b Hj Md Salleh who did not live long enough to share my joy and success, I wish to convey my dearest gratitude and appreciation to both of you. Mum, your endurance throughout all hardships, your encouragement and your endless trust, have all guided me through most difficult times and happy days. I love you both, always! Thank you ALL again and may Allah swt. bless every one of you with many rewards and guidance.

ABSTRACT

Learning and teaching English effectively still remains an issue in an L2 environment. Effective teaching approaches coupled with CAL materials can enhance students' learning motivation and interest. Despite the advantages of using electronic teaching media, many teachers still hesitate to use them. The purpose of the study was to investigate the effectiveness of using CAL materials in teaching English grammar. The hypotheses were to investigate if there is/are (1) a significant difference in the English grammar performances between the students learning via a technology supported integrated approach and those learning through a "chalk and talk" approach; (2) a significant difference in the English grammar performances between gender when using CAL materials. A research question was also posed to examine how learners rate the ARCS embedded CAL materials used in the learning of English grammar. Sixty randomly selected Form 1 secondary school students from SMK Bandar Tasik Puteri, Rawang, Selangor, participated in the study. The experimental group (n=30) was exposed to the research treatments; while, the control group (n=30) went through the learning via the traditional teaching using 'calk and talk' approach. The selected subjects were of the same English level competency. Two instruments were used to solicit students' English grammar performances and their responses towards CAL materials using the ARCS model. Paired Sample T-Tests analyzing variations between groups and pre-post tests were conducted. The analyses reported (a) a significant difference (p=.001) between the performance of the experimental group students when compared to the control group students in the English grammar (tenses) posttest; (b) a significant difference (p=.000) between the performance of the experimental group students before and after they underwent their learning experiences using CAL materials; (c) no significant difference (p=.194) between the posttest performances of the experimental group students based on gender differences. Students' responses on ARCS components revealed mostly positive responses on all test items. The use of CAL materials in classroom activities has improved students' performances. Both genders benefit from using CAL materials in their learning experiences. The stereotype assumption about male dominance in technology is not visible in this study. CAL materials selected are those that can capture learners' attention, relevant to the learners' experiences, can increase learners' motivation and can give satisfaction to the learners. Finally, understanding students' learning motivation is essential as it determines the quality of the students' academic accomplishment. In the teaching English grammar, this motivation can lead to students' mastering of the English grammar concepts, rules and structures.

ABSTRAK

Pembelajaran dan pengajaran Bahasa Inggeris secara berkesan masih menjadi isu di dalam persekitaran pembelajaran bahasa kedua. Pendekatan pengajaran berserta bahan-bahan berbantuan komputer boleh meningkatkan motivasi dan minat pelajar. Di samping kelebihan-kelebihan menggunakan media pengajaran elektronik, masih ramai guru yang enggan menggunakannya. Tujuan kajian ini adalah untuk menguji keberkesanan penggunaan bahan-bahan pembelajaran berbantuan komputer di dalam pengajaran tatabahasa Bahasa Inggeris. Hipotesis-hipotesis bertujuan menguji adakah terdapat (1) perbezaan signifikan prestasi tatabahasa Bahasa Inggeris di antara pembelajaran melalui pendekatan teknologi benbantuan teknologi bersepadu dan pembelajaran melalui pendekatan "tutor dan kapur"; (2) perbezaan signifikan prestasi tatabahasa Bahasa Inggeris di kalangan pelajar berbeza jantina apabila menggunakan bahan-bahan pembelajaran berbantuan komputer. Soalan kajian juga meninjau bagaimanakah pelajar-pelajar menilai bahan-bahan pembelajaran berbantuan komputer yang berciri model "ARCS" dalam pembelajaran tatabahasa Bahasa Inggeris. Enam puluh pelajar-pelajar Tingkatan satu dari SMK Bandar Tasik Puteri, Rawang, Selangor dipilih secara rawak menyertai kajian ini. Kumpulan eksperimental (n=30) telah didedahkan kepada rawatan kajian; sementara kumpulan kawalan (n=30) menjalani pembelajaran secara tradisi menggunakan pendekatan "tutor dan kapur". Sampel yang telah dipilih mempunyai tahap kecekapan Bahasa Inggeris yang sama. Dua alat ukur digunakan untuk menguji prestasi tatabahasa Bahasa Inggeris pelajar-pelajar dan tindakbalas mereka terhadap bahan-bahan pembelajaran barbantuan komputer menggunakan model "ARCS". Ujian-t sampel berpasangan digunakan untuk menganalisis variasi di antara kumpulan-kumpulan ujian dan ujian pra dan pos telah dijalankan. Analisis menunjukan (a) perbezaan signifikan (p= .001) di antara prestasi kumpulan eksperimental berbanding kumpulan kawalan; (b) perbezaan signifikan (p= .000) di antara prestasi kumpulan eksperimental sebelum dan selepas menjalani pembelajaran menggunakan bahan-bahan berbantuan komputer; (c) tidak terdapat perbezaan signifikan (p= .194) di antara kumpulan eksperimental yang berbeza jantina. Tindakbalas-tindakbalas pelajar adalah positif terhadap komponan "ARCS" di dalam semua item-item ujian. Penggunaan bahan berbantuan komputer dalam aktiviti-aktiviti bilik darjah telah meningkatkan prestasi pelajar-pelajar. Kedua-dua jantina memperoleh faedah di atas penggunaan bahan-bahan pembelajaran berbantuan komputer. Andaian sterotaip bahawa pelajar lelaki lebih dominan di dalam teknologi tidak kelihatan di dalam kajian ini. Bahan-bahan pembelajaran berbantuan komputer yang dipilih adalah yang mampu menarik perhatian pelajar-pelajar, relevan dengan pengalaman pelajar-pelajar, mampu meningkatkan motivasi pelajar-pelajar dan memberikan kepuasan kepada mereka. Akhirnya, memahami motivasi pembelajaran pelajar-pelajar adalah penting untuk memastikan mutu pencapaian akademik pelajar. Di dalam pengajaran tatabahasa Bahasa Inggeris, motivasi ini boleh membimbing penguasaan ke atas konsep-konsep, hukum-hukum dan struktur-struktur tatabahasa Bahasa Inggeris.