

**THE EFFECTIVENESS OF A4STEM ON KOLEJ GENIUS
INSAN STUDENTS' INTEREST TOWARDS ARABIC
LANGUAGE LEARNING**

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AUTHOR DECLARATION

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

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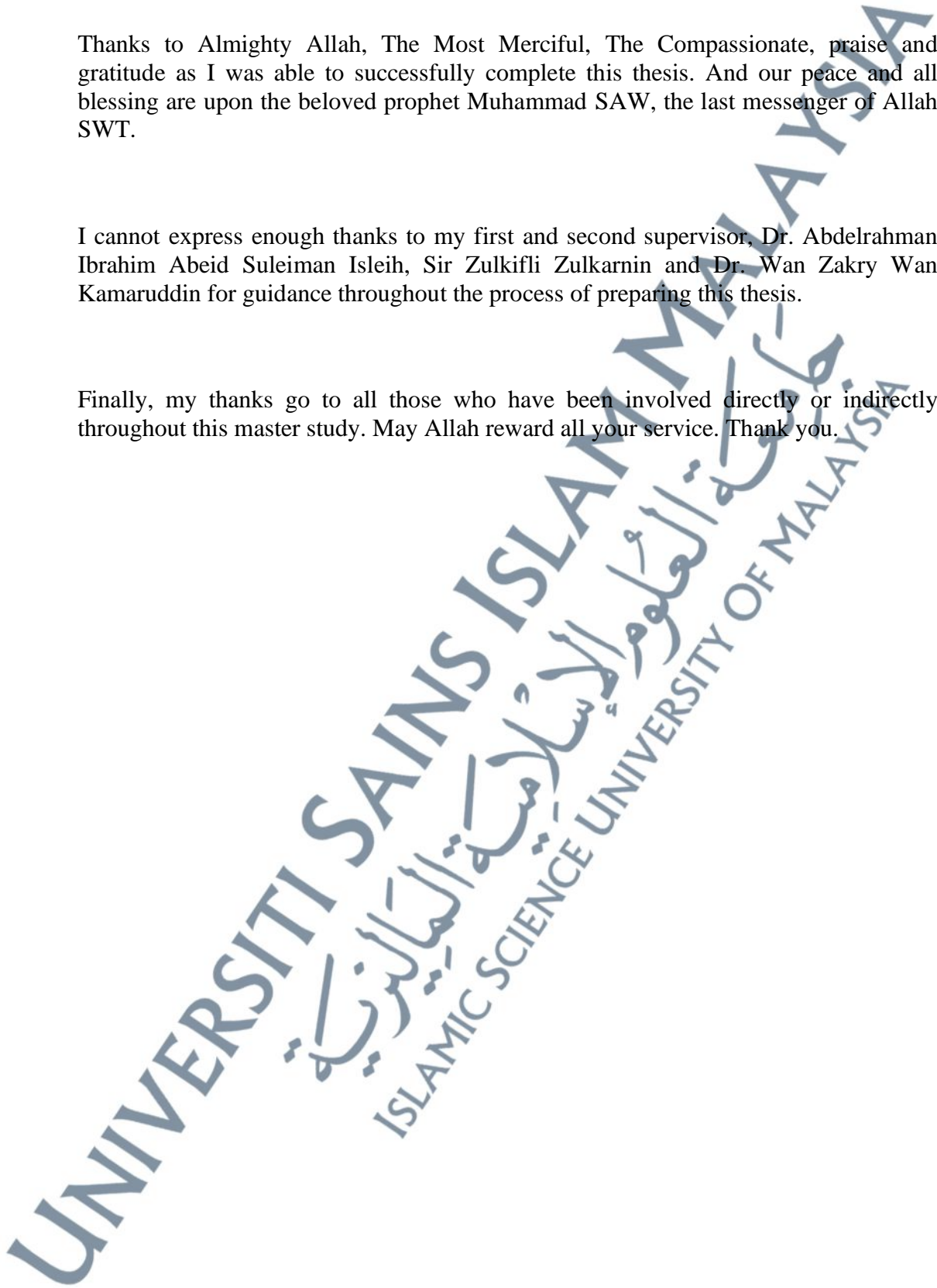
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ABSTRAK

Kajian ini bertujuan untuk mengetahui keberkesanan modul A4STEM di kalangan pelajar di Kolej Genius Insan (KGI) di Universiti Sains Islam Malaysia (USIM), sebuah institusi pendidikan berbakat berbakat. Kandungan modul ini mengambil kira integrasi ilmu Naqli dan Aqli (INAQ). Ia menggunakan pendekatan pembelajaran interaktif yang disepadukan dengan pembelajaran sendiri melalui kursus terbuka pendek melalui platform "Massive Open Online Courses" (MOOC). Kajian ini melibatkan empat orang pelajar yang terdiri daripada dua orang pelajar lelaki dan dua orang pelajar perempuan, yang berada di peringkat menengah rendah. Untuk mendapatkan data yang relevan, pendekatan kualitatif dengan temu bual sampel telah dijalankan. Para peserta telah dipilih menggunakan pendekatan sukarela di kalangan pelajar yang mengikuti kursus bahasa Arab. Responden telah didaftarkan dan menggunakan kursus dalam talian A4STEM menggunakan MOOC untuk tempoh satu semester. Setiap pelajar kemudian ditemuramah, dan perbualan mereka ditranskripsikan secara manual untuk analisis pengekodan dan tematik. Keputusan menunjukkan maklum balas positif pelajar terhadap pakej keseluruhan modul A4STEM. Mereka bersetuju dengan keberkesanan kandungan dan pendekatan modul A4STEM MOOC. Bagi mereka, belajar bahasa Arab dalam sains tulen melalui mod pembelajaran campuran di KGI sesuai dengan mereka dan sesuai dengan jangkaan mereka. Ia membuktikan bahawa A4STEM sesuai dan berkesan dalam meningkatkan penguasaan Bahasa Arab dan STEM. Tanggapan positif terhadap kandungan dan pendekatan modul A4STEM menunjukkan bahawa ia mempunyai potensi untuk terus dibangunkan dan diperbaiki. Secara praktikalnya, institusi pendidikan lain yang menggunakan pendekatan pendidikan al-Quran dan Sunnah dalam mata pelajaran STEM boleh mendapat banyak manfaat daripada modul yang dibangunkan.

ABSTRACT

This study intends to discover the effectiveness of the A4STEM module among students at Kolej Genius Insan (KGI) at Universiti Sains Islam Malaysia (USIM), an Islamic gifted talented educational institution. The content of this module takes into consideration the integration of Naqli and Aqli knowledge (INAQ). It employs an interactive learning approach integrated with self-learning through short open courses via the “Massive Open Online Courses” (MOOC) platform. The study involved four students consisting of two male and two female students, who were in the lower secondary level. To elicit the relevant data, a qualitative approach with sample interview had been carried out. The participants were selected using a voluntary approach among students who were taking the Arabic language course. The respondents were registered and used the A4STEM online course using MOOC for a period of one semester. Each student was later interviewed, and their conversation was transcribed manually for coding and thematic analysis. The results showed the students’ positive feedback on the overall package of the A4STEM module. They agreed on the effectiveness of the content and approach of the A4STEM MOOC module. For them, learning Arabic language in pure science through the blended learning mode in KGI suited them and matched their expectations. It proves that A4STEM is suitable and effective in improving Arabic and STEM proficiency. The positive responses to the content and approach of the A4STEM module indicates that it has the potential to be further developed and improved. Practically, other educational institutions that apply the Quran and Sunnah education approach in STEM subjects could benefit greatly from the developed module.

الملخص

تهدف هذه الدراسة إلى اكتشاف فعالية وحدة A4STEM بين الطلاب في Kolej Genius Insan (KGI) في Universiti Sains Islam Malaysia (USIM) ، وهي مؤسسة تعليمية إسلامية موهوبة. يأخذ محتوى هذه الوحدة في الاعتبار تكامل المعرفة النقلية والعقلي (INAQ). وهي تستخدم نهج التعلم التفاعلي المتكامل مع التعلم الذاتي من خلال دورات قصيرة مفتوحة عبر منصة "الدورات الضخمة المفتوحة عبر الإنترنت" (MOOC). وشملت الدراسة أربعة طلاب يتألفون من طالبين وطالبتين، كانوا في المرحلة الإعدادية. ولاستخلاص البيانات ذات الصلة، تم اتباع نهج نوعي مع عينة من المقابلات. تم اختيار المشاركين باستخدام نهج تطوعي بين الطلاب الذين كانوا يأخذون دورة اللغة العربية. تم تسجيل المستجيبين واستخدموا دورة A4STEM عبر الإنترنت باستخدام MOOC لمدة فصل دراسي واحد. تمت مقابلة كل طالب في وقت لاحق ، وتم نسخ محادثتهم يدويا للترميز والتحليل الموضوعي. أظهرت النتائج ردود فعل إيجابية للطلاب على الحزمة الشاملة لوحدة A4STEM. واتفقوا على فعالية محتوى ونهج وحدة A4STEM MOOC. بالنسبة لهم، فإن تعلم اللغة العربية في العلوم البحثية من خلال وضع التعلم المدمج في KGI يناسبهم ويتوافق مع توقعاتهم. يثبت أن A4STEM مناسب وفعال في تحسين الكفاءة في اللغة العربية والعلوم والتكنولوجيا والهندسة والرياضيات. تشير الاستجابات الإيجابية لمحتوى ونهج وحدة A4STEM إلى أن لديها القدرة على مزيد من التطوير والتحسين. من الناحية العملية ، يمكن للمؤسسات التعليمية الأخرى التي تطبق نهج تعليم القرآن والسنة في مواد العلوم والتكنولوجيا والهندسة والرياضيات أن تستفيد بشكل كبير من الوحدة المطورة.

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LIST OF TRANSLITERATIONS

ا	' (a,i,u)
ب	b
ت	t
ث	th
ج	j
ح	h
خ	kh
د	d
ذ	dh
ر	r
ز	z
س	s
ش	sh
ص	s
ض	d
ط	t
ظ	z
ع	' (a,i,u)
غ	gh
ف	f
ق	q
ك	k
ل	l
م	m
ن	n
و	w
ه	h
ي	y

LIST OF ABBREVIATIONS

KGI	KOLEJ GENIUS INSAN
A4STEM	Arabic for STEM
INAQ	Integration of Naqli and Aqli
MOOC	Massive Open Online Course
M-Learning	Mobile Learning
CALL	Computer Assisted Language Learning
GOALS	Global Open Access Learning System
VoIP	Voice-Over-Internet Protocol
STEM	Science, Technology, Engineering & Mathematic
MALL	Mobile Assisted language learning

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