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QURANIC MULTIMEDIA MEMORY MODEL (QM3) FOR  
MEMORIZATION OF HOLY QURAN

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## ABSTRAK

Menghafal Al-Quran merupakan suatu usaha dalam islam yang penting dalam pelaksanaan semangat beragama antara Muslim. Menghafal Al-Quran secara tradisional memerlukan tahap disiplin dan keazaman yang tinggi. Untuk membantu usaha menghafal ini, kajian ini mencadangkan model baru yang melibatkan ingatan teks Al-Quran yang dipanggil Al-Quran Multimedia memori Model (QM3). Campuran kajian yang dilakukan terhadap ingatan perkataan, model ingatan dan kognitif teori pembelajaran Multimedia. Model yang dilaksanakan melalui e-pembelajaran untuk menggalakkan penghafalan yang lebih baik. Lebih daripada 35 orang pelajar dari sekolah menengah awal timur tengah warganegara Libya telah diambil untuk menilai keberkesanan model dicadangkan ini berdasarkan bentuk eksperimen sebelum dan selepas .Keputusan sangat ketara di mana peningkatan prestasi kira-kira 20% ditunjukkan oleh pelajar-pelajar yang terlibat sendiri dalam menghafal Al-Quran yang menggunakan model menghafal yang dicadangkan. Dengan kata lain, QM3 mengurangkan masa yang diperlukan untuk menghafal kira-kira 30% jika dibandingkan dengan kaedah tradisional. Selain itu, QM3 mengurangkan kecenderungan dalam kesalahan untuk kaedah tradisional lebih daripada 80%. Berdasarkan perbandingan QM3 didapati efektif di mana ia mencapai 1.17s disbanding kan dengan konvensional teknik, 1.73s bagi tempoh masa penghafazan. Ini menunjukkan pengurangan masa 32.33%. Keputusan positif juga menunjukkan kecenderungan pengukuran dalam melakukan kesilapan. Di sini, kaedah tradisional menceritakan kemungkinan kesilapan sebanyak 0.15 berbanding 0.03 yang dipaparkan oleh QM3. Kedua-dua keputusan menunjukkan hasil manifestasi yang menjanjikan impak QM3 terhadap penghafalan. Ia boleh juga dirasional dengan alasan yang munasabah bahawa QM3 telah meningkatkan kaedah tradisional dari segi masa dan ketepatan.

## ABSTRACT

Quranic memorization is an essential Islamic repertoire in the implementation of religiosity among Moslems. The traditional manner of memorizing the Quran requires a high level of discipline and determination. To assist the effort of memorization, this research proposes a new model of committing quranic text to memory called the Quranic Multimedia Memory Model (QM3). It hybridizes the study performed on verbatim memory, models of memory and Cognitive Multimedia Learning Theory. The model is implemented via e-learning to promote better memorization. Over 35 students from early secondary school of Middle Eastern Libyan nationality are taken to evaluate the effectiveness of the proposed model based on the pretest and posttest experimental design. The main objective of this study is to develop a new model called Quranic Multimedia Memory Model (QM3). The result is significantly promising whereby a performance improvement of approximately 20% is exhibited by students who engaged themselves in quranic memorization using the proposed model. On the other hand, QM3 reduces the time required for memorization approximately 30% when compared to the traditional method. Furthermore, QM3 drops down the propensity of error for the traditional method by more than 80%. Based on the comparison QM3 is found effective where it achieved 1.17s compared to traditional method (TM). This denotes a 32.33 % time reduction. Positive result is also witnessed for the error propensity measure. Here, the traditional method narrates an error possibility of 0.15 as compared to 0.03 which is displayed by QM3. Both of the results indicate a promising manifestation on the impact of QM3 towards memorization. It can therefore be rationalized with reasonable certainty that QM3 does improve the traditional method in terms of time and accuracy.

## ملخص البحث

تحفيظ القرآن الكريم هو مطلب إسلامي أساسي في تطبيق الدين بين المسلمين. الطريقة التقليدية لحفظ القرآن تتطلب مستوى عال من الانضباط والتصميم. لمساعدة جهود التحفيظ، يقترح هذا البحث نموذجاً جديداً لإنشاء نموذج النص القرآني إلى الذاكرة يسمى الذاكرة القرآنية للوسائط المتعددة QM3. حيث أنها تستخدم الدراسات التي أجريت على الذاكرة الحرفية، ونماذج الذاكرة ونظرية التعلم المعرفي للوسائط المتعددة. هذا النموذج يتم تطبيقه عن طريق التعلم الإلكتروني لتعزيز أفضل للتحفيظ. عينة البحث في هذه الدراسة أخذت أكثر من 35 طالباً في المراحل الأولى في التعليم من المدرسة الابتدائية من الجنسية الليبية في الشرق الأوسط لتقييم فعالية النموذج المقترح على أساس الاختبار القبلي (Pretest) والاختبار البعدي (Posttest) في التصميم التجريبي. النتيجة المتحصل عليها هي نتيجة واعدة بشكل كبير حيث أن أداء الطلاب أو المتعلمين تحسن بما يقرب من (20%) من قبل الطلاب الذين شاركوا بأنفسهم في التحفيظ القرآني باستخدام النموذج المقترح.

من ناحية أخرى، QM3 يقلل من الوقت اللازم للحفظ حوالي (30%) بالمقارنة مع الطريقة التقليدية. وعلاوة على ذلك، حيث أن نموذج QM3 يقلل نسبة الميل لإرتكاب الخطأ الموجود في الطريقة التقليدية بأكثر من (80%). على أساس المقارنة وجدت QM3 فعال حيث حققت s1.17 مقارنة مع الطريقة التقليدية TM. وهذا يدل على انخفاض بنسبة (32.33%) في الوقت المطلوب للحفظ. وشهدت نتيجة إيجابية أيضاً لقياس الميل لإرتكاب الخطأ. هنا، الطريقة التقليدية تشير إلى أن إمكانية إرتكاب الخطأ هي (0.15) بالمقارنة مع (0.03) التي يتم إشارتها من قبل QM3. كل النتائج تشير إلى وجود تأثير واعد من QM3 على التلقين والحفظ. وبالتالي يمكن القول بأن النموذج المقترح QM3 يقوم بتحسين الحفظ بدرجة معقولة أفضل من الطريقة التقليدية من حيث تقليل الوقت المطلوب للحفظ وكذلك دقة الحفظ.

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## ABBREVIATIONS

VM	Verbatim Memory
SM	Semantic Memory
MI	Memory Integration
MSMM	Multi-Store Memory Model
WMM	Working Memory Model
CTML	Cognitive Theory of Multimedia Learning
ID	Instructional Design
EL	E-Learning
TMM	Traditional Memorization Model
QM3	Quranic Multimedia Memory Model
ADDEI	Analysis, Design, Development, Evaluation, Implementation

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