

# Determining a Theoretical and an Empirical-Based Interactive Multimedia Arabic Language Courseware to Teach Arabic as a Foreign Language: Malaysian Experience

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## 1. INTRODUCTION

**ABSTRACT** *The problem investigated in this research was that the majority of foreign language classes are taught with little or no regard for the current field-tested paradigm of foreign language acquisition. Many teachers are using almost an outdated paradigm of teaching in the classrooms. The prime objective of this experimental research was to compare the effect of two different instructional design interventions in teaching Arabic as a foreign language to 3<sup>rd</sup> grade students of Sekolah Taman Setiawangsa Kuala Lumpur Malaysia with a total of 82 students. In the process this research has developed an effective interactive field-tested Arabic Language Courseware called (BAIK) (Bahasa Arab Interaktif Kurikulum) as an alternative paradigm to the traditional learning in Malaysian classrooms. In this research the researcher applied a mixed method approach of quantitative and qualitative design in carrying out the investigation. The independent variables in this research are the methods of instructions (BAIK & traditional methods) while the dependant variables are learners' comprehension, satisfaction, motivation, critical thinking and students' final grade achievements. Instruments used to collect data were Pre-test, Post-test, interviews and questionnaires. Results showed that BAIK statistically improved students' performance in the final exam compared to the traditional method. Results also suggested that BAIK improved learners' attitudes, satisfaction, motivation and perception about learning the Arabic as a foreign language in classroom.*

### Index Terms

Foreign language, Arabic language, Arabic courseware, traditional learning, constructivist learning

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With the increasing emergence of computers and interactive multimedia learning tools, teacher-centered learning is slowly but surely, fading in order to give way to a more meaningful learning environment. Teachers should introduce technology mediated teaching methods in the classroom in order to provide opportunities for the students with different learning styles to perform well. Technology in fact paves the way for more challenging and meaningful learning environments. The use of interactive technology offers an alternative way of content delivery in the classroom. Instructors are advised to blend relevant and useful multimedia in their instruction to make learning more stimulating, motivating and interesting.

Malaysia is rapidly developing in the area of e-publishing. Information technology is reshaping Malaysian educational system. Multimedia instructional materials to teach the Arabic language are seen every where. Unfortunately, the majority of these Arabic instructions are not based on scientific research and field tested paradigm of foreign language acquisition [1]. As a fast way of making money, Arabic e-publishers produce instant Arabic instructional materials and fail to consider educational and socio-cultural context of language learning process.

This research has critically investigated the fidelity of the Arabic Language products available in Malaysian markets based on the theories of the most outspoken and prominent psychologists such as Mayer's Nine Ways to Reduce Cognitive Load in Multimedia Learning (2003), Gagne's Nine Steps of Instructional Events (1985), Keller's ARCS Model of Motivational Design (1988) Reigeluth's Seven Steps of Elaborative Theory of Instructional Design (1999) and Merrill's Eight Propositions of Component Display Theory (1983).

## 11. PROBLEM STATEMENT

The majority of foreign language classes are taught with little or no regard for the current field-tested paradigm of foreign language acquisition. Many teachers are using almost

an outdated paradigm of teaching in the classrooms [2]. This situation is unfortunate for the fast growing learners who want to acquire the knowledge but are deprived of playing a key role in shaping their knowledge transformation [3]. The theoretical framework of this research is based on the constructivist paradigm of learning and teaching. Constructivists allege that to understand how a person learns the instructor must identify the nature of teaching and learning first, before even attempting to teach the language. To teach a foreign language especially the Arabic language, one must admit that it requires careful planning and a thoughtfully designed instruction.

### 111. LITERATURE REVIEW

To understand how the knowledge transforms, how a learner learns and how a teacher teaches, it is very important to know what the psychologists and mind blowing theorists perceive knowledge transformation. According to behaviorist, learning happens only through observable behaviors and is strengthened by reinforcement. The reinforcement can be in the form of rewards or punishments. Behaviorist's theory of rewards deals with the concept of motivation. Its punishment deals with the concept of prevention. This theory is useful as it is a traditional way of teaching by teachers who believe in the concept of rewards and punishments as the only means of education [4]. To behaviorists, man's actions must be controlled as scientists control and influence other natural phenomena [5].

This theory denies the existence of the human mind as a distinct feature between man and animal. To behaviorists man is like a machine, he can be switched on and off. Behaviorists insist that man is like an animal and he has no choice but to adapt to the environment [6]. The theory of behaviorism is in fact a simple theory with an extraordinary message: animals learn and so do humans. Behaviorists further claim that we learn because we follow certain accepted universal laws of behavior and discipline. "*Foolishness is bound up in the heart of a child; the rod of discipline will remove it far from him*"[7].

Constructivists on the other hand, postulate that learning is a hunt for meaning. Learning is an individual development. To constructivist learning is a product of an active process rather than passively waiting to receive it[8]. The purpose of learning is for the individual learner to build her/his own meanings. Piaget one of the prominent educational psychologists of the constructivist paradigm stressed that learners construct knowledge through a rational combination of internal challenges facilitated by the force of environment [9]. These internal challenges are caused by the environment. Environment encourages us to gain knowledge and understand it through a God given brain. To Piaget, human is always in constant evolution. We learn something by the help of our past knowledge. In the process we re-invent new knowledge [10].

Vygotsky another prominent educational psychologist of the constructivist paradigm maintains that there is a strong

relationship between human beings and the environment. This is the culture which mediates our mental actions. Vygotsky places culture at the center of any cognition. Without society there is no chance for the mind to develop. "*Culture can be seen as a way of being that is indexed to the environment. In this sense, an individual's culture can vary as his or her surroundings change*" [11]. Vygotsky believed that natural devices such as sign, concepts and languages guide the behavior of a child. When a child reaches the age of two, he/she starts interaction with society. He regarded the children as a social being. According to him, when a child is born the initial function of his/her speech is social interaction. As such, language acquisition takes place more when children interact with each other in the foreign language environment.

Jerome Bruner of the constructivist paradigm persists that the learner is active, constructive, collective, goal oriented, investigative and thoughtful. Learning is student-centered and learners construct knowledge through their own investigation. The learner has to take initiative for self-testing and constantly checking her/his progress to make sure that all the goals and objectives of the learning are met successfully. In constructivist learning, when students are allowed to make their own investigations, they gain better understanding [12]. Bruner emphasizes that when children in their early ages, try to roll over, sit down, sit up, walk and fall, they are in fact learning based on their own trial and error. As such, in teaching a foreign language the teachers' job is to engage the students in a meaningful dialogue and to guide them when necessary.

### IV. RESEARCH QUESTIONS

1. Do learners in *Bahasa Arab Interaktif Kurikulum* (BAIK) significantly increase their comprehension skills compared to the traditional teaching method?
2. What is the level of satisfaction and motivation experienced by the learners in *Bahasa Arab Interaktif Kurikulum* (BAIK) compared to the traditional method of learning?
3. Does *Bahasa Arab Interaktif Kurikulum* (BAIK) assist learners in their critical thinking skills compared to the traditional method?
4. Are there any significant differences in learners' final grades who taught the Arabic Language using *Bahasa Arab Interaktif Kurikulum* (BAIK) compared to the traditional method?

### V. METHODOLOGY

In this study the researcher applied a mixed methods approach of quantitative and qualitative design in carrying out the investigation. The researcher utilized a qualitative method to collect and analyze data while a quantitative method was used to further strengthen the qualitative data. The independent variables in this research are the methods of instructions (BAIK and traditional methods). The dependant variables are learners' comprehension skills, satisfaction,



footage of the learners showed that students did not pay attention to the teacher. The microphone has managed to record conversations of the students showing their dissatisfaction in the classroom. Many incidents such as students' gesture, gazing, facial expressions and body languages are self-explanatory about difficulties students face in learning the Arabic language using the traditional method.

**C. Effects of Instructional Methods on Learners' Critical Thinking Skills**

Result from this research indicated that BAIK and the traditional method increased both groups' critical thinking skills. However, the BAIK group significantly outperformed the traditional group.

Table 2: T-test Results of the Students' Critical Thinking Skills

	Paired Differences						t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Mean	95% Confidence Interval of the Difference					
				Lower	Upper				
Pair T_pre - T_	10976	7.93608	23941	61469	60482	-4.123	40	.000	
Pair M_pre - M_	12195	9.97546	55790	27059	97331	-5.855	40	.000	

Paired T-test results from table 2 revealed that students in BAIK and the traditional method significantly increased their critical thinking skills. Result also indicated that the t-statistic value for the traditional method was -4.123 while in the multimedia method (BAIK) it was noted at -5.855. Paired t-test indicated that the p-value<0.05 and the significant level was (0.05). As such, students taught using BAIK significantly outperformed their counterpart.

**D. Effects of the Instructional Methods on Learners' final grades**

T-test results revealed that there is a significant increase in students' final grade. (P-value=0.0001 and the significant level is (0.05). Since the p-value =0.0001<0.05, this indicates that there are significant differences in students' final grades that were taught the Arabic language using BAIK.

Table 3: Comparison of Students T-test Results for the final grades (Post tests)

Paired Samples Statistics					
	Mean	N	Std. Deviation	Std. Error Mean	
Pair T_PostT	58.659	41	16.1495	2.5221	
1 M_PostT	79.05	41	14.003	2.187	

  

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 T_PostT - M_PostT	20.3902	23.5604	3.6795	-27.8268	-12.9537	-5.542	40	.000

The results of this research indicated that BAIK enabled learners to achieve excellence in their final scores in the post test compared to the traditional method. The students in the traditional method did not increase their grades significantly because the traditional methodology is based on poor conceptual understanding [15]. It is laudable to note that the significant increase in students' final grade in treatment group was achieved through BAIK.

**VII. DISCUSSION**

This research found that students who were exposed to BAIK (treatment group) significantly improved their comprehension skills, satisfaction, motivation, and significantly improved their final grades compared to the students in the control group. It is also important to note that BAIK and the traditional methods helped both groups to improve their critical thinking skills. Results from the critical thinking section from the pre test signify that the majority of the students in traditional and BAIK classes failed to score in the test. However, it is important to note that traditional group failed to stand in the same level (mean scores) with the BAIK group in the post test results.

**VIII. CONCLUSION**

Results from this research show that the multimedia learning environment such as BAIK motivated learners to continue learning the Arabic Language in the class. Learners' exposure to the multimedia environment such as BAIK also statistically improved students' performance in the final exam. These findings are supported by numerous findings in the field of multimedia education. Results also suggested that the multimedia instruction design such as BAIK improved learners' attitude, confidence, satisfaction, motivation and perception about learning the Arabic as a foreign language in Malaysian environment. As such, this research demonstrated that instructional design such as BAIK when embedded with state of the art technology and blended with the latest theories and paradigms of teaching and learning indeed helps students to excel in their studies. It is interesting to mention that BAIK was incredibly effective in helping students to understand the Arabic concepts. Therefore, the findings designated that the students in the constructivist setting utilizing BAIK fully benefited in comparison to the traditional method.

**IX. IMPLICATIONS FOR EDUCATORS**

The results in this research revealed that developing an instructional design is a complicated task. It requires hard work and exceptional skills [16]. Instruction also entails careful blending of planning, task analysis, experience, intended audience and technical consideration. Furthermore, it is crucial to understand how a foreign language especially the Arabic language is acquired. To understand how a person learns, instructor must identify the nature of teaching and learning first before even attempting to design the instruction.

Because technology is redefining our classrooms, educators need to understand and adapt to different pedagogies in order to improve classroom environment. This research found that BAIK has the potential of changing our classroom environment by enhancing the delivery of information as well as demonstrating useful strategies for productive learning outcomes. As such, teachers should design the instruction for the learners not for themselves. The following are some specific implication of BAIK for the instructors:

- 1 BAIK reduces stress on the teacher because its environment is student centered and the content and methodology have been integrated in the courseware.
- 2 BAIK changes the teachers' job to that of facilitator, thereby allowing her/him to pay more attention to the individual learner in the classroom.
- 3 BAIK ensures quality control of teaching standards as the courseware is constant in quality.
- 4 BAIK reduces disruption of teaching in the classroom in the event of teacher absence or change.
- 5 BAIK is cost effective as it does not depend on the high cost of hiring highly qualified teachers.
- 6 BAIK assists teachers in maintaining high performance of the students as well as producing highly qualified young intellectuals to the society.

## X. FURTHER RESEARCH

This research has investigated the effect of technology and traditional based methodologies in teaching and learning Arabic as a foreign language to the 3<sup>rd</sup> grade students of primary school children. Similar investigation should be conducted using different grade children to find out how these methodologies affect their comprehension skills, satisfaction, motivation, and above all their final grade achievements in the exam. Another study should be conducted to investigate the effect of these two pedagogies on students who are physically disabled to find out how traditional and technology-based methodologies can help them to learn the Arabic language effectively. Further research is necessary to investigate the effect of technology-based learning on older children to examine if there is any significant increase in their critical thinking skills in the classroom.

## X1. LIMITATIONS OF THE STUDY

The results and conclusions of this study are subject to the following limitations: First, BAIK was developed utilizing only one chapter of the Arabic book syllabus. The results can not be generalized and further investigations are needed to examine the effects of using all the chapters from the book. Second, this experimentation was carried out only for a period of six weeks and the results may be affected by some unknown factors beyond the control of this research. This research recommends further examinations by suggesting longer periods of time as well as more samples to test the effectiveness of traditional method and multimedia learning.

Third, the same teacher taught both classes in control and treatment groups and it is beyond the control of this research to avoid the human factor such as bias to one or the both groups.

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