E.R.А – Современная наука: электроника, робототехника, автоматизация

# СЕКЦИЯ 2. ИНФОРМАЦИОННЫЕ ТЕХНОЛОГИИ И МОДЕЛИРОВАНИЕ

# THE EFFECTIVENESS OF A MULTIMEDIA PROGRAM TO DEVELOP VISUAL THINKING SKILLS IN ISLAMIC HISTORY

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**Abstract**: The study aimed to evaluate the effectiveness of a multimedia program in enhancing visual thinking skills in Islamic History among students at Taiz University, Yemen. A semiexperimental single-group design was employed, with pre- and post-tests conducted. The sample consisted of 36 male and female students from the Department of Qur'an Sciences. The researcher developed a multimedia program for visual thinking skills and conducted tests to measure these skills. The results revealed significant improvement in visual thinking skills among the students after using the multimedia program. The program proved to be effective in teaching the Rightly Guided Caliphs Unit of the Islamic History course, surpassing the average earning ratio for Black (with an earning ratio of 1.212). The findings suggest that faculty members should incorporate multimedia programs into their teaching methods, particularly in Islamic history courses, to keep up with new advancements and leverage their positive impact on knowledge and skill development.

Key words: Multimedia, Visual thinking, Skills, Islamic history, Effectiveness.

#### Introduction

Human societies, with their different ideas, race to employ the mind (thinking) in order to get ahead of their competitors, and spend huge amounts of wealth. In order to pass on its results to generations, so that they can build their plans and hopes on it towards the future that is promising in their view Changzai, Y. (2000), Jean Margaret Plough (2004) and Kariuki, P., Paulson., R. (2001). In our time, we see the traditional style of education prevailing, especially teaching Islamic history. Where indoctrination, recitation, and a little discussion, without taking into account the student's role and participation, and giving him the opportunity to think and express, and based on the lack of studies that touched on the development of visual thinking skills in Islamic history, the researcher saw it necessary to study research that addresses this field.

#### **Results and discussion**

Multimedia educational programs are of great importance in improving the level of students. It helps to develop their scientific thinking, and allows them to benefit from technological means and tools in acquiring skills, and their enthusiasm for the academic subject, and given the scarcity of studies in this field and the weak level of students in knowledge of their history, the presence of difficulty in the course, weak understanding of it, and the lack of its contents in teaching thinking skills. The researcher saw it appropriate to prepare research in the field of Islamic history, and therefore the researcher formulated the problem of the study in the following questions what is the effectiveness of a multimedia program for developing visual thinking skills in Islamic history among students of the Qur'anic Sciences Department (basic education), College of Education, Taiz University?

Research assumes that there are no statistically significant differences at the significance level  $(0.05 \ge \alpha)$  in the visual thinking test between the average scores of the students before and after applying the program. The importance of the research is that keeping pace with technology of all kinds, especially visual ones, and trying to employ it in teaching Islamic history. In its theoretical background, it provides a scientific knowledge structure in the field of applying educational technology in teaching, enabling researchers, professionals, and practitioners to benefit from it. Through his proposals, he opens new research horizons to new researchers that help them determine

their research topics. The research aims to know that visual thinking skills to be developed in Islamic history for students of the Qur'anic Sciences Department at the College of Education - Taiz University. The difference between the average scores of the pre and post application in the visual thinking skills test among students of the Qur'anic Sciences Department at the College of Education - Taiz University. The effectiveness of using a multimedia program to develop visual thinking skills in Islamic history for students of the Qur'anic Sciences Department at the College of Education - Taiz University.

According to the results reached by the researcher, it recommended that updating the vocabulary of the Islamic history course in line with developing visual thinking skills. Holding training courses for faculty members on how to design multimedia to develop visual thinking skills.

#### Conclusion

Suggestions in light of the research results and recommendations, the researcher proposes that conducting further studies in Islamic courses - for various university levels - related to visual thinking and its skills, such as: Tajweed, doctrine, the biography of the Prophet, the history of the Umayyad and Abbasid states, jurisprudence. Conducting a similar study by applying this multimedia-based program to a sample of deaf students.

#### References

1. Changzai, Y. (2000). Teaching Upper Secondary School Mathematics on Real Number System Through Re-Medial Computer Assisted Instruction. Pongchawee Vaiyavutjamai University.

2. Jean Margaret Plough (2004). Students Using Visual Thinking to learn Science in a Webbased Environment, Doctor of Philosophy, Drexel University.

3. Kariuki, P., Paulson., R. (2001). The effect of computer animated dissection Versus preserved animal dissection on the student achievement in a high school biology. U.S... Tennessee. Eric Document No: ED460018.

### URBAN ROBOTICS AND AUTOMATION: AN ASSESSMENT OF LITERATURE IN MIDDLE EASTERN COUNTRIES Abdulfatah Abdussalam Abdulwahed

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**Abstract**: Worldwide urban communities are trying imaginative mechanical and automation technologies in numerous parts of financial and public activity. This paper analyses how mechanical technology and automation systems are being added to metropolitan advanced organizations to improve human office and framework organizations and change the city and residents' day-to-day routines. This field has seen for the most part speculative and confined work. Our examination plan goes past discrete applications and impacts to inspect how mechanical technology and automation interface across metropolitan areas and their consequences for respectful metropolitan geologies, particular individual upgrade and aggregate framework the executives, socio-spatial arranging of urban communities, and dependable metropolitan advancement.

Key words: Technologies, Robotics, Eastern Countries.

#### Introduction

The emergence of urban robotics and automation technologies presents new opportunities and challenges for cities worldwide. Middle Eastern countries, known for their rapid urbanization and technological advancements, have increasingly embraced robotics and automation to address urban challenges. This report aims to assess the existing literature on urban robotics and automation in Middle Eastern countries, exploring the applications, benefits, and challenges associated with these technologies in urban environments.

#### **Results and discussion**

Four innovation waves have spread automation all through current progress. Modern automation started during the 1950s with sequential construction system robots and large scale manufacturing controlled by power. The 1980s saw a change from simple to advanced hardware