

Exploring Digital Technology Use in the Inspection Process of Physical Educational Inspectors. A Field Study on the education directorates of Algiers state

استكشاف استخدام التكنولوجيا الرقمية في عملية التفتيش لمفتشي التربية البدنية.
دراسة ميدانية على مديريات التربية لولاية الجزائر

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Abstract

This research aimed to explore the current use of digital technology by physical education inspectors during the inspection process. The study employed a descriptive research method, with a sample of ten physical education inspectors selected through simple random sampling. Data was gathered using a questionnaire and analyzed using the Statistical Package for the Social Sciences (SPSS) to produce descriptive statistics. The findings revealed that, despite recognizing the benefits of digital technology in enhancing their professional duties, physical education inspectors do not incorporate it into their inspection practices. Consequently, the study recommends the adoption of digital technology as a valuable tool to streamline the inspection process.

Keywords: Physical Education, Inspection, Inspectors, Digital Technology, Education Directorates.

المخلص

تهدف هذه الدراسة إلى التعرف على حقيقة استخدام التكنولوجيا الرقمية في عملية التفتيش لدى مفتشي التربية البدنية والرياضية، بحيث اتبعنا المنهج الوصفي، وتم اختيار 10 مفتشين للتربية البدنية والرياضية باستخدام طريقة العينة العشوائية البسيطة. تم توزيع الاستبيان لجمع البيانات على عينة البحث، وتم عرض البيانات التي تم جمعها، لذا توصلنا في الأخير إلى أن مفتشي التربية البدنية والرياضية لا يستخدمون التكنولوجيا الرقمية في عملية التفتيش على الرغم من أنهم يدركون أن الرقمنة تقدم الدعم المهني للقيام بمسؤولياتهم بشكل فعال، ولهذا يوصى الباحثان باستخدام التكنولوجيا الرقمية كوسيلة إيجابية لتسهيل عملية التفتيش.

الكلمات المفتاحية: التربية البدنية؛ المفتش التربوي؛ التكنولوجيا الرقمية، التفتيش، الرقمنة.

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1- Introduction

The debate about the role of technology in education has been a major topic for ages, teaching devices was first recognized in the 1960. Nowadays, the effect of technology on society is a key subject, with endless discussions about the easiness of the access to online information shapes knowledge and learning. Moreover, there is frequent media coverage about how technology affects the social, emotional, and physical development of youth. Despite the struggling in integrating digital technologies into education, their use in schools should not be underestimated.

The major purpose of school inspection is to highlight standards by critically look into the teaching and learning environment. Focused on observing and assessing schools' learning performance, inspection aims to maintain and raise students' learning quality. It seeks to improve all aspects that effect learning and teaching in schools. However, studies on school inspection and improvement, primarily from England, Wales, the Netherlands, and some African countries, emerge a disagreeing relationship between teachers and inspectors. Some research indicates that inspectors mainly point out faults during their school visits, with less effect on teaching or learning. (Nkinyangi, 2006).

This study aimed to explore the use of digital technology in the inspection process by physical education inspectors and assess how well inspectors are prepared to assist teachers with curriculum implementation. Additionally, it examined inspectors' understanding of their role, offering valuable insights into how they support teachers in implementing the curriculum in their schools.

❖ Study questions:

• The general question:

- What is the reality of the use of digital technology in the inspection process of physical education inspectors?

❖ Hypotheses:

• General Hypothesis:

- Physical education inspectors do not use digital technology in the inspection process.

2. Materials and methods

2.1- Research Design

A descriptive approach was adopted in this study as it aligns well with descriptive research, which focuses on collecting data to answer questions about the present condition of the study's subjects. A survey design was chosen as it enabled the researcher to gather information on the current use of digital technology in the inspection process by physical education inspectors within the education directorates of Algiers state, Algeria, and to derive conclusions based on the results.

2.2- Population and study sample

The target population for this study comprised all physical education inspectors from the education directorates in Algiers state, Algeria. To ensure a representative sample, ten physical education inspectors were randomly selected from these directorates.

2.3- Study Instruments and Procedures

The primary data collection tool for this study was the questionnaire. This method was particularly suitable as all the school inspectors in the sample were literates and capable of completing the questionnaire without difficulty. The questionnaire was used to collect data from school inspectors

- **Psychometric test properties:**

- ❖ **Test validity:**

Quality control and validity of the questionnaire were ensured through face validity during its development. The researcher's supervisors reviewed the instruments to confirm that they accurately measured the intended concepts.

2.4 - Data Analysis

Basic descriptive statistics, including mean values and standard deviation, were calculated along with the Chi-Square (χ^2) test. The collected data was entered into a computer and analyzed using SPSS software.

3. Results and discussion

3-1-Results

The study sought to examine the actual use of digital technology in the inspection processes carried out by physical education inspectors in the education directorates of Algiers state, Algeria. This chapter presents the data, provides interpretations, and discusses the findings, with the presentation aligned with the study's objectives.

Table 1: Research sample responses and frequencies and Chi Square χ^2 about: The reality of the use of digital technology in the inspection process of physical education inspectors.

Questions	Suggestions	F	χ^2	χ^2 table	Df	Sig level	Sig
In general, what are your preferences? *old system (boards, paper, pen...etc) ? *new system (computer, smart boards ...etc)?	Traditional Technology	01	6.4	3.84	1	0.05	S.S
	Digital Technology	09					
Does the new system technology helps you to be more performant in your work?	YES	09	6.4	3.84	1	0.05	S.S
	NO	01					
How important technology is use when you work?	Productivity	01	9.8	5.99	2	0.05	S.S
	Efficiency	01					
	Both	08					
In general, what is your work importance do you think technology has in the performance of your work ?	Time	01	9.8	5.99	2	0.05	S.S
	Quality	01					
	Both	08					

Source: the researchers based on the study results

Table 2: Research sample responses and frequencies and Chi Square χ^2 about: The reality of the use of digital technology in the inspection process of physical education inspectors.

Questions	Suggestions	F	χ^2	χ^2 table	Df	Sig level	Sig		
Do you think that you are capable of using digital technology in the inspection process ?	YES	04	0.4	3.84	1	0.05	No.S		
	NO	06							
Basically, would you say that you excel or you have skills in the use of technology ?	YES	03	1.6	3.84	1		0.05	No.S	
	NO	07							
Have you had any training for the use of technology in the inspection process?	YES	01	6.4	3.84	1			0.05	S.S
	NO	09							

Source: the researchers based on the study results

Table 3: Research sample responses and frequencies and Chi Square χ^2 about: The reality of the use of digital technology in the inspection process of physical education inspectors.

Questions	Suggestions	F	χ^2	χ^2 table	Df	Sig level	Sig		
Is it mandatory to use technology in the inspection process?	YES	0	10	3.84	1	0.05	S.S		
	NO	10							
Is the use of digital technology is urged or is incentivized by the directorate of education?	YES	01	6.4	3.84	1		0.05	S.S	
	NO	09							
Is all the means of digital technology you need for the inspection process are at your disposal?	YES	0	10	3.84	1			0.05	S.S
	NO	10							
has using technology been gratifying somehow ?	YES	0	10	3.84	1	0.05			S.S
	NO	10							

Source: the researchers based on the study results

The results and analysis of the inspectors' responses, along with the Chi-Square (χ^2) test, reveal several significant findings. Most inspectors showed a preference for digital technologies over traditional ones, as evidenced by a Chi-Square value of 6.4, which

was higher than the Chi-Square table value of 3.84, indicating statistical significance at the 0.05 level. Additionally, inspectors expressed a positive attitude towards digital technologies, believing that their integration is crucial for effectively fulfilling their responsibilities, with a Chi-Square value of 6.4 surpassing the table value of 3.84.

Furthermore, inspectors acknowledged that technology enhances effectiveness and productivity, with a Chi-Square value of 9.8 exceeding the table value of 5.99. Most inspectors recognized the benefits of digital technologies, with a Chi-Square value of 9.8

also greater than the table value of 5.99, and noted that technology supports time management and quality. Six inspectors reported successfully using digital technology in inspections, while four did not. Seven inspectors considered themselves generally competent with technology, whereas three did not.

Most inspectors had not participated in training courses for digital technology, with only three having undergone such training; this is supported by a Chi-Square value of 6.4 exceeding 3.84. All inspectors indicated that they did not use technology in inspections, with a Chi-Square value of 10 surpassing the table value of 3.84. They also noted the unavailability of necessary digital tools, with a Chi-Square value of 10 greater than 3.84. The majority felt that the Directorate of Education does not promote the use of digital technology in inspections (Chi-Square value of 6.4 exceeding 3.84), and all stated that there were no rewards for using technology, supported by a Chi-Square value of 10 greater than 3.84.

3-2- Discussion

Based on the findings, it is evident that physical education inspectors do not use digital technology in the inspection process several issues affect their use, including understanding why to use digital technologies; the fear in how to handle challenges rising with using digital technologies. Salavati (2013) asserts that Despite the challenges of utilizing digital technologies in education and teaching, the importance of the adoption and use of digital technologies in school education should not be underestimated. This importance has been acknowledged and addressed, not only by scholars and researchers, but, also, on regional (south of Sweden), national (Sweden), and European (European Union) authority levels.

Furthermore the lack of participating in training courses to use digital technologies; and the fact that the use of digital technologies is not rewarded or encouraged by the directorate of education, in this context and according to Mathew (2012), inspectors should be given a chance to participate in conferences, seminars and workshops so that their skills in all aspects of schools administration and in the area of inspection can be improved. We can say that inspectors also need to go into training, which will facilitate better implementation of the curriculum. Observation is significant for effective

implementation because it provides the limitation and the suitability of new ideas during the implementation process.

This findings are an indicator that digital technology means are not available, physical education inspectors do not even have digital technologies such as the network at their workplace, Grek and Lindgren (2015) provide evidence of increased concern among European inspectorates of education to protect their claims to authority by constructing a new technology of inspection, in which they attempt to position themselves as mediators of the relationship between expertise and data, with an emphasis on the uniqueness of their position as directly observational of school sites and practices.

Conclusion

This research investigated how Physical Education Inspectors use digital technology from their own perspectives. It found that these inspectors typically do not utilize digital tools due to various practical barriers and challenges. Despite acknowledging the benefits of technology for performing their jobs effectively, they often face difficulties because of inadequate office space and limited resources, such as phones and computers, which complicate their daily tasks.

The inspection process reveals several deficiencies, including insufficient classroom observations, ineffective communication strategies, and irregular visits. There is a need for physical education inspectors to receive training in school management, communication techniques, and modern professional practices through conferences and seminars, with a focus on integrating digital technologies into their work. While this study provides insights into the current use of digital technology in physical education inspections, further research is needed to explore the role of inspectors in promoting effective curriculum implementation.

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