

Improving the performance of Educational Leaders in North Sinai Governorate in Light of the Digital Leadership Approach

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Abstract:

The current research aims to improve the performance of education leaders in North Sinai Province by introducing digital leadership, and the researchers used descriptive methods, the research community is composed of school agents and principals from six education departments in the province, one general secretary, one department director, and one department head working in the provincial education bureau. The questionnaire survey targets 265 people, this study yielded several results, the most important of which is that the leadership of the education sector rarely holds meetings through digital platforms, and the organizational structure of the education sector does not meet the requirements of digital transformation, the education management leadership is unable to digitally monitor the performance of educational institution staff, and there is no digital library available, this study suggests that it is necessary to: (1) have sufficient willingness to achieve the transition to digital leadership. (2) Publish laws, legislation, regulations, and ordinances to ensure optimal application of digital leadership based on proposed dimensions. (3) Provide diverse training programs while offering human experience and skills with education and international

experience. (4) Allocate sufficient budget to provide an excellent digital environment for education. (5) Education leaders are fully aware of the importance of applying digital leadership dimensions.

key word: Wise leadership, digital age, digital citizenship, innovation, knowledge.

Research Introduction:

The world is witnessing constant change and development; in a stage known as the information age, then the post industrial age, finally the era of knowledge and globalization, and finally the era of the fourth industrial revolution, the last to appear in the digital transformation of various fields of life, this has become an inexplicable reality, and the digital transformation in the field of life will in turn affect the tasks and work required by community institutions. Therefore, it is necessary to provide institutions that take into account the significant progress and development of the digital age, like other institutions, educational institutions are striving to address the challenges of digital transformation to adapt to the ongoing digital and technological revolution in the world, and to cope with all aspects of life development.

It can be said that with the introduction of digital leadership, the performance of education leaders in North Sinai has improved, which is a result of society becoming more reliant on technology, therefore, leaders have a responsibility to harness the power of digital technology, create an attractive and meaningful management culture, play more diverse roles, and provide them with sufficient support for effective performance development, effectiveness and empowering them to change educational institutions, as they are the main focus of educational reform efforts, Without relying on leaders who can understand the requirements for improvement, such improvement cannot be successful, therefore, a study was conducted on the current research, which focuses on improving the performance of education leaders in North Sinai Province through the introduction of digital leadership.

Learning problem:

The results of several studies indicate that Egyptian education leaders, especially those in the northern Sinai Peninsula, face a series of shortcomings; she explained that the effectiveness and efficiency of educational institutions largely depend on the adequacy and effectiveness of their leadership performance, as well as their practical level of design and emerging skills and leadership roles; therefore, any process designed to develop the performance of educational administrative leadership must start from the reality of practical performance and compare it with the performance to be practiced, in order to determine the performance gaps revealed in the performance evaluation process, it provides comprehensive and diverse information about existing leadership practices and makes necessary development decisions based on it, this gap lies in the lack of a comprehensive and integrated performance evaluation system for middle-level leadership to measure the excellence of performance, which in turn leads to the improvement and development of performance; the follow-up of these leaders has become dependent on writing non innovative routine reports, which has led to poor performance of educational institutions and subsequently resulted in weak educational products(Sabah Said Abdul Rahman, Murad Saleh Murad Zidane, Aza Nadi Abdul Zahir Abdul Abdul Bakki, 2022).

It is evident that pre university educational institutions urgently need to adopt digital leadership methods due to their advantages, it can play a role in overcoming several issues, thereby improving the management performance of these educational institutions in the context of digital transformation.

Therefore, the research question can be concretized into the following main questions: Given the introduction of digital leadership, how to improve the performance of education leadership in North Sinai province? He raised the following questions:

1-What is the theoretical basis of digital leadership?

2-What is the theoretical basis for improving the performance of educational leaders?

3-Given the introduction of digital leadership, what is the practical reality of improving educational leadership performance in North Sinai province?

Learning courses:

The current research follows the descriptive method, which is the most appropriate research approach for this study; he is interested in seeking accurate descriptions of phenomena in research based on the collection, classification, and processing of facts and data, as well as analysis of the current situation (Fuad Abu Hattab, Amal Sadiq, 1991); This is the most appropriate method to answer the current research question.

Research objective:

The current research aims to achieve the following goals:

- 1-Defined the theoretical foundation of digital leadership.
- 2- Defined the theoretical basis for educational leadership performance.
- 3-Based on the introduction of digital leadership, reveal the reality on the ground to improve the performance of education leaders in North Sinai province.

The Importance of Research:

The importance of current research and the reasons for its conduct are reflected in two aspects:

1. **Theoretical importance;** Given the introduction of digital leadership, it is hoped that current research will contribute to enriching educational libraries and improving the performance of educational leaders, this will also help draw researchers' attention to the importance of this topic at the academic level.
- 2- **Importance of application;** hope that current research can reveal the reality on the ground and draw conclusions on how to improve the performance of education leaders in North Sinai Province based on the introduction of digital leadership; education officials in the province can benefit from this and may potentially benefit from research findings to guide the improvement of educational leadership

performance in educational institutions, enter a suitable work environment and achieve a digital driving entrance for all employees.

Limitations of learning:

1-Objective limitations: This study is limited to determining the reality of improving educational leadership performance in North Sinai Province based on the introduction of digital leadership.

2-Space limitations: This study is limited to field applications in schools across six education departments in North Sinai Province and the North Sinai Education Bureau.

3- Time limit: This is the time period for conducting field research in the first semester of 2024-2025.

4-Limitations of humanity: This study is limited to a sample of opinions from school agents and principals in six education departments (Alish, Bir Abd, Sheikh Zuweid, Rafah, Hasanah, neghel), (Director General Department Director Department Head) works at the Education Bureau of North Sinai Province.

Research terminology:

Language improvement: Action source (improvement): Beauty and decoration, it is said that the situation has improved: becoming better than before(Arabic language synthesis, 2001).

Performance is a language: actions (leading to) the source of things: doing. Religion has come to an end, and prayer has been ongoing for some time. -The testimony he provided. (Performance): Performance, recitation(Arabic language synthesis, 2001).

Performance Terminology: Performance is the product of specific efforts made by individuals or groups to complete specific tasks assigned to them(Ahmed Zaki Badawi and Mohammad Kamal Mustafa, 1984).

According to the nature of current research, improving the performance of educational leadership is defined procedurally as "improving the management and leadership practices of educational department leaders in educational institutions".

Leadership Language: Action Source (Leader) Diligence - Fuel, Leader: Walking in front of her with her Commander, Army: His Head and Commander, and (Commander): Who leads the army, who leads the band or orchestra, convened by the Commander and Commander(Arabic language synthesis, 2001).

Educational Language: Behavioral Source (Learning): Knowing and Mastering(Arabic language synthesis, 2001).

Educational leaders can define through programs: "she is a senior leader represented by the North Sinai Department of Education, school directors and agents, as well as six education departments in North Sinai Province, to support and authorize the staff of educational institutions to implement ministerial level decisions and achieve expected educational goals".

Number Language: the source of the action (number) for this book, which includes a number: his book, and a dot displaying the letter(Arabic language synthesis, 2001).

Digital leadership can be defined programmatically:"this is the ability of educational leaders to exercise leadership through a range of digital technologies and tools, such as mobile devices, communication applications, network applications, and electronic platforms, artificial intelligence, big data, and employees (managers and teachers) use it to achieve sustainable changes in the organizational culture, mission, goals, and management processes of educational institutions".

Previous research:

Firstly, research related to the performance of educational leaders:

- 1- This research (Mohammed Ibrahim Abdul Aziz, 2018) is entitled "Proposed mechanism for developing the performance of education leaders in the the Arab Republic of Egypt based on the method of building professional competence", its purpose is to determine the theoretical basis for the professional capacity building stage in contemporary administrative thought, and analyze some formulas for contemporary administrative updates and their role in the professional capacity building of leaders in the Egyptian education sector, the case study method used to study the professional competence of leaders in the education department of Ismailia Province was used as a model for the Egyptian education department, this study has produced results: the most important of which is the poor practice of some professional abilities by the leadership of the education sector, manifested in productivity and technical abilities, leadership abilities, and personal abilities, this study suggests B: Provide a proposed mechanism to develop the performance of the Egyptian education sector leadership using the entry point of professional capacity building.
- 2- Research (Zain Abidin Wahid Hassan, 2020) titled "Developing School Leadership Performance Based on the 2014-2030 Strategic Plan (Field Study)", its goal is to establish a knowledge and conceptual framework for the 2014/2030 pre university education strategic plan, and develop a proposed vision for management performance development based on the 2014/2030 pre university education strategic plan, using analytical descriptive methods, the survey questionnaire is used as a research tool for school leaders in primary education to identify obstacles they face and hinder them from achieving the goals of the 2014/2030 strategic plan, this study has produced results: some school leaders lack understanding of national education standards, and the standards for evaluating the performance of school staff are unclear, the comprehensive training courses for school leaders are weak, and according to the 2014/2030 pre university education strategic plan, obstacles to the development and management performance have been overcome, research recommendation B: Empower school leaders with sufficient power and authority to make necessary changes in primary schools and make appropriate decisions for the school,

activate the communication mechanism between primary schools and local communities to improve their relationship, provide schools with information networks (Internet), projectors, computer equipment and other technical means, and provide technical and administrative supplies.

Secondly, research related to digital leadership:

1. Research) Lander , 2020 (: The report is titled 'The Relationship between Digital Leadership Pillars Consistent with School Managers' Values and Behaviors and Teachers' Use of Technology', with the increasing use of educational technology, one of the biggest problems faced by school administrators is that most managers are not adequately prepared to become technology leaders, this is due to a lack of training and guidance on how to effectively support teachers in integrating technology into classroom management skills. The purpose of this study is to determine the relationship between leadership pillars, middle school administrators and teachers from three school districts in Suffolk County, Long Island, New York participated in this study, and the administrators received primary leadership questionnaires and educational technology outcome questionnaires, this determines the frequency and type of technology they use in the classroom, and the use of teacher technology is divided into three different categories: administrative and organizational tasks, planning and providing guidance, and student use, both surveys were specifically designed for this study and reviewed by local experts, and the results found that digital driving pillars cannot predict teachers' use of technology in any category.

2. Research (Asma Awad Nahar, 2024), its title is "Digital Leadership and Its Relationship with Public School Performance", with the goal of defining digital leadership and its relationship with public school performance, and using relevant descriptive methods, in order to achieve the objectives of this study, a questionnaire survey consisting of two axes was developed. The first axis specifically studied the level of digital leadership practices of the principals of public schools in the Kasba Madaba Tourism Education Bureau from the perspective of teachers, the study is divided into three areas (task execution, environmental execution, and reverse execution), and the research sample consists of 330 male

and female teachers, the result of this study is that the digital leadership practice level of the principals of public schools in the Kasba Madaba Tourism Education Bureau is high, and it indicates that from the perspective of teachers, their job performance level is at a moderate level, from the perspective of education bureau teachers, there is a positive correlation between the degree of digital leadership practice by school managers and task execution, environmental performance, and job performance, which is statistically significant, this study suggests B: Invite principals to actively participate in conferences and seminars focused on digital aspects of school management, reducing their burden and tasks to help improve their work performance.

Thirdly, research on educational leadership and digital leadership:

- 1- This study (InAs Ahmed Fathi, 2022) is titled "Proposed List of Digital Driving Practices in Egyptian Schools According to the International Association for Technology Education Leadership Standards", its goal is to develop school leadership practices in Egyptian schools through a proposed checklist of digital leadership practices in Egyptian schools, in accordance with the International Association for Technology Education Leadership Standards, within this framework, the overall framework of the study was determined, and the theoretical framework of digital leadership in educational institutions was established from the following aspects: concepts, characteristics, requirements, dimensions, and their importance to the educational environment, as well as the basic skills and characteristics of digital leadership, the role of leaders in the digital age, methods for practicing digital leadership, and tools for integrating it into educational institution management are also described in official documents and reports on the reality of educational leadership practices in Egypt's early childhood education institutions, according to the Education Leadership Standards of the International Association for Educational Technology, a survey was conducted on a group of education management professors regarding the proposed practice checklist, finally, the final version of the proposed checklist for digital driving practices in Egyptian schools was developed in accordance with the Education Leaders Standards of the International

Institute of Technology, the analytical descriptive method was used to answer the questions raised in the study, and a questionnaire was used to survey the opinions of a group of educational management professors, proposed List of Digital Leadership Practices in Egyptian Schools According to the International Association for Technology Education Leadership Standards.

General comments on previous research:

The researcher found, through presenting previous studies with their axes, that some of them focused on the variable of educational leadership performance, while others focused on the variable of digital leadership. There are studies that dealt with the variables of educational leadership and digital leadership together.

Within the scientific scope of researchers, there are not many studies that combine these two variables together. Generally, researchers are able to determine similarities and differences and report them as follows:

- **Similarities:** The current research is similar to some previous studies in handling educational leadership variables, and similar to other studies in handling digital leadership variables; it is also similar to using descriptive methods and questionnaires as research tools.

Difference: The first study will be conducted within the scientific scope of researchers studying digital leadership education leadership, therefore, the current research differs from previous studies, the research community is also different, as it comes from North Sinai province.

- **Benefits:** Previous research helps researchers showcase areas worth studying: Researchers benefit from previous studies to determine research titles and clarify research questions, when choosing courses and learning tools, setting objective boundaries for learning, and defining learning terminology.

Steps to continue learning:

The research will be conducted according to the following steps:

Step 1: Overall framework of research: including introduction, formulation of research questions, problems, methods, and tools, determination of their objectives and importance, limitations, research terminology, followed by previous research and steps forward.

Step 2: Theoretical Framework: This includes reading previous literature and research to prepare a theoretical framework, digital leadership concepts, goals, importance, reasons, characteristics, requirements, and dimensions, as well as educational leadership practices, the concept and objectives of educational leader performance, the importance of effective performance, and the basis for selecting educational leaders, based on the requirements of the Fourth Industrial Revolution and the development of educational leader performance, the dimensions of educational leader performance.

Step 3: Application Framework: Based on the introduction of digital leadership, improve the performance of leaders in secondary education in real-life situations. This includes researching samples and their characteristics, determining questionnaire objectives and axes, and preparing and controlling initial learning tools, measure its authenticity and stability and obtain the final image, study the research community and determine samples representing the research topic and applicable research conditions, distribute questionnaires and obtain answers from the research samples and retrieve them, use the Social Science Statistical Data Package (SPSS) to input data into a computer and perform statistical processing to extract results and their interpretations.

Study results:

The field study showed a number of results, the most important being the following:

A. Strengths: They are as follows:

- Education sector leaders rely on digital information to make decisions.
- The educational management leadership uses online media in the administrative process.

- Educational management leaders build positive relationships with employees of educational institutions.
- Educational management leaders rely on the sustainable professional development of employees in educational institutions.
- Educational Management Leadership Development Digital Competence of Employees in Educational Institutions.
- Educational management leaders adhere to ethical principles in preparing educational content.
- Educational management leaders have a strategic vision.

B. Weaknesses: as follows:

- Education sector leaders rarely hold meetings through digital platforms.
- The organizational structure of the education sector does not meet the requirements of digital transformation.
- The educational management leadership is unable to digitally monitor the performance of employees in educational institutions.
- The leadership of the education department does not have a digital library.
- The leadership of the education department rarely participates in conferences (meetings seminars) related to digital learning.
- Lack of dissemination of a culture of physical and moral stimulation for employees of educational institutions.
- Poor facilitation of access to digital information resources by education management leaders.
- The educational management leadership is unable to use digital applications and systems to guide and protect all employees of educational institutions.
- The opportunities for electronic information exchange and sharing between the leadership of the education department and employees of educational institutions are limited.
- Lack of use by education management leaders of management strategies and guidelines to enhance the information security of their data.
- Lack of incentive for educational management leaders working in educational institutions to put forward their innovative ideas.
- Poor setting of educational management leaders strategic goals to improve the performance of employees in educational institutions.
- Failure to provide education management leaders with networking systems between their administrative units and educational institutions.

- Education department leaders lack the use of digital knowledge in persuading educational institution staff.
- The leadership of the education department lacks the skills to develop persuasive information for educational institution employees.
- Lack of use by educational management leaders of appropriate vocational terms to describe the performance of employees in educational institutions. In other words, it's the same
- Poor balance between job requirements and the needs of employees in educational institutions.
- Few educational management leaders use digital applications to promote new ideas to employees of educational institutions.
- Lack of interest by education management leaders in forming work teams.
- Poorly organized educational management leadership training programs for employees of educational institutions. In other words, it's the same.
- Poor provision of digital Internet services by education management leaders in educational institutions.
- Lack of digital learning opportunities for employees in educational institutions. In other words, it's the same.
- Poor provision of work-related digital learning resources to employees of educational institutions.
- Based on the research findings, researchers have developed a proposed vision to enhance the performance of leadership in secondary education in North Sinai province, with the introduction of digital leadership, Including the concept, idea, goals pursued by the proposed concept, starting point, elements, and implementation requirements of the proposed concept,
- the proposed visualization concludes with the obstacles that could impede the application of the proposed visualization and ways to overcome them

Research suggestion:

This study suggests that it is necessary to:

- (1) There is sufficient willingness to transition towards digital leadership.
- (2) Publish laws, legislation, regulations, and ordinances to ensure optimal application of digital leadership based on proposed dimensions.

(3) Provide diverse training programs while offering human experience and skills with education and international experience.

(4) Allocate sufficient budget to provide an excellent digital environment for education.

(5) Education leaders are fully aware of the importance of applying digital leadership dimensions.

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