



Some Web 0.2 Skills to Support Digital Leadership the Directors of Education

Amal Al-Siteha

Kindergarten Guide- West Tanta Educational Administration, Doctor of Philosophy in Education, Faculty of Education Tanta University, Egypt
amalalasaiteha2023@gmail.com

Abstract

The objective of the research is to prepare a program in some of the 0.2 web skills, and to learn about the effectiveness of the program in supporting digital leadership in the education managers of the Arab Republic of Egypt by acquiring some of the 0.2 web skills of the education managers. The research sample consisted of (30) Kindergarten teacher, and their career grades were (first teacher/first teacher a/expert teacher/senior teacher) Research from one experimental group (before/after), the research used the semi-experimental curriculum, and the researcher used the Skills Observation Card (WHB) 0.2 in its dimensions. (Burpoint, Blogs, Thames, Wiki Application), and the researcher statistically analyzed the data using the statistical package. (SPSS, V28), the results showed the effectiveness of web skills 0.2 in supporting digital leadership of school principals and supervisors, as: Effective communication and collaboration based on digital resources improves the effectiveness of leading the promotion of learning and change for the better quality training for kindergarten managers is an important determinant of the quality of preschool education, To increase the quality of education, managers and teachers must be provided with the necessary knowledge of technological and digital resources. Using some web apps 0.2 helped managers and teachers create metrics data collection and analysis, interpretation of results, sharing of results to improve staff performance and children's learning, and implementation of workshops and production of a dependent resource

Keywords: Digital Leadership, Digital Ethics, Digital Efficiency, Innovation Implant, Web Skills 0.2, Kindergarten

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Introduction

Technology-based education and training is a successful process of using advanced technologies for 4G technology such as computer software, Internet and social networks to integrate technology into the educational environment and contribute to the realization of the knowledge society. The new generation is characterized by greater ability and speed in the use of technology and its different means, which increases the importance of the use of technology in the teaching and learning process.

Technology has changed the way managers are trained and teachers are helped to learn and develop, and increased access to technology resources and computers suggests a greater need to facilitate the effective use of technology in teaching and learning services (Reston, 2015, 12).

Digital transformation includes continuous changes in ICTs, rapid adoption of these changes, reshaping the context and structure of organizations (Rogers, 2016), and two important areas for success in one's digital transformation have been highlighted: leadership capabilities, activation and implementation of digital transformation, and leadership capabilities needed to succeed can be described as capacity for success:

- Create a transformational digital vision.
- Activate employees through participation .
- Focusing on digital governance: which means the process of directing the company's digital activities towards the strategic vision .
- Building technology leadership: that is, empowering and integrating IT leaders with business functions. (Westerman,2014,P.133-135)

Digital leadership is open leadership, and the most common reason for failing to digitalize is because a person has learned over years and decades that knowledge is powerful and only, And that important decisions are made behind closed doors and thinking about separate functional silos and should have learned to control and control that knowledge, This is what digital leadership provides, and the program researcher will focus on web skills 2.0 (PowerPoint, blogs, teams, and wikis) To support the professional development of the kindergarten teacher in general and kindergarten managers in particular.

Hence, It is clear that the leader has an essential role in supporting and nurturing the development of others, setting clear educational goals such as: adherence to teaching times, monitoring students' progress, visiting classrooms regularly, and supporting faculty members by providing incentives for lifelong learning, Leadership has become an important field of research based on the research of:

(Matthews,2010) ,(Richardson,2018) ,(Douglas A,2020).

Study Problem

The sensation of the problem stems from the following:

1. Online content editors who write about the Middle East and Africa 85% of them are Western and American. There are only 15% editors who write about us and our country.
2. Videos are better than e-mail in digital learning: (The Radicati,2015), (Rowell,2017) So the researcher created her YouTube channel to explain the

program in audio and image (video), and also placed the software on an electronic application on the mobile.

3. Field observations monitored by the researcher during her work in kindergartens
 - Most leaders in education in general and kindergartens in particular are managers only and are unskilled in using modern technological means.
 - Accreditation of kindergarten curriculum activation on digital resources and web applications 2.0
 - The scarcity of studies on the digital leadership of kindergartens (Wadel,2022)

The study's problem can be confined to the following question:

1. What has been the impact of some Web 2.0 skills on supporting the digital leadership of Egyptian education managers?

The following sub-questions emerge from this key question:

- What is the Web 2.0 skills list that supports digital leadership of education managers?
 - What is the effectiveness of the proposed program in supporting the digital leadership of kindergarten managers?

Study Assumptions

1. There are no statistically significant discrepancies at the level (≥ 0.05) between the average applicators of the experimental group on the digital Leadership scale of kindergarten managers in light of the sucking vision.
2. There is no statistical difference of D at the level (0.05 between the average scores of the experimental group in tribal and remote applications on the note card of the Web Skills List 2.0 dimensions (PowerPoint, Blogs, Teams, Wiki) associated with the Web Skills Program 2.0 to support leadership.

Objective of the study

1. Design software based on some web applications.
2. Verification of the effectiveness of the Digital Leadership Support Program of Education and Education Managers.

The importance of the study

The importance was divided into theoretical and practical significance.

- **Theoretical significance:**
 1. We hope that the results of this study will benefit the leaders of the Ministry of Education and recognize the important role of digital leadership in the technological era.
 2. Help managers to complete their work and accept and deal with difficulties related to work pressures in a timely manner .
 3. We help teachers and school leaders manage digital leadership in the future.
- **Applied Importance:**
 1. This study provides evidence to leaders regarding digital Leadership methods and behaviors that stimulate and support professional development.

2. This study provides theoretical and practical knowledge to design a professional learning network for female teachers and managers in the kindergarten stage.
4. Our research provides useful information that can be used in the future to design professional development programs aimed at improving the quality of the preschool environment.

Research Limits

The research limits are divided into:

- **Spatial boundaries:**

The sample was selected from the directors of kindergartens in the Egyptian Ministry of Education.

- **Time limits**

The program was applied and the data collected and quantified for two and a half months equivalent to 6 weeks, two days a week.

- **Human boundaries and the bark sample**

5. The research sample consists of 30 directors, comprising the research community of kindergarten directors (first teacher, first teacher A, expert teacher, senior teacher).

Terminology of study

1. Digital Leadership:

The leader's ability to create a clear and meaningful vision for the digital process, and the ability to implement a strategy to achieve this **(Mario Franco,2020,4)**.

Leadership capabilities are the ways managers Leadership change, and digitally successful companies have built strong leadership capabilities in achievement and are able to Leadership conversion **(Zeike et, 2019,2628)**.

Procedural Definition of Digital Leadership

This research defines it as the level achieved by a manager on the 0.2 web skills list scale to support managers' digital leadership.

2. Support

Support is defined as "assisting the organization to perform its mission with a high degree of efficiency. **(Mohammed Abdulwahab, 2003, 121)**

"Support is defined as the skills acquired by an individual through knowledge, experience and other characteristics as a teacher" **(OECD, 2009.49) (1)**

3. Kindergarten Manager

(Issa Ali, 2009, 168) defines him as the supervising, organizing or planning leader of activities throughout the day at the educational institution, including the interaction between female teachers and each other and the holding of meetings and recreations with the local community, including the parents of the mother

The researcher identifies the director of the kindergarten as: The person who supervises the kindergarten of the West Tanta Education Department.

4. Web skills 0.2

(Michael, 2008) indicates that Whip 0.2 skills are "the second generation of online communities and services, through which interaction, participation and communication between different users can take place on the same page.

Procedurally, the researcher defines it as "the second generation of applications and electronic services, through which it allows participation, communication and communication between users on the same network.

Experimental Research and Design Curriculum:

The researcher used the quasi-experimental research approach. Relies on accurate observation to study problems, impose assumptions, and adjust research variables.

1. OECD :Organization for Economic Cooperation and Development

Theoretical framework of the study:

Digital leadership is a new concept that emerged in this era. ; where many of the complexities of rapidly changing technology, geographical and cultural diversity and the Internet, and precious leadership are concerned with both how and how much, they are qualitative leadership, in the sense that leaders, along with their skills associated with data study and analysis, draw conclusions and then make correct decisions. They also have a great deal of knowledge of functional behaviour and emotional intelligence, qualifying them to manage risks in work environments of a religious nature **(Thorsten Petry,2018,21)**.

Characteristics of digital leadership:

All managers - although different - need to adopt a leadership style in the digital age, addressing **(Shahyan Khan,2016,17-19)** six digital characteristics.

1. First Feature: Interdependence and Integration: We mean interdependence and integration of business, tools, communication and social interaction, which helps to share knowledge, practices and modeling, which will Leadership productivity, sustainability, quality and effectiveness in structured environments while unleashing creativity, innovation and signaling.

2. Second characteristic: Reducing the time gap.

Shorter time frames for decision-making, increased speed of information, real-time organizational management, increased forms of interaction, reduced time difference and abundance of information through smartphones, tablets and social media require a good analysis to understand information and make full use of M.

3. Characteristic 3: Increasing transparency and complexity: **(Sheninger, 2014)**, emphasizes that when discussing digital leadership in the educational sector, the growing complexity of technology, transformations and challenges in how to conduct education in the digital age.

4. The fourth characteristic: the removal of hierarchy and personal barriers. As organizations become more flexible, the concept of "reverse orientation programmes" offers what enables senior management and senior executives to learn from younger generations, by moving away from formal and professional barriers and shedding light on **(Hiekkanen, 2015, P.45)** Also highlights the occurrence of this feature through "Business Harmonization and Information Technology", arguing **(Westerman, 2014, P.216)** In that "time and attendance are artificial barriers that can be removed allowing staff to have a much greater say in how they work ".

5. Characteristic 5: Empowering Decision and Enhancing Integrity

Digitization enables faster decision-making processes than strategic decisions on the Board of Directors of the Foundation, and affects personal integrity, as mutual trust becomes an important factor when selecting Business Partners.

6. Characteristic 6: The Effect of Humanization.

Digitization reshapes the five main areas: customers, competition, data, innovation and value according to) For(**Rogers, 2016**), it also allows humans to easily interact, communicate and interconnect through virtual platforms and tools, in a more realistic and intuitive way, more "people are working alongside [robots], and as humans become more connected to computers, the future of interaction" will be "symbiotic", that is, mutually beneficial between man and machine.

The importance of digital leadership

(**Thorsten Petry,2018,214**) summarized the importance of digital leadership for the leaders themselves.

- Makes Leadership more decentralized.
- It helps leaders to use collective intelligence in the institution, creating conditions in which knowledge workers can bring their expertise and competencies and fulfil their specific tasks.
- Digital leadership is a prerequisite for greater engagement, self-regulation and self-management, where leaders need to be connected to the network, and they need to support connecting internal as well as external competencies (network leadership).
- It helps leaders in the digital age to Leadership openly, which means open communication, give and receive feedback openly, and accept criticism.

Components of career development

There is agreement that a wide range of activities can lead to the professional development of individuals. Think, tell stories, talk, train peers, engage in the required work, but there is a lack of research and understanding of how individuals' professional development occurs.

Table (1) Structure of Professional Development

Thought Development	Developing attitudes	Behaviour Development
<ul style="list-style-type: none"> ▪ Cognitive Change. ▪ Rational Change. ▪ Global Change. ▪ Analytical Change. 	<ul style="list-style-type: none"> ▪ Change cognition. ▪ Evaluation Change. ▪ Catalytic Change. 	<ul style="list-style-type: none"> ▪ Procedural Change. ▪ Fruitful Change. ▪ Competitive Change.

Yodogawa,2022,391

Professional development environments

The improvement of kindergarten is linked to the concepts of effectiveness and efficiency, intended to assess the ability of kindergarten to "improve sustainably", and aims to change learning conditions with the ultimate goal of achieving

educational goals more effectively. Chapman, 2012.29) and a clear vision for supporting professional development (through flexible schedules and encouraging experience) (Opfer, 2010, 376-407) The role of the educational leader is to provide "leadership for learning" at the kindergarten level Through the following principles:

- Focus on learning for all students and staff.
- Creating an environment for learning - an organizational culture that promotes learning and thinking for all.
- Educational dialogue. All stakeholders link leadership and learning.

The following controversy illustrates restrictive environments for professional development and environments that encourage professional development.

Table (2) Professional development environments

Restricted environment for professional development	An encouraging environment for professional development
<ul style="list-style-type: none"> ▪ work done 	<ul style="list-style-type: none"> ▪ Interactive Cooperation
<ul style="list-style-type: none"> ▪ hamper each other's learning from selling 	<ul style="list-style-type: none"> ▪ Mutually support colleagues to interact
<ul style="list-style-type: none"> ▪ There is no focus on teacher learning, except in response to crises or initiatives from top to bottom 	<ul style="list-style-type: none"> ▪ Clear Focus on Teacher Learning as a Key Element in the Practices of the
<ul style="list-style-type: none"> ▪ Opportunities associated with compliance with school/home agendas 	<ul style="list-style-type: none"> ▪ Supporting development opportunities outside the school/home priorities

Gerwitz et al. 2009, p. 165).(Rafael Mitchell,2016,398) ,(

The researcher concludes from the above that:: the kindergarten community must be an environment that promotes the use of individuals as a means of increasing achievement for all, strengthening learning organizations, where all stakeholders are educated and leaders, and teaching leaders and managers to promote environments where individual and collective learning is optimal through collaboration and shared leadership.

Search Tools:

- Preliminary Data Form (Researcher's Preparation).
- Skill Performance Measure for Some Web Skills (Researcher's Setup).
- Digital Leadership scale.

Search Procedures:

- Access to pedagogical research literature related to the subject of research and use it to prepare the theoretical framework for research, research tools, as well as to link the current research results to the results of previous studies.
- Access to international professional standards for educational leaders
- Preparing a list of the Whistleblower's skills 0.2
- Content of the proposed programme:
- The program contains four themes:

1. (PowerPoint Program). 2. (blogger). 3. (Microsoft Teams). 3. (Wiki).

Tribal application of research tools:

The researcher applied research tools in advance with the experimental group from 11/8/2022 to 18/8/2022.

Application of the proposed programme:

The researcher applied the content of the program with the pilot group from 20/8/2022 to 16/9/2022.

Dimensional application of research tools:

The researcher applied the content of the program with the pilot group from (17/9/2022) to (22/9/2022).

Search results and interpretation:

1. First: Answer to sub-search questions:

The researcher answered sub-search questions, with the following:

- A. Answer to the first sub-question

To answer the first sub-question, which reads: "What is the list of skills for designing and producing some Web 2.0 applications associated with digital leadership of kindergarten managers in light of Egypt's Vision 2030 The researcher reviewed studies and references on the design skills of some web apps. which can be developed by kindergarten managers, and the researcher came up with the list of skills associated with the design skills of some web applications 0.2 And then she showed that preliminary list to a group of gentlemen in the field of specialization, That list was amended in the light of their views and proposals, and the skills list was finalized (m).

2. **Second: Presentation of the pilot group's results on the digital Leadership scale**

To verify the correctness of the first of the research hypotheses, which reads: "There are no statistically significant differences at the level (≥ 0.05) between the two average degrees of the pilot group on the digital Leadership scale of kindergarten managers in light of Egypt's Vision 2030, The test (t-test) and the use of Paired Samples Statistics (Paired Samples Statistics) to calculate the average scores of one group (before and after) to compare the average scores of kindergarten managers on the digital Leadership scale in the tribal and post measurement, calculating the averages and standard deviations of the group managers' scores on the scale (Before - after) on the following scale and table summarizes these results:

Table (3) (v) and its statistical indication of the difference between the average total grades of kindergarten managers (experimental group) in the tribal and remote application on the Leadershipscale Number

Groups		Number (n)	Average (m)	Standard deviation	The value of "T "	Degree of Freedom Value of pampering Connectedness	Value of pampering
Total. Digital Leadership Before Sellers		30	28.7	2.37	54.75	29	0.01
		30	49.7	1.43			

It is clear from the previous table that the value of "T" is a function of the degree of freedom of 29 as: $(t_{54,75}) = 29, P < 0.01$, indicating statistically significant differences between the average grades of kindergarten managers In both tribal and remote measurements in the digital leadership scale in favor of dimensional measurement, zero imposition is refused and alternative imposition is accepted, which states: "There is statistically a difference of D at the level of (≥ 0.05) Between the average scores of the experimental group in the tribal and remote application on the digital leadership scale in favor of the dimensional measurement "That is, the experimental group showed a significant development in digital leadership in dimensional measurement, The following figure illustrates these differences.

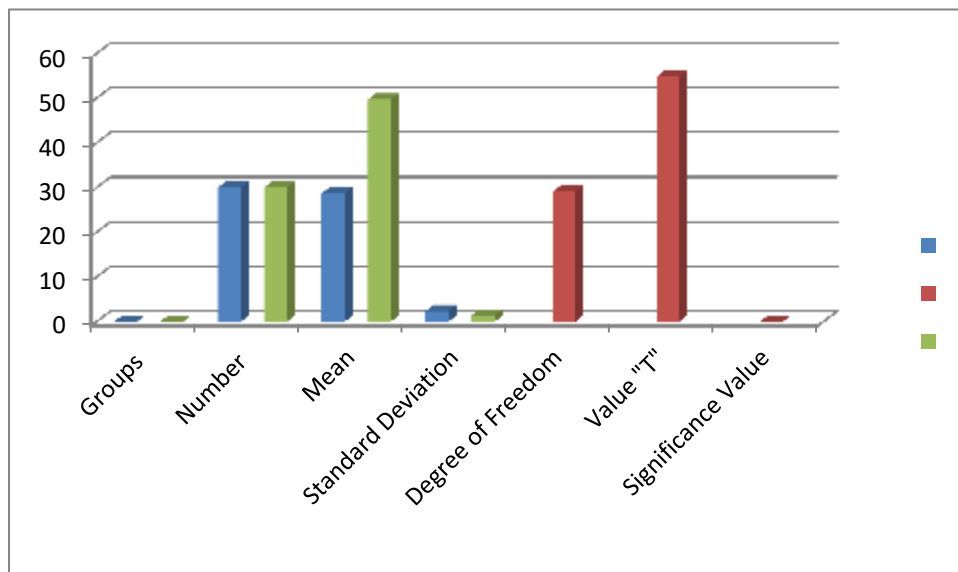


Figure (1) Kindergarten Managers' Score Averages for the Experimental Group on Tribal and Remote Measurement in the Digital leadership Scale in Educational Management.

Third: Presentation of results for the pilot group's performance on the web skills scale 0.2:

The researcher analyzed and compared the results of the experimental group on the web skills scale 0.2 before and after the application of the program, and the averages and standard deviations were calculated in the tribal and remote application of the experimental group, This is to test the validity of the research

hypothesis, which states: "There is no statistically significant difference at the level ($\alpha \leq 0.05$) between the mean scores of the experimental group in the pre- and post-application on the 0.2 Web skills scale related to digital leadership.", The researcher used the SPSS.V.28 "statistical package program as shown in the table below.

Table (4). The value of (T) and its statistical significance for the difference between the mean scores of the kindergarten principals of the experimental group in the pre and post application on the dimensions of the web skills scale 0.2 before and after the application of the program..

Dimensions of Observation	Connectedness	Number	Average	Standard Deviation	Degree of Freedom	value "T"	significance
powerpoint	Before applying the program	30	11.63	1.84	29	12.47	< 0.01
	After application of the program	30	15.67	1.56			
blogging	Before applying the program	30	5.50	0.57	29	10.27	< 0.01
	After application of the program	30	6.83	0.79			
Teams	Before applying the program	30	3.73	1.14	29	23.54	< 0.01
	After application of the program	30	7.47	1.01			
program Wiki	Before applying the program	30	3.27	0.83	29	36.03	< 0.01
	After application of the program	30	7.40	0.67			
Note card total	Before applying the program	30	24.20	3.48	29	32.57	< 0.01
	After application of the program	30	37.37	3.62			

Note from the previous table that:

- There is a discrepancy in the practice of the respondents' observation card phrases in the skills dimension of the "PowerPoint" presentations program after applying the program, as the average was recorded in the dimension measurement (15.67 out of 19, which is the total score for this dimension), and this average indicates the response with (led skill).
- There is a discrepancy in the sample members' practice of the observation card phrases in the blogger application skills dimension after applying the program, as the average was recorded in the telemetry (6.83 out of 9, which is the total score for this dimension), and this average indicates the response with (skill led).

- There is a discrepancy in the sample members’ practice of the observation card phrases in the skills dimension of the Teams program after applying the program, as the average was recorded in the post-measurement (7.47 out of 9, which is the total score for this dimension), and this average indicates the response with (led skill).
- There is a discrepancy in the sample’s practice of the observation card phrases in the skills dimension of the Wiki application after applying the program, as the average was recorded in the post-measurement (7.47 out of 8, which is the total score for this dimension), and this average indicates the response with (led skill). The following figure shows these differences:

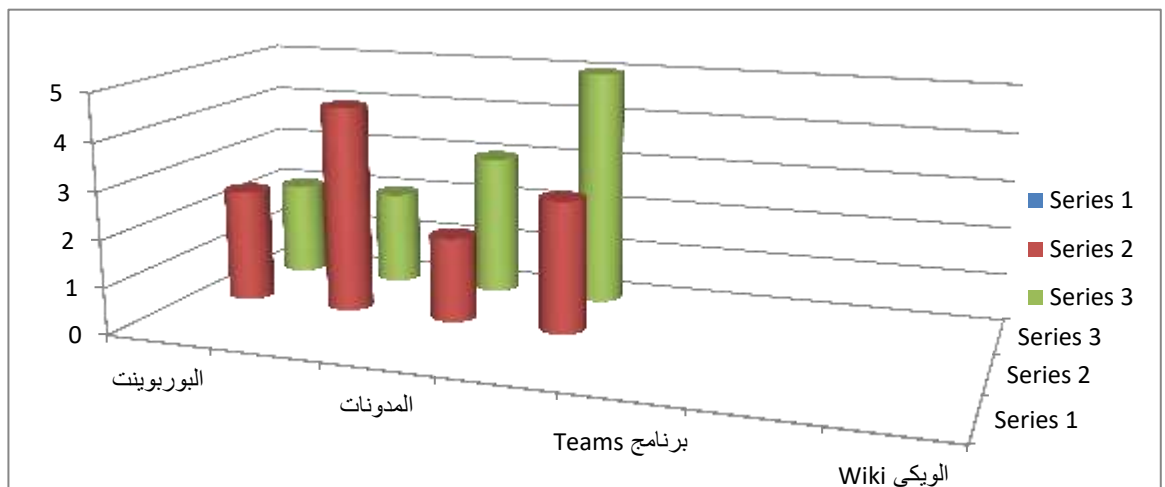


Figure (2) average scores of kindergarten principals for the experimental group on the pre and post measurement in the dimensions of the web skills scale 0.2

Research recommendations:

1. Principals should not ignore the integration of technology into teaching and learning from kindergarten through secondary education.
2. Effective communication and collaboration based on digital resources improve the effectiveness of educational reform leadership and the promotion of learning.
3. The need for educational leaders and decision makers to continue reviewing training programs to deal with changes in order to keep teachers and principals informed of what is new.
4. Particular focus should be placed on ICT applications and tools that govern the educational process.

Research proposals:

1. A case study of the technical and digital kindergarten teacher's perceptions .
2. A study on the professional development of a kindergarten teacher through digital stories .
3. Analyzing digital leadership in kindergarten management and accessibility to learning through animated games for the sustainability of children's education.

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