

# Evaluating the Level of Electronic Supervision Practices in Arab Schools in Israel from the Point of View of School Principals and Teachers

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## Abstract

This study aimed at evaluating the level of electronic supervision practices, in Arab schools in Israel, from the point of view of school principals and teachers. To achieve the study objective; the researcher used a questionnaire divided into two dimensions. It applied to a random sample consisted of (114) principals and teachers, during the first academic semester 2020/2021. The study findings showed that the degree of the requirements for applying electronic supervision in Arab schools in Israel, from the viewpoint of school principals and teachers, came in a medium degree. Moreover, the level of electronic supervisory practices, in Arab schools in Israel, from the viewpoint of school principals and teachers, came in a medium degree.

**Key words:** electronic supervision practices, Arab schools, Israel, school principals, teachers.

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## 1.1. Introduction

Education technology is one of the most important foundations on which countries and governments rely in building their educational system in the age of information and electronics. With the emergence of personal computers and their operational programs in addition to information and communication technology and its continuous and amazing development during the past few years, electronic schools and e-learning technologies have emerged and spread. Quickly, it became clear that some expected and even confirmed that e-schools would be the schools of the future (Amer, 2018).

Information and communications technology creates new possibilities for supervision, but its introduction challenges the teachers' knowledge, skills, and attitudes as well as the operational culture in education. The fast and continuing development of technology puts pressure on staff competence, budgeting and purchasing of educational institutions, as well as on re-planning the curricula and implementation methods. (Lemke, Coughlin & Reifsneider, 2009). The twenty-first century witnessed tremendous and successive developments in information and communication technology that led to the spread of multiple means of communication. This scientific technological progress, the explosion of knowledge and the information revolution led to the need for educational institutions to make tremendous efforts to establish an educational system based on modern technological technologies and to accelerate the introduction of information and communication technology in its educational systems. And educational supervision is not isolated from these developments, as it represents an essential aspect of the educational system (Abu Ghazaleh, 2020).

Supervision is considered one of the processes that improve the performance of teachers. Despite attempts to develop educational supervision in general, there are still traditional practices among supervisors. This is reflected in the difference in the prevailing relationships, the type of methods used in the field of the supervisory process, the lack of appeal to the foundations or models that direct and define supervisory work, and failing to respond to the rapid technological and informational developments (Amin, 2007). The educational supervision process is plagued by various obstacles. These obstacles related to not keeping pace with modern technological methods in the supervisory process. This confirms the need to invest the characteristics of the knowledge economy to upgrade the supervisory system, as the knowledge economy aims to invest, transfer, and invest technologies, skills, experiences and knowledge, to achieve a competitive advantage among the educational institutions (Al-Salem, 2014).

Electronic educational supervision is a concept that carries with it many administrative, technical and technical tasks. Since educational supervisors often play the role of teacher teachers, it is important to see their role as the role of facilitator of the learning process, which requires supervisors to preserve with a stock of supervisory methods and practices to choose the appropriate ones to meet the different needs of teachers. Electronic educational supervision is a process concerned with developing teachers professionally based on the use of modern technology, and emphasizing opportunities for continuous learning; the values of cooperation, teamwork, and respect for all participants in the educational process are entrenched. Therefore, the electronic supervisory process is gaining increasing importance to keep pace with the new developments in the educational arena (Abdel Hadi, 2002).

The interest in electronic supervision in school education increased as a result of the tremendous development in all areas of communication and information technology. These technical developments have created a wide

scope for improving the quality of school education in many countries of the world, after education and supervision remained for a long time confined within the walls of the classroom (Al-Otaibi, 2017). Technology is the most important basis in electronic supervision systems because it is regarded an integrated supervisory system that aims to provide teachers with the knowledge and skills necessary for their cognitive development. Electronic supervision is not a substitute for face supervision, but rather is a complement to it, and one of the effective solutions to solve its problems (Abdul Hamid, 2011).

For the success of electronic supervision must be provided the necessary financial resources to applying electronic educational supervision, and provide an administrative entity responsible for following up the applying electronic educational supervision and taking the necessary measures for its success, and holding training courses in the electronic educational supervision of educational supervisors and teachers (Hazimeh, 2020). Holding training workshops for educational supervisors on how to employ computer technologies in educational supervision and benefit from the services provided by the Internet and free sites such as Google Drive and others (Al- Eadammat, 2020). E-supervision has the potential to improve the quality of the student teaching experience. E-supervision is another way to add additional observational visits to the student teaching experience, as it provides a supplementary avenue for the supervisor to enter the classroom setting in a timely manner (Paulsen & Schmidt, 2017). Furthermore, issuing legislations and laws that enacting the application of electronic educational supervision and making its mandatory application on both the educational supervisor and the teacher. Spreading the culture of the electronic educational supervision model, through the Ministry of Education portal, educational forums, educational publications, and educational information. In addition to Issue a practical guide for the objectives of the electronic supervision model and its application mechanisms. Holding training courses on how to apply the methods of electronic educational supervision (Amry, 2020). Providing the necessary budget to support the electronic educational supervision (Abdel-Rahman, 2019). Create websites for electronic supervision, create an email account for all employees of the Ministry of Education, provide the necessary infrastructure for electronic supervision, allocate continuous technical support for electronic supervision, and encourage and support supervisors to activate the use of electronic supervision (Al-Qahtani, 2019). Provide the necessary financial support for the electronic surveillance infrastructure (Abu-Ghazaleh, 2019). Urging and encouraging educational supervisors to use electronic supervision and identify obstacles to electronic supervision and work to overcome them (Al-Sayegh, 2018)

The use of the Internet has an important role in activating electronic supervision, as internet tools are varied, and the most important of which is e-mail, which is one of the most important services provided by the internet, as it allows the exchange of messages, articles, texts and files, with another person or people who have e-mail on the network. Internet also allows conversation that can be used in the supervisory process for communication between supervisors and teachers. In addition, it is a method to save time and effort of supervisors and teachers, as it allows quick access to seminars and lectures that are presented by other educational persons, moreover, it is a way to hold meetings between supervisors and teachers. Internet also allows access to educational sites. In addition, it is possible to create websites on the Internet specialized in electronic educational supervision, and this feature can be used to enhance supervisory processes such as publishing educational or training programs on the site for all workers, and developing directives or bulletins and regulations on the site, to be constantly renewed. The Internet also allows holding video or interactive video conferences, and this service used in educational supervision through the implementation of group projects with teachers at the same time, in addition to organizing discussions with experts and specialists in their scientific fields, which helps in the development of teachers' information in these areas. Internet also provides mailing lists, which can be used to improve the supervisory process by creating a list of supervisors and mass sending educational materials. Therefore, electronic educational supervision helps to provide the opportunity for teachers to train continuously on everything new without affecting their work in schools, and it strengthens the training process (Daoud, 2018). In order to activate the electronic supervision, appropriate and updated computers must be provided for the educational supervisors' categories, and courses and forums should be organized for the educational supervisors, to deepen the culture of electronic supervisory follow-up, and to develop its own guide. The supervisors should also be taken care of, training them, raising their competencies, developing their performance, and providing them with favorable nutrition about their plans from the beginning of the school year. In addition to develop the electronic portal windows related to electronic educational supervision, and including some computerized files for records of supervisors and first teachers (Al-Kindi, 2018). Moreover, there is a need to expand the integration of the technology in the educational process at all stages and in all aspects; administrative and technical. In addition, it is necessary to encourage the educational supervisors and teachers to participate in the computer training programs by providing material and moral incentives to the participants. Moreover, there is a need to train teachers on the methods to formulate behavioral goals in a manner that can be successfully completed under the supervision of the e learning.

The appropriate and successful integration of technologies into learning environment over the previous ten years period has left great gap between the amount of technology available and the support for teachers. As we know, the capacitor supervision very important exactly in primitive interval for the beginning teachers and must

be in convergent periods. In other hand, the forerunner teachers also need to integrating technologies in their occupational framework to decrease gab between teachers and the using of technologies. From this point of view, we consider a more effective way to establish a convenient way of communication between teachers and their supervisors by building an electronic-supervision system (E-Supervision). The E-Supervision process aimed to creating an educational collaboration environment between supervisors and teachers that include acquiring more skills, experiences, attitudes, and teaching strategies and others. In the other side, it aims to give the supervisors reaches, continuous and open support to their teachers which will relieve their task stress and less daily time through communicating with teachers through E-Supervision system (Mardah, 2009). E-Supervision system, in its simplifying version, is a web-based system using multi-agents technologies with client/server approach to access and receive information from databases to help supervisors and supervisees in their activities. It will facilitate with many issues such as reduce visiting to schools, increase time to do administrative works, easy access all information about the teachers & their working. In addition, it will increase the communications with the teachers on any issue (AlBar, 2012). In order to enhance the level of electronic supervisory practices, the level of teacher training must be investigated on the effective use of electronic tools, software and educational platforms. In addition to providing infrastructure and technical equipment such as computers, laboratories, and Internet networks, in addition to providing computers and the various programs associated with them that are often associated with the use of the Internet. The use of the Internet has made a huge quantum leap in the field of electronic supervision, easy access to educational resources, and saved time and effort (Al-Shammari, 2019).

The researcher believes that the electronic educational supervision is a comprehensive humanitarian, leading, consultative and artistic process, aimed at evaluating and developing educational process based on the use of modern technologies. Electronic educational supervision aims to improve teaching and learning through sponsoring, directing and activating the continuous growth of each student, teacher and supervisor, and any other person who has an impact on improving the process Educational, whether technical or administrative. According to the importance of electronic supervision and the importance of verifying the availability of necessary facilities for the application of electronic supervision, the current research came to evaluate the level of electronic supervisory practices in Arab schools in Israel from the point of view of school principals and teachers.

### **1.2. Study problem**

Based on the advantages offered by electronic supervision such as convenience and flexibility in scheduling study times and location, access to knowledge, speed and flexibility of program and curriculum development processes, immediate access to the latest modifications to them, low and low material costs, quality, richness and diversity of educational materials in all their forms, and developing skills Teachers 'self-learning. Moreover, in light of the results of some previous studies that showed a weakness in the electronic supervision practices in many societies, such as a study of Abu Ghazaleh (2020), Hazimeh (2020), Al- Eadammat (2020), Abd al-Rahman (2019), Abu Ghazaleh (2019), Al-Qahtani study (2019), Al-Sayegh's (2018), and Abdulaziz's study (2017). According, the possibility of applying this type of supervision has come into question, and accordingly the current study came to assess the level of electronic supervision practices in Arab schools in Israel from the point of view of school principals and teachers. More specifically, the study problem was represented by the following main question: what is the level of electronic supervision practices in Arab schools in Israel from the point of view of school principals and teachers? The following two questions emerged from this question:

#### **Sub-questions:**

The first question: What are the requirements for applying electronic supervision in Arab schools in Israel from the viewpoint of school principals and teachers?

The second question: What is the level of electronic supervisory practices in Arab schools in Israel from the viewpoint of school principals and teachers?

### **1.3 Importance of the study**

The importance of this study emerged from the urgent need to identify the level of electronic supervision practices in Arab schools in Israel from the point of view of school principals and teachers. Because of the rapid technical, social and educational changes in Israel, so the importance of this study comes from its results, and the impact of these results on those in charge of decision maker in Israel, and the importance of this study can be shown as follow:

#### **Theoretical importance:**

- Enrich the theoretical aspect regarded the level of electronic supervision practices in Arab schools in Israel, as the researcher hopes that the study results contribute in enriching Israel library in this field.
- This study is expected to open up new doors in the field of electronic supervision practices in Arab schools in Israel, to conduct new studies to promote or deny the findings of this study.

### **Applied practical aspect:**

- It hoped to benefit from the findings and recommendations of this study in providing a feedback to educational decision makers about the level of electronic supervision practices in Arab schools in Israel from the point of view of school principals and teachers to educational decision maker.
- It hoped to benefit from the findings and recommendations of this study the researchers and those interested electronic supervision practices in schools.
- It hoped that this study finding help educational decision-makers in Israel in identifying the degree of the level of electronic supervision practices in Arab schools in Israel from the point of view of school principals and teachers, to help them in making appropriate decisions to improve the education.

### **1.4 Terminology**

The study adopting identifying the following terms:

**Electronic supervisory practices:** It is: "a supervisory style, that presents the work and tasks of the educational supervisor through multimedia on the computer and its networks, to teachers and schools in a way that allows them to interact actively with educational supervisors or with their peers, whether in a simultaneous or asynchronous manner, as well as the possibility of managing these operations through those media" (Al-Shamrani 2010, p. 11).

### **1.5 Study limitations**

The results of this study are determined by the nature of the sample and the tool of the study, as follows:

- The sample: it is limited to in Arab schools principals and teachers.
- The temporal boundary: it is limited to the academic year 2020- 2021.
- Objective limit: evaluating the level of electronic supervision practices in Arab schools in Israel from the point of view of school principals and teachers.

### **1.6 Variables**

The study includes two dependent variables, namely:

- The degree of the requirements for applying electronic supervision in Arab schools in Israel from the viewpoint of school principals and teachers.
- The level of electronic supervisory practices in Arab schools in Israel from the viewpoint of school principals and teachers.

## **2. Previous studies**

The current study adopted the presentation of a set of previous studies that were addressed from the most recent to the oldest, as follows:

Abu Ghazaleh (2020) conducted a study aimed at identifying the degree of the possibility of applying electronic supervision, the obstacles facing this application, and the solutions as perceived by supervisors, Principals, and teachers in Jerash Governorate. It aims to identify if there are statistically significant differences in the degree of the possibility of applying electronic supervision attributed to the different variables (gender, numbers of years of experience and scientific qualification). the researcher has used the descriptive approach ,by using the questionnaire as a tool for her study after confirmation of its validity and reliability the tool has been applied to (50) principals and (700)teachers randomly. One of the most important findings of the study was that the total score of the tool came in the "medium" degree, where the "rules and laws of electronic supervision "was in the first place among the averages. While the "modern technology and the financial abilities" came in the latest place among the averages, the absence of statistically significant differences is attributed to the variables collectively.

The Hazimeh (2020) study aimed to investigating the availability of the requirements of applying electronic educational supervision in Jordan - Northern Governorates from supervisors point of view the study sample consisted of (233) supervisors. The questionnaire consisted of (20) items the study find that the availability of the requirements of applying electronic educational supervision in Jordan - Northern Governorates from supervisors point of view, was medium. In addition, there was no statistical significant difference in the availability of the requirements of applying electronic educational supervision attributed to gender, academic qualification, and the years of supervision experience.

The study of Al- Eadammat (2020) aimed to identify the degree of exercise of educational supervisors in the Directorate of the first Zarqa education, for electronic supervision, from their point of view. It aimed to identify the impact of gender, educational qualification, area of specialization, and experience. The study used the descriptive survey method, and the tool was a questionnaire. The results of the study showed that the degree of educational supervisors in Zarqa First Educational Directorate for the concept of electronic supervision of the tool as a whole; obtained an average of (3.55 out of 5) with a grade of (medium). The level of the dimensions came in descending orders as follow: the reality of the practice of electronic supervision got the highest average of (3.95),

with a rating (high). followed by, the dimension of the requirements of electronic supervision with an average (3.61), followed by, the importance of electronic supervision with an average (3.50), followed by, the dimension of obstacles to the use of electronic supervision with an average (3.20). The results showed that there are statistically significant differences attributed to the effect of gender in the field of the practice of electronic supervision and in favor of males, and no statistically significant differences attributed to the other variables.

The Abu Ghazaleh study (2020) aimed to identify the degree of possibility of applying electronic supervision from the point of view of school principals and teachers in Jerash governorate, and to identify the presence of statistically significant differences in the degree of applicability of electronic supervision attributed to different variables (gender, number of years of service, and academic qualification). The researcher uses the descriptive and analytical approach, using the questionnaire as a tool to study it after making sure of its validity and reliability. The tool was applied to (50) managers and directors, and (700) teachers, in a random way. The findings showed that the overall degree of the tool was in medium degree. The dimension of laws and legislation for electronic supervision ranked first among the averages, while the dimension of modern technological and material capabilities came last among the averages, as well as the absence of statistically significant differences attributed to the variable (gender, years' Service and educational qualification). The study reached a set of recommendations, the most important of which are: Providing the necessary financial support for the infrastructure for electronic supervision.

The study of Omari (2020) aimed to present a proposed vision for the application of the integrated educational supervision model in public schools in Saudi Arabia, based on the need to develop educational supervision in Saudi Arabia, as the cornerstone of the process of evaluating and evaluating the quality of teacher and school. The Integrated educational supervision model is one of the recent attitudes in the field of educational supervision. That contributes greatly to solving educational and educational problems, especially in times of crisis and disaster, and is known as this type of supervision that mixes supervision with supervision direct by classroom visits, dialogues and meetings (traditional supervision) with indirect supervision by modern communication mechanisms using computer networks and multimedia (electronic supervision). One of the most important mechanisms for implementing the proposed vision is: to pass legislation and laws to enact the application of integrated educational supervision. And make its compulsory application to both the educational supervisor and the teacher, and to spread the culture of the Integrated educational supervision model through the portal of the Ministry of Education, educational forums, educational issues, and the media Educational. In addition to, holding training and introductory courses in the application of integrated educational supervision methods.

The study of Abd al-Rahman (2019) aimed to identify the degree of readiness of the Jordanian Ministry of Education to apply electronic educational supervision, from the point of view of educational supervisors. It aimed to identify the existence of statistically significant differences in the degree of readiness of the Jordanian Ministry of Education to apply electronic educational supervision attributed to the different variables (gender, number Years of experience and preservation.) The researcher used the descriptive and analytical method, using the questionnaire as a tool to collect data after ensuring its validity and stability, and it applied to (225) supervisors in a random way. One of the most important results of the study was that the overall score of the tool came with a "medium" score, where the "field of human needs" came first among the averages, while the "financial requirements field" came last among the averages, as well as there were no statistically significant differences attributed to the combined variables.

Al-Qahtani study (2019) aimed to identify the reality of the use of electronic supervision in secondary schools from the point of female teachers view in Riyadh. The study using the descriptive methodology, and create a questionnaire consisting of (43) paragraphs distributed on two axes, which was arbitrated and calculated validity before distributed to randomly selected members (380) female teachers in Riyadh. The results of the study: the use of electronic supervision in secondary schools in Riyadh from the point of female teachers view came to a high degree, as well as the point of female teachers view towards the obstacles to the use of electronic supervision in secondary schools in Riyadh came to a high degree. There are differences between members to the use of electronic supervision in secondary schools in Riyadh from the point of female teachers view at the level of (0.002) attributed to the variable (specialization), and at the level of (0.00) attributed to the variable (education office). There are no differences between members on the obstacles of using electronic supervision in secondary schools in Riyadh from the point of female teachers view attributed to the variable (specialization), but there are differences at the level of (0.00) attributed to the variable (education office).

Al-Sayegh's (2018) study aimed to identify the reality of the use of educational supervisors in kindergartens for electronic supervision, and its importance in facilitating some of the functions of educational supervisors in kindergartens, in addition to identifying the obstacles facing educational supervisors in kindergartens in the use of electronic supervision in the supervisory process. The researcher followed the descriptive approach, It consisted of (73) paragraphs revolving around three main axes, and the study population may be (495) clause, (45) educational supervisor in the field of kindergartens, including (12) educational supervisor in the city of Mecca, and (33). While the number of teachers (450) teachers in kindergarten, including (168) teachers in the city of

Mecca, and (282) teacher in the city of Jeddah. The study showed that the most important obstacle is: the use of electronic supervision in kindergartens that ranked first with an average of (4.15) high. Followed by, the importance of using electronic supervision in kindergartens. Followed by, the extent of the use of electronic supervision in kindergartens at an average of (4.02). Followed by, the identification of eighteen obstacles to the use of electronic supervision in kindergartens and all of them to a high degree. The study showed that there were no statistically significant differences between the responses averages despite the difference in the city.

The study of Al-Kindi (2018) aimed to identify the difficulties of electronic supervisory and methods to develop them from the viewpoint of the educational supervisors. The study sample consisted of (122) educational male supervisors and (43) educational female supervisors, and the researcher used the descriptive approach, and the tool was applied to the sample of educational supervisors. The study found that there were large and medium difficulties regarding electronic supervisory, and the most of which were technical difficulties that came in a high degree. In addition, the highest expression in which was the weakness of the Internet service by the service provider, followed by the administrative difficulties, and the highest phrase was weak coordination between the supervisory authorities that supervise electronic. Moreover, there are statistically significant differences between males and females regarding the difficulties of electronic supervisory follow-up in favor of females.

Abdulaziz's study (2017) aimed to investigate the obstacles of the implementation of the e-educational supervision in the preparatory stage in Sohag governorate from the point of view of the educational supervisors. It explained the most important foundations on which the supervision of the e-learning were put and the obstacles of its implementation. The research used the descriptive approach. The research group consisted of 305 supervisors in the preparatory schools of Sohag governorate. The research tool was in a questionnaire and was applied on the research group. The results found that there are obstacles preventing the application of electronic supervision. The results showed that there are no statistically significant differences with respect to the number of years of the experience in the total and the absence of apparent differences between the average responses of the educational supervisors in each dimension of the questionnaire attributed to the variable number of years of the experience.

Paulsen, H. & Schmidt, A. (2017) sought to determine Iowa State University student teachers' perceptions of a hybridized supervision approach which included an electronic supervision component. Student teachers participated in one of two focus group sessions held during the final on-campus student teacher professional development session. A researcher not involved with the supervision or grading of the student teachers facilitated the interviews. Three major themes emerged: benefits to student teachers, improving the e-supervision process, and Benefits to the Teacher Education Program. The population for this case study consisted of a purposive, convenience sample of twenty-four agricultural education student teachers at Iowa State University who participated in a 14-week student teaching experience during the fall of 2015 or the spring of 2016. The study concluded that e-supervision has the potential to improve the quality of the student teaching experience. E-supervision can help solve problems associated with programs that utilize student teacher placements far from campus.

Al-Daihani, Shame & Aljadi (2016) study aimed to identify the role of electronic supervision in achieving the professional development of teachers from the opinions of heads departments in schools. The study sample consisted of (1200) Heads Department of the various educational districts in the State of Kuwait. The researchers adopted a descriptive approach and designed a questionnaire to collect data from respondents. The results indicated a high level of use of the educational supervisors for electronic applications in the areas of (managing, training, teaching, research, and communication) and supervisory processes. The obstacle to use of electronic applications in the supervisory operations was found on high level. The role of electronic supervision in achieving the professional development of teachers found on high level too. The results also showed that there were statistically significant differences about the role of electric supervision in achieving professional development for teachers in qualification level favor for bachelor degree, and difference between educational districts in favor for Hawalli distract, Ahmadi distract and Mubarak Alkabeir distract.

The aim of Sari (2015) was to determine nursing teachers' and students' attitudes to and experiences of using an electronic assessment and feedback tool in supervision of clinical training. The tool was called eTaitava, and it was developed in Finland. During the pilot project, the software was used by 12 nursing teachers and 430 nursing students. Nine of the teachers participated in the interviews and survey, and 112 students responded to the survey. The data were mainly analysed with qualitative methods. In the eTaitava web-based user interface, the teacher constructs questions to map the students' learning process, and sets them to be sent on a daily basis. According to the findings, four-fifths of the students responded to the questions almost daily. They thought the software was easy to use and answering the questions took about 5 minutes a day. Based on the students' and teachers' experiences, the use of the electronic assessment and feedback tool supported supervision of clinical training. It supported the students' target-oriented learning, supervised the students' daily work, and made it visible for the teachers. Responding to the software questions inspired the students' cognitive learning, and based on the responses, the teachers noticed which students needed more support and could consequently allocate them more supervision time. Responding also supported the students' continuous self-evaluation, and considering the responses structured

the students' and teachers' final assessment discussion. By means of the electronic assessment and feedback tool, it is possible to promote learning during clinical training by challenging students to reflect on their learning experiences. Students' professional development process can be supported through pedagogically planned conceptual supervision which is integrated into experiential learning during clinical training. The findings of the pilot study were encouraging, indicating that the method is worth further development and potentially useful in supervision in all fields of education.

The aim of Cano, Garcia & Luisa (2013) was to evaluate and analyze strategies, proposals, and ICT tools to promote a paradigm shift in educational supervision that enhances the schools of this century involved not only in teaching-face learning, but e-learning and blended learning. Traditional models of educational supervision do not guarantee adequate supervision of the teaching models based on Web 2.0 as well as the digital learning environments supporting classical lectures. The study has been approached from a quantitative perspective, in which we examined the practices and perceptions of 278 local supervisors in three different regions of Spain when supervising the 2.0 teaching model promoted by the Ministry of Education in 5th primary grade through a model "one laptop per student." The analysis in this context led us to postulate that a supervision model that complements the techniques and strategies of traditional supervision and incorporates new ways of addressing the educational processes based on Web 2.0 is needed. This model may be called "virtual supervision" and it must be oriented towards an intervention to analyze, improve, and substantially transform schools and the teaching-learning processes.

### **3. Method and procedures**

#### **3.1. Methodology**

This study aimed at evaluating the level of electronic supervision practices in Arab schools in Israel from the point of view of school principals and teachers, so the study used the descriptive survey method, which regarded suitable for this study.

The study population consisted of all school principals and teachers who work in Arab area in Israel, and a sample consisted of (114) employees were chosen in arbitrary method.

#### **3.2. The Study tool**

To evaluate the level of electronic supervision practices in Arab schools in Israel from the point of view of school principals and teachers, a questionnaire was developed by the researcher. The questionnaire was distributed using the WhatsApp application.

#### **3.3. Validity of the study tool**

To ascertain the validity of the study tool, content validity was used by viewing the questionnaire to (15) arbitrators of the faculty members who specialize in educational administration. That to take their opinions on the content of the tool, the adequacy of paragraphs, the need to modify or delete any paragraph, and any comment they think it is necessary. In the light of the observations of the arbitrators, some items were modified, but no item was deleted. The researcher found that the paragraphs were correlated to their dimensions, as the agreement degree between the arbitrators reached (90%), and this percentage is regarded suitable for the purposes of this study.

#### **3.4. Reliability of the study tool**

Research tool reliability was assured reliability by using the (Test- retest), and by applying it on (17) school principals and teachers from outside the research sample, and Pearson correlation coefficient was calculated, and the value of reliability coefficient was (0.89), and this is an acceptable value for the purposes of the Research.

The level of electronic supervision practices in Arab schools in Israel from the point of view of school principals and teachers was determined by dividing the degrees to three levels (high, medium, low) based on the following equation:

The highest value – the lowest value / number of levels =  $(5-1) / 3 = 4/3 = 1.33$ .

Thus, it was adopted the following Criterion to determine the level of electronic supervision practices in Arab schools in Israel from the point of view of school principals and teachers:

- Low degree: represent grades between (1- 2.33).

Medium degree: represent grades between (2.34- 3.67).

.( High degree of exercise: represent grades between (3.68- 5.00).

#### **3.5. Statistical treatment**

To answer the questions of the study the appropriate statistical methods were used as follow:

- To answer the first, second question, the averages and standard deviations were used.

#### 4. Study results and discussion

Findings of the study and its discussion: The study presents the findings that reached through the respondents of the sample to their questions, as follows:

##### 4.1. Findings related to the first question: "What are the requirements for applying electronic supervision in Arab schools in Israel from the viewpoint of school principals and teachers?"

To answer this question, arithmetic averages and standard deviations were calculated for the requirements for applying electronic supervision in Arab schools in Israel from the viewpoint of school principals and teachers for the dimension as a whole, and for each of its items, and table (1) shows that.

**Table (1): Arithmetic averages, standard deviations, and ranks of the requirements for applying electronic supervision in Arab schools in Israel from the viewpoint of school principals and teachers for the dimension in general, and for each of its paragraphs, arranged in descending order.**

no.	The question	arithmetic average	standard deviation	rank	degree
1	Internet is available in schools.	4.11	0.51	1	high
20	Electronic databases are available.	3.91	0.53	2	high
11	Technical computer accessories such as modern printers are available in the school.	3.88	0.61	3	high
10	Modern computer labs are available in the school.	3.87	0.42	4	high
16	There are modern computers in the school.	3.81	0.81	5	high
13	The Internet is available at high speeds.	3.61	0.39	6	medium
9	Computerized curricula are available to facilitate the process of electronic supervision.	3.41	0.56	7	medium
18	The infrastructure needed to operate modern technologies is available in the school.	3.15	0.64	8	medium
8	Electronic programs are available that provide feedback to supervisors on students' performance.	3.14	0.48	9	medium
17	The communication system used in the school is highly developed.	3.12	0.55	10	medium
15	Technicians are available to technically follow up the electronic supervision system.	3.01	0.36	11	medium
4	Programs to evaluate employee performance are available.	2.91	0.56	12	medium
5	An electronic system is available to save the data.	2.69	0.74	13	medium
12	Electronic supervision programs are available at the school level.	2.65	0.56	14	medium
2	Electronic educational programs are available to serve the supervisory process.	2.64	0.68	15	medium
14	Teachers are provided with free internet packages.	2.52	0.44	16	medium
19	There is a communication network linking the school with the community.	2.48	0.69	17	medium
3	An electronic library is available.	2.47	0.52	18	medium
7	Educational supervisors are provided with free internet packages.	2.41	0.45	19	medium
6	The educational supervisors are provided with laptops.	2.35	0.36	20	medium
The whole degree		3.11	0.26	medium	

It is noted from Table (1) that the degree of the requirements for applying electronic supervision in Arab schools in Israel from the viewpoint of school principals and teachers came in a medium degree, as the arithmetic average reached (3.11) with a standard deviation (0.26).

This result means that there are many difficulties in providing the requirements for applying electronic supervision in Arab schools, and this result may be attributed to the level of the material capabilities available to the school, to the level of government support provided to schools, in addition to the weak role of society in providing financial support to the school. Paragraph (1) came in the first rank, which states: "internet is available in schools" with a mean (4.11), and a standard deviation (0.51). This result means that the Internet is well available in schools, and that its use is available to all, and this result may be attributed to the educational orientation towards the use of information technology, and the use of modern technologies in learning and education. Paragraph (6) which states that "The educational supervisors are provided with laptops" came in the last rank, with an arithmetic mean (2.35) and a standard deviation (0.36). This result means that educational supervisors are not granted laptops to monitor teachers, the level of achievement, and progress in the school, and this result may be attributed to the

fact that the budget allocated to the school is strictly defined, and the grants provided by the community are weak.

The findings of this study are agree with the finding of the study of Abu Ghazaleh (2020) that showed that the total score of the tool came in the "medium" degree, where the "rules and laws of electronic supervision" was in the first place among the averages. While the "modern technology and the financial abilities" came in the latest place among the averages. Moreover, with Hazimeh (2020) that showed that the availability of the requirements of applying electronic educational supervision in Jordan- Northern Governorates from supervisors' point of view, was medium. In addition, with the study of Al- Eadammat (2020) that showed that the degree of exercise of educational supervisors in Zarqa First Educational Directorate for the concept of electronic supervision of the tool as a whole came (medium). The level of the dimensions came in descending orders as follow: the reality of the practice of electronic supervision, the highest average. Followed by, the dimension of the requirements of electronic supervision. Followed by, the importance of electronic. Followed by, the dimension of obstacles to the use of electronic supervision. The study findings of Abd al-Rahman (2019) showed that the overall score of the tool came with a "medium" score, where the "field of human needs" came first among the averages, while the "financial requirements field" came last among the averages. Moreover, with the study findings Abu Ghazaleh (2019) that showed that the overall degree of the tool was in medium degree, as the dimension of laws and legislation for electronic supervision ranked first among the averages, while the dimension of modern technological and material capabilities came last among the averages.

The findings of this study are Differ from the findings of Al-Qahtani study (2019). That showed that the use of electronic supervision in secondary schools in Riyadh from the point of female teachers view came to a high degree. As well as the point of female teachers view towards the obstacles to the use of electronic supervision in secondary schools in Riyadh came to a high degree.

The findings of this study are agree with many studies findings that showed there are many obstacles facing educational supervision, as the study findings of Al-Sayegh's (2018) study that showed that the main obstacles for the use of electronic supervision in kindergartens ranked first with an average of (4.15) high, followed by the importance of using electronic supervision in kindergartens, the extent of the use of electronic supervision in kindergartens, and finally the identification of eighteen obstacles to the use of electronic supervision in kindergartens and all of them to a high degree. And with the study findings of Abdulaziz's study (2017) that showed that there are many obstacles of the implementation of the e-educational supervision in the preparatory stage in Sohag governorate.

While the findings of this study are different with the study findings of Al-Daihani, Shame & Aljadi (2016) that indicated a high level of use of the educational supervisors for electronic applications in the areas of (managing, training, teaching, research, and communication) and supervisory processes. The role of electronic supervision in achieving the professional development of teachers found on high level too. Moreover, the findings of this study differ with the study findings of Al-Kindi (2018) that showed that there were large and medium difficulties regarding electronic supervisory, and the most of which were technical difficulties that came in a high degree, and the highest expression in which was the weakness of internet service by the service provider. Followed by, the administrative difficulties and the coordination between the supervisory authorities that supervises electronic.

#### **4.2. Findings related to the second question: "What is the level of electronic supervisory practices in Arab schools in Israel from the viewpoint of school principals and teachers?"**

To answer this question, arithmetic averages and standard deviations were calculated for the level of electronic supervisory practices in Arab schools in Israel from the viewpoint of school principals and teachers for the dimension as a whole, and for each of its items, and table (2) shows that.

**Table (2): Arithmetic averages, standard deviations and ranks of the level of electronic supervisory practices in Arab schools in Israel from the viewpoint of school principals and teachers for the dimension in general, and for each of its paragraphs, arranged in descending order.**

no.	The question	arithmetic average	standard deviation	rank	degree
15	The educational supervisors hold training courses for teachers that qualify them to deal with electronic supervisory practices.	3.92	0.62	1	high
9	The educational supervisors benefit from the technical facilities available at the school.	3.85	0.47	2	high
16	The educational supervisors train the teachers on electronic training programs.	3.82	0.32	3	high
7	The educational supervisors use electronic educational programs.	3.81	0.36	4	high
1	Educational supervisors use the Internet to communicate with their teachers.	3.71	0.52	5	high
17	Educational supervisors train teachers to access databases and develop themselves.	3.64	0.46	6	medium
8	Educational supervisors use modern computers in their supervisory practices.	3.62	0.38	7	medium
18	The educational supervisors train the teachers on continuous electronic communication.	3.57	0.81	8	medium
12	Educational supervisors use computerized approaches in their supervisory practices.	3.16	0.54	9	medium
5	Educational supervisors use an electronic system to archive teachers' data.	3.12	0.71	10	medium
3	Educational supervisors use an electronic system to save data.	3.01	0.61	11	medium
2	The educational supervisors use the internet to follow the supervisory processes.	2.96	0.47	12	medium
4	Educational supervisors use an electronic system to evaluate performance.	2.69	0.53	13	medium
13	The educational supervisors use a wide network of contacts that brings together the parties to the supervisory process.	2.67	0.77	14	medium
6	The educational supervisors use an electronic system to monitor students' data.	2.61	0.66	15	medium
10	Educational supervisors use the computer labs available in the school in their supervisory practices.	2.54	0.83	16	medium
11	The educational supervisors use electronic educational programs that serve the supervisory process.	2.39	0.46	17	medium
14	Educational supervisors use electronic programs to evaluate students' performance.	2.37	0.63	18	medium
The whole degree		3.19	0.22	medium	

It is noted from Table (2) that the level of electronic supervisory practices in Arab schools in Israel from the viewpoint of school principals and teachers came in a medium degree, as the arithmetic average reached (3.19) with a standard deviation (0.22).

This result means that there is a weakness in electronic supervisory practices in Arab schools in Israel. This result may be attributed to the lack of adequate training for the school community on the sustainability of modern technologies to make use of in the implementation of supervisory processes, and it may be attributed to the weakness of the material and technical capabilities that are the basis for electronic supervision. Paragraph (15) came in the first rank, which states: "The educational supervisors hold training courses for teachers that qualify them to deal with electronic supervisory practices" with a mean (3.92), and a standard deviation (0.62). This result means that educational supervisors receive training on the use of modern techniques in supervision, unlike other members of the school community, and this result may be attributed to the fact that training is limited to supervisory groups, which makes them the luckiest in this field. Paragraph (14) which states that "Educational supervisors use electronic programs to evaluate students' performance" came in the last rank, with an arithmetic

mean (2.37) and a standard deviation (0.63). This result means that the educational supervisors have a weakness in using modern programs, tools and techniques in evaluating students' performance as a substitute for evaluating teachers' performance. This result may be attributed to the weakness in providing the necessary techniques, especially the electronic evaluation programs, and to the weak interaction of the trained community with electronic supervision.

These findings are agree with the finding of the study findings of Abd al-Rahman (2019) that the overall score of the tool came with a "medium" score. In addition to the study findings of Abu Ghazaleh (2019) that showed that, the overall degree of the tool was in medium degree. The dimension of modern technological and material capabilities came last among the averages. These findings are agree with the finding of the study of Abu Ghazaleh (2020) that showed that the total score of the tool came in the "medium" degree, where the "rules and laws of electronic supervision "was in the first place among the averages. While the "modern technology and the financial abilities" came in the latest place among the averages. Moreover, with Hazimeh (2020) that showed that the availability of the requirements of applying electronic educational supervision in Jordan - Northern Governorates from supervisors' point of view, was medium. Moreover, with the study of Al- Eadammat (2020) that showed that the degree of exercise of educational supervisors for the concept of electronic supervision of the tool as a whole was medium. Moreover, the level of the dimensions came in descending orders as follow: the reality of the practice of electronic supervision, the highest average (3.95), with a rating (high). Followed by, the dimension of the requirements of electronic supervision with an average (3.61). Followed by, the importance of electronic supervision, with an average (3.50). Followed by, the dimension of obstacles to the use of electronic supervision, with an average (3.20).

While the findings of this study are different with the study findings of Al-Daihani, Shame & Aljadi (2016) that indicated a high level of use of the educational supervisors for electronic applications in the areas of (managing, training, teaching, research, and communication) and supervisory processes. The role of electronic supervision in achieving the professional development of teachers found on high level too. In addition, the findings of this study differ with the study findings of Al-Kindi (2018) that showed that there were large and medium difficulties regarding electronic supervisory, and the most of which were technical difficulties that came in a high degree. Moreover, the highest expression in which was the weakness of internet service by the service provider, followed by the administrative difficulties, and the highest phrase was weak coordination between the supervisory authorities that supervise electronic. Moreover, with the findings of Al-Qahtani study (2019) that showed that the use of electronic supervision in secondary schools in Riyadh from the point of female teachers view came to a high degree. As well as the point of view of female teachers towards the obstacles to the use of electronic supervision in secondary schools in Riyadh came to a high degree.

## 5. Recommendations and suggestions

In the light of the findings of this study, the researcher recommends the following:

- School administrations adopt to provide educational supervisors with free internet packages.
- School districts administrations adopt to provide educational supervisors with free portable computers.
- School districts administrations adopt to train the educational supervisors on using electronic educational programs that serve the supervisory process.
- School districts administrations adopt to train the educational supervisors on using electronic programs to evaluate students' performance.
- Conducting more studies applied to other societies to identify the level of electronic supervisory practices and comparing their results with the results of the current study.

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