



## The Readiness of Government Schools to Deal with the Emergency and Crisis Situations from School Administrators View Point

Mariam Al Khalidi<sup>1</sup>  
Hussein K. Almajali<sup>2</sup>  
Amaal A Masri<sup>3</sup>   
Fatima Raqqad<sup>4</sup>



(✉ Corresponding Author)

<sup>1,3</sup> Associate Professor, Princess Alia University College, Al-Balqa Applied University, Jordan.

<sup>3</sup> Email: [dr.amaalalmasri@yahoo.com](mailto:dr.amaalalmasri@yahoo.com)

<sup>2</sup> Associate Professor, Al-Ain University, United Arab Emirates.

<sup>4</sup> Instructure, Princess Alia University College, Al-Balqa Applied University, Jordan.

### Abstract

The study aimed to identify the readiness of government schools to deal with emergency situations and crises from the viewpoint of their administrators. Totalling (326) male and female administrators, the sample was randomly chosen during the first semester (2018/2019), and a tool was developed consisting of (26) items distributed in three domains. The results showed that the estimates of the sample members on all domains came with a high degree of readiness, and showed that there are statistically significant differences attributable to the variable of the school gender and in favor of males, and the presence of statistically significant differences attributable to variable years of experience and in favor (from 10-5 years, and more than 10 years), and the absence of statistically significant differences attributable to the variable of the academic qualification with the exception of the domain of preparedness and prevention and in favor of postgraduate, and the presence of statistical differences due to the variable of the school level and in favor of the (secondary) schools. The study recommends employing early warning devices to detect any emergency occurring in educational institutions.

**Keywords:** Crisis management, Emergency cases, School administrators, Public schools, Jordan.

**Citation** | Mariam Al Khalidi; Hussein K. Almajali; Amaal A Masri; Fatima Raqqad (2021). The Readiness of Government Schools to Deal with the Emergency and Crisis Situations from School Administrators View Point. Journal of Education and e-Learning Research, 8(1): 77-89.

#### History:

Received: 20 August 2020

Revised: 23 November 2020

Accepted: 4 January 2021

Published: 28 January 2021

**Licensed:** This work is licensed under a [Creative Commons](https://creativecommons.org/licenses/by/4.0/)

[Attribution 3.0 License](https://creativecommons.org/licenses/by/4.0/) 

**Publisher:** Asian Online Journal Publishing Group

**Acknowledgement:** All authors contributed to the conception and design of the study.

**Funding:** This study received no specific financial support.

**Competing Interests:** The authors declare that they have no conflict of interests.

**Transparency:** The authors confirm that the manuscript is an honest, accurate, and transparent account of the study was reported; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained.

**Ethical:** This study follows all ethical practices during writing.

### Contents

1. Introduction .....	78
2. Theoretical Framework and Previous Studies.....	80
3. Method and Procedures .....	83
4. The Results of the Study and its Discussion .....	84
5. Study Recommendations .....	88
References .....	88

### Contribution of this paper to the literature

This study contributes to existing literature by identifying the readiness of government schools to deal with emergency situations and crises from the viewpoint of their administrators.

## 1. Introduction

The educational system in Jordan faces several problems because of the accumulation of a set of external influences surrounding or defects in the internal educational systems, and this is not due to individuals, but rather the modernization of systems, instructions and laws that must develop society. It requires renovations and updates in the educational administrative instructions, and the methods used to deal with the causes of these emergency crises where the crisis is a critical and critical moment related to the fate of the administrative entity that was afflicted with it, constitutes a severe difficulty for decision makers, which makes them extremely confused about any decision they.

The educational institution (the school) is an important educational domain, and the crises that pass through it represent a critical point, and it has caused some principals to lose the ability to contain them, deal with them and make appropriate decisions towards them, which impedes the school in achieving its goals (Khudairi, 2003).

The contemporary school faces multiple types of crises whose causes are different, some of which are related to the student, teacher, or school building, including those related to natural conditions such as earthquakes, hurricanes and fires. Consequently, it affects the functioning of the school's educational system. This requires the immediate intervention of the administration to deal with it, and take the appropriate decision to prevent its occurrence, or reduce its negative effects on the workflow in the school (Al-Jahani, 2010).

Good school administration with the main indicators in educational practices in which material and human capabilities are invested is the best possible investment. The educational administration draws up the policies, while the school administration is concerned with implementing the policies and is a microcosm of the educational administration and has a role in the face of those emergency crises that occur in it. Crisis is a relatively recent concept in the science of management, as it was created in the beginning in the domain of public administration to refer to the ability of the state or institution to address crises, especially sudden ones resulting from causes and conditions beyond its control (such as earthquakes, fires, floods, and wars, ethnic and sectarian conflicts, epidemics, conflicts, and willful sabotage of facilities and property) (Alhazaima, 2004).

The concept of the school crisis and addressing it has come to be seen as an educational, social, and service act based on coordinated human efforts according to specific capabilities to achieve the desired goals. Crises here means sudden chaos as a result of an unexpected situation or event that all school personnel and sometimes members of the local community may be exposed to that could be the result of performance disturbances, and it may lead to problems, conflicts, or clashes, which require taking practical measures for a fundamental solution. Ahmed (2002) defines it as a temporary state of distress and poor organization and a defect in the administration, which leads to the inability of the manager to face a specific situation by using traditional methods in dealing with the situation, and leads to results that are often undesirable, especially in the absence of willingness or ability to face it.

(Al-Yahyoi, 2006) refers to the concept of school crisis management as a method for dealing with crisis with systemic processes, the administrative process through taking preventive measures that avoid the occurrence of the crisis, and reduce its negative effects, and achieve the most positive results. The current study seeks to identify the reality of government schools being prepared to deal with emergency situations and crises from the viewpoint of their principals, by examining the strategies and methods that managers use to solve problems and crises facing them, and learning useful lessons from the experience that they have after the crisis has occurred. And to follow any patterns in the creative administrative leadership that the principal follows in dealing with that crisis, whether that crisis is linked to factors outside the school or to teachers and students inside the school.

### 1.1. The study problem

Public education (public and private) is the basic building block for students' capacity and skills and for this reason, the principals of schools are concerned with the importance and importance of preserving buildings and the requirements and supplies they contain to support the educational process. The occurrence of crises has become a reality and intervention is necessary to face these crises in a timely manner before they escalate, as is supporting the process of future development and growth in light of the rapidly increasing global challenges. In the event of an emergency crisis within the educational institution there may be a lack of a work plan for staff and rescue teams to deal with the crisis. The crises experienced by educational institutions represent a critical point in the vicinity of the educational institution, and methods are mixed with results.

This leads managers to lose their ability to deal with them and make appropriate decisions about them. Kovoov (1991) pointed out the effects caused by the failure to prevent a crisis in educational institutions, have led to the availability of plans to confront those crises in these institutions.

the most important elements in developing any successful plan for crisis management is the extent of the availability of an integrated work team that has the ability to deal with any emerging emergency crises, and the speed of response in determining the location and type of crisis, and defining the clear responsibilities of each member to carry out their tasks and set the necessary plans, procedures and tools, and steps to address crises, while carrying out the evaluation process that shows the stages through which the crisis was dealt with.

### 1.2. Study Questions

**The first question:** "What is the degree of readiness of public schools to deal with emergencies and crises from the viewpoint of their principals?"

**The second question:** "Are there statistically significant differences at the level of significance ( $\alpha \leq 0.05$ ) between the estimates of the sample individuals about the degree of readiness of public schools to deal with emergency situations and crises attributable to variables: (school gender, number of years of management experience, educational qualification and school level)? "

### *1.3. Objectives of the Study*

This study aimed to identify the readiness of government schools to deal with emergency situations and crises from the viewpoint of their principals. The study also sought to achieve the following goals:

- Identify the school crises that educational institutions (schools) are exposed to, from emergency situations, whether cracking in construction, building demolition, fires resulting from electrical wiring, theft, and attacks on school buildings.
- To reveal the degree of readiness of government schools to deal with emergency and crisis situations from the viewpoint of their principals.
- Detecting the degree of readiness of government schools to deal with emergency situations and crises according to variables (school gender, number of years of administrative experience, educational qualification and school level).
- Determine indicators that assist principals in public and private schools to face these emergency crises.
- Develop a future strategy and plan to deal with the school crises faced by secondary and primary school principals based on the proposed solutions.

### *1.4. The importance of the Study*

The current study acquires its importance through the following:

- Contributing to providing a specific strategy to deal with crises and emergency situations that occur in educational institutions, thereby gaining knowledge in following sound procedures to deal with those developments that result from the occurrence of any emergency crises.
- Contributing to providing security, safety and stability, and providing a healthy climate in educational institutions, which increases the ability of directing the administration in the care of buildings, classrooms, school laboratories and playgrounds.
- Training all educational cadres in the institution to face any emergency that might happen in it, enabling everyone to stand in a row to face those emergencies through planning, organizing, directing, and coordinating the efforts of the employees in the institution and taking appropriate decisions.
- Disclosing of the possibility of cooperation, communication between the school administration and the Department of Education, especially with the emergency team formed in those departments.

### *1.5. Study Limits*

The results of this study are determined by a set of limitations, namely:

- The human and spatial determinant: The study was applied to the principals of government schools in the capital governorate and affiliated to the Jordanian Ministry of Education in the directorates of education in the central region.
- Temporal determinant: This study was applied during the first semester of the academic year (2018/2019).
- The objective determinant (procedural): The results of the study were limited to the validity and reliability of the measuring instrument used in the study, which the researcher prepared and developed, and was prepared by a questionnaire consisting of (26) items distributed on three axes (The domain of discovering early warning signs, the domain of preparedness and prevention, and the domain of containing damage) in the light of study variables, school gender, number of years of teaching experience, educational qualification, and school level.

### *1.6. Procedural Definitions of Study Terms*

- **Crisis:** *Khudairi (2003)* defines it as a situation facing decision-makers in educational institutions, where, events coincide, causes are intertwined with results, and decision-makers lose their ability to control them or their future directions. It is defined in the study procedurally as "a state of sudden instability that occurs within the educational institution, which leads to a malfunction in the system that may affect the functioning of the institution, which results in undesirable negative effects, and to face external pressures, problems and internal tensions on the workflow, and this requires quick decisions and actions to limit its development, increase its severity, and reduce the confusion it has caused in school and its encirclement."
- **Educational Crisis Management** *Abu Kaef (2002)* defines it as employing various methods and strategies on how to face crises and the methods used to deal with them through the scientific, administrative methodology. It is defined in the study procedurally as following administrative procedures within a smooth administrative methodology that can come up with quick solutions and reduce damage.
- **Emergencies:** These are the crises that the school faces such as natural conditions (earthquakes, hurricanes, volcanoes, fires, electrical contact) Consequently, it leads to a defect that affects the functioning of the educational system in the school, which requires immediate intervention from the administration to deal with it and take the appropriate decision and reduce its negative effects on the functioning of the school (*Al-Jahani, 2010*).
- **Governmental schools:** are the educational institutions and the place of education and teaching in which students receive lessons in various sciences and are the basic building block in society to create generations that advance the nation and keep pace with science, development and civilization. The study consists of two phases, which are basic and secondary, and it is called compulsory primary education in many countries. The schools are divided into government schools, private schools and international schools.
- **School Principal:** The leader and the educational supervisor who has a major impact on the conduct of educational work, as they are directly responsible for all educational processes in the school. As the principal distributes the work to their school assistants, teachers, laboratory preparers, and student counselors, the principal is interested in developing the school environment in all its aspects, from cleaning the school to preparing classrooms and providing all its requirements in cooperation with the Education Department.

## 2. Theoretical Framework and Previous Studies

### 2.1. First: The Theoretical Framework

There is an urgent need for an independent field specialized in crises and disasters facing educational institutions, and how to manage and confront them. For this reason, the field of crisis and disaster management has emerged, and the importance of this field and its concepts and characteristics make it a different field in its methods and applications. Note that it is one of the modern administrative fields, whose importance has increased in the present time, due to its role at the internal and external levels. It aims to control sudden events, how to deal with them, classify them, and face their effects and results, and is based on study, research, knowledge and experiences learned, planning and using information and data as a basis for a sound decision. Here, the principal of the school has to deal with the crisis in an immediate and rapid manner in order to stop its escalation, and to control and curtail it. Various media must be used when managing and facing different crises and disasters, before they occur, during their occurrence or after their completion, which necessitates highlighting this role and its importance in providing security and stability for workers, students and the local community.

### 2.2. What is a Crisis?

Many definitions of crisis and disaster have emerged, and concepts and views differ in each country and society, according to their view of the crisis or disaster. There are those who see that the crisis is a sudden event that causes pressure for the decision-maker, which requires confronting this event with scientific methods and methods that help to eliminate it before it becomes worse. And there are those who believe that the reason for the occurrence of the crisis is the lack of expectation of it occurring despite the appearance of signs of its occurrence, or misunderstanding or wrong dealing with its events.

Crisis: it means sudden change for better or worse (Baalbaki, 1980). The crisis, in the administrative sense, is a situation that confronts decision-makers so that they have to control it or its future directions, so that events coincide and causes are intertwined with results (Khudairi, 2003). And it is a very unusual situation that threatens the business, reputation, image and relationships of the institution and harms its audiences (Falkheimer & Heide, 2006).

The crisis is described with negative effects such as: Confusion, disorganization, conflict, confusion, excessive stress that leads to irrational behavior; and positive influences: mobilization, cohesion, cooperation, adaptation to the environment, learning by experience. Thus, the concept of crisis has shifted from the traditional view that describes it as an event that destroys or affects the organization as a whole, to the strategic view, as a defining moment and a turning point for the better or worse (Boin and McConnell, 2007). It is used in the domain of public administration to refer to the ability of the state or institution to deal with crises, especially sudden ones resulting from the causes of circumstances beyond its control, such as earthquakes, fires, floods, and wars, ethnic and sectarian conflicts, epidemics, conflicts, and willful sabotage of facilities and property (Alhazaima, 2004).

As for the disaster, its definition is almost different according to its size and the material and moral damage. There are those who see that the occurrence of a material accident resulting in deaths, injuries and material losses considered a disaster. And there are those who see that the spread of an epidemic or infectious disease causing deaths is considered a disaster, and there are those who see that the occurrence of material losses as a result of a devastating hurricane or fires, is a disaster, which requires the intervention of the state or the international community to provide assistance and reduce the damage. A disaster is all means, procedures, and activities that are implemented continuously in the stages before, during, and after a disaster, and they aim to prevent the disaster, confront the disaster efficiently and effectively, and reduce the loss of life and property to the lowest possible extent, and removing the psychological effects of the disaster on the workers, improving and developing capabilities in facing these disasters (Hashem, 1998).

The researcher defines it as an event that is caused by natural or human factors that result in some severe damages that have a negative impact on the school and building and needs capabilities in the face of the disaster that disrupts the movement of work and causes human, material and environmental losses that need to be confronted with capabilities that exceed local capabilities.

Maher (2006) states the following causes of a crisis, which contribute to making an effective and speedy decision:

A. Misunderstanding: As the error occurs in receiving and understanding the available information received from that crisis, this may be due to its lack or overlap, and it was received from several sources.

B. Misjudgment: This is due to doubts about the information provided or the giving of some value to the information.

C. Mismanagement: This is caused by randomness, administrative tyranny, or the absence of regulations for administrative processes.

D. Goals and interests' conflict: These are due to the different personality, interests, or inclination of the parties to the interest and their goals and objectives.

E. Human errors: The weakness of the ability and desire of the parties to the crisis to deal with it, due to the absence of training, lack of experience, or decreased motivation.

F. Rumors: This occurs as a result of the use of false and misleading information, tension and anxiety that leads to the crisis due to a lack of facts among workers or the confusion of managers.

G. Despair: Frustration in finding appropriate solutions to the problem, which is due to the administrative repression followed by some managers and the lack of clarity in the instructions in administrative systems.

H. The desire to blackmail: The decision-maker was exposed to psychological, material and personal pressure and to take advantage of his unintended mistakes when the crisis occurred.

I. Lack of confidence in others (employees) and in the educational institution as a result of fear, tyranny, or the inefficiency of the school principal in taking appropriate action.

J. Multiple crises (AL-hlo, 2010): They occur in the institution as a result of conflicts between the School Manager and the workers and are sometimes created to camouflage on larger crises.

### *2.3. The Elements of Successful Crisis Management are based on the Following: (Tritz, 2001)*

- Immediate and rapid response to deal with the crisis.
- Stand on to purify the flow of information in a positive and candid manner.
- Delivering real messages from managers to workers, students and families about the containment of the crisis.
- Dealing with the new situation by providing all humanitarian aid to the affected people.
- Concentrate the trainee spokesperson with one person and define his job.

The main elements of crisis management were established by [Lukaszewski \(1999\)](#) as follows:

- Administrative delegation by managers is of great importance in making a decision that contributes to the development of a crisis management strategy that is progressing over time and then speed of implementation.
- The decisive action, as crises happen at an unexpected speed and leave many problems behind, which necessitates that the response be effective with critical and positive accumulations, which reduces the size of the crisis or reduces its accompanying effects.
- The appropriate behavior of management before, during and after crises to quickly re-consider and ensure the reputation of the institution through immediate and careful action, and the important and brief statement that deserves to be heard and repeated, as there are no secrets in crisis situations.
- Avoid the coldness in dealing with the crisis, which is a source of anger, frustration, legal prosecution, and poor media coverage.
- Direct and personal interaction with victims and those who are directly affected, including workers, which reduces the strength of opponents, the pressure of the media.
- A failure to evade responsibility provides the solution and opportunity to restore the institution's reputation, and enhances its affiliation.

[Kadri \(2008\)](#) lists the stages of crisis management. Crises go through five basic stages. If the manager fails to manage one of these stages, they become responsible for the occurrence of the crisis and the exacerbation of its events.

### *2.4. The First Stage:*

Detection of warning signs: This appears through early warning signs or symptoms that predict the possibility of a crisis, the devices that transmit early signals must be activated and managers are ready to face such signals and avoid them as possible.

### *2.5. The Second Stage:*

This stage is based on preparing the institution to be able to prevent any emergency, and this requires setting appropriate plans to follow developments and possibilities to avoid crises and disasters. The principal may be able to analyze, conclude, and visualize, optimism, ambition, willpower, and speed in making decisions, and the ability to pay attention, awareness and eagerness, the ability to control emotions, and the use of logic and the scientific way of thinking.

### *2.6. The Third Stage: Containing and Limiting the Damages*

In order to face crises in the future, it is necessary to ensure the presence of first aid, and to provide fire extinguishers, their effectiveness and suitability, and make sure of the communication devices with officials in the education departments ([Jad Allah, 2008](#)) analysis and interpretation of early warning signals, and tabulation, analysis and storage on computers.

### *2.7. The Fourth Stage*

Activity recovery This phase includes preparation and implementation of short and long-term supplied software. It must be tested to show the extent of its response to any emergency, and the reverse has emerged to develop appropriate solutions in order to protect the assets and raise morale, and to prepare the task force assigned to do so.

### *2.8. The Fifth Stage: Education*

It requires continuous education and training to reassess, improve, reveal what has been accomplished, and prepare for the future. The school should coordinate with the Education Directorate to implement programs to face crises, to identify global educational experiences in the domain of educational crisis management, and take advantage of the experiences of others, come out from the lessons learned and try to avoid them in the future, and pay attention to studying aspects of the crisis, with the necessity of having a reference scientific body that provides advice to the media, paying attention to spreading practical culture, and developing practical plans and training in them to face crises.

### *2.9. Previous Studies*

There are many Arab and foreign studies that have been conducted on government schools and their emergency readiness.

[Zoubi \(2014\)](#) conducted a study aimed at identifying the degree of availability of the elements of crisis management in the directorates of education in the Irbid Governorate from the viewpoint of the department heads in them. To achieve the objectives of the study, the researcher used the descriptive analytical approach, and a questionnaire was designed consisting of two sections. The first section included information on the study variables related to the individuals of the sample, and the second section consisted of (34) items divided into (5) areas. The domain of discovering early warning signs included (7) items, the domain of preparedness and

prevention, which included (8) items, the domain of containing damages, which included (5) items, the domain of activity recovery, which included (6) items, and the domain of learning, which included (8) items.

The study population consisted of (41) department heads, where the study sample consisted of (37) department heads in the directorates of education in the Irbid governorate, and the results showed the availability of elements of crisis management in the directorates of education in the districts of Irbid governorate with a high degree, the absence of statistically significant differences in the degree of availability of crisis management elements due to gender and experience variables. The study recommended that attention be paid to collecting detailed information in the sites affected by the crisis by the Education Directorate, and establishing early warning signs to detect the presence of a crisis in the directorates of education.

Hassan and Dabbous (2011) conducted a study aimed at identifying educational crises in public secondary schools in Palestine and how to manage them from the perspectives of administrators. The study population consisted of all directors and principals of public secondary schools in northern Palestine for the academic year (2008-2009), who numbered (196) male principals and (186) female principals with a total of (382) individuals. The qualitative approach was adopted by interviewing the sample of (50) male and female principals in the governorates of northern Palestine for their suitability for this study.

The study found that educational crises in public secondary schools in Palestine are divided into two parts, the first of which is general crises, which are represented in the occupation crisis, the curriculum crisis, the teacher's crisis, and the student's crisis. The relationship crisis with the local community, the school construction crisis, and the second section are special crises, related to each district separately. The results showed that high school principals and principals adopt traditional methods and attitude leadership in their management of crises by trying to control the crisis as much as possible, surrounded by a measure of secrecy and dissolve it and override it as quickly as possible. The heads of public secondary schools and their principals are calling for broader powers, especially for managing the crisis without referring to the Education Directorate at the moment of the crisis and removing the Palestinian school from the cycle of conflict and partisan and political differences.

Faraj (2011) conducted a study aimed at identifying the extent to which principals practice school crisis management skills from the viewpoint of both principals and teachers in general education schools for girls in the city of Makkah Al-Mukarramah. The researcher used the descriptive survey method with a questionnaire containing five skills: confronting stress, innovative thinking, communication, team development and teamwork, time management. The results of the study found that the general education school principals' practice of school crisis management skills was at a high degree for the skills of time management and creative thinking, and with a very high degree for the skill of facing pressure, the skill of developing team spirit and teamwork, the skill of communication. The female teachers' response was that the principals practiced the skill of school crisis management with a high degree. There were statistically significant differences at the level of 0.05 with the study community answers from female directors and teachers, about the extent to which principals of public education schools practice school crisis management skills due to the job and these differences were in the interest of the principal.

Aldelmani (2010) conducted a study aimed at detecting the most prominent school crises in general education schools in the State of Kuwait, identifying the obstacles of crisis management, and presenting some proposals for crisis management. The descriptive approach was used in the study, and a questionnaire was prepared to collect information from the study community of 552 male and female managers. The results of the study indicated that the most prominent crisis is the use of mobile devices by students. It was clear that school personnel are not trained to provide first aid to the injured and that there was a lack of security services near schools. The study confirmed the establishment of crisis management units at the administrative educational levels, and develop clear plans to deal with crises, and the presence of a permanent team for crisis management in the school, and define roles for everyone in the team, building a database and information about the school and about crises, and holding regular meetings to discuss expected crises and how to manage them. Among the most important recommendations of the study was the establishment of a specialized crisis management unit at the level of the Ministry and educational districts and conducting periodic training for teachers and students on first aid procedures and establishing an automatic information system that includes student and teacher data.

Birkland (2009) conducted a study that assessed the effectiveness of crisis management plans during a crisis. The study sample consisted of six middle and secondary primary schools in the American city of Detroit, the results of the study indicated the ineffectiveness of the crisis management plans established in the participating schools, in addition to the schools that are exposed to a crisis that do not learn from their previous experiences.

Adams and Kristonis (2006) conducted a study that analyzed crisis management plans in six schools that were previously exposed to a crisis. The results indicated that the schools that were exposed to previous crises developed effective plans for managing crises in the future and that it is possible to benefit from the experience of schools that were exposed to previous crises in other schools in terms of developing effective future plans for crisis management.

In a study by Gentilucci (2007) on managing communication during a school crisis, which was a case study of a student's death in a rural school in the United States, the study indicated that communication should be the first priority of the school principal during the crisis, as the parties involved in the crisis need to know the events of the crisis first-hand. The study showed how the success of the communication method has increased public confidence in the capacities of managers and teachers to manage crises, where the situation analysis provided school principals who may face similar crises, with lessons. The school principal's initiative to contact the parties involved in the crisis, whether publicly or personally is, one of them and others include that the school principal's speech should be unified for all media outlets, consulting and seeking help from experts, and the need to learn from mistakes.

Wilkins (1998) undertook a study on the analysis of crisis management programs leading to the development of a model for secondary schools. As this study aimed to assess the need and use of crisis management plans in secondary schools and develop a model plan in them, a survey was conducted on 50 educational districts in Georgia, in the United States. In order to obtain written answers, interviews and phone calls, the study revealed that 20% of the systems surveyed do not have crisis management plans, while 80% of systems have some kind of

crisis management plans in their system. The researcher examined the crisis management plans and divided them into two categories: crisis management plans and emergency response plans.

### 3. Method and Procedures

Below is a description of the study population and its sample, the study tool, methods of verifying its validity and reliability, study variables, and the statistical treatments that were used to reach the results.

#### 3.1. Study Methodology

The researcher used the analytical survey method to collect data and analyze it, in order to answer the study questions. This is the ideal approach for such studies (Odah, 2007). Data was collected and analysed during the first semester of the academic year (2018/2019).

#### 3.2. Study Population

The study population consisted of all the principals of government schools in the capital governorate, which numbered (822) of whom (312) were male only school principals, and (161) were female only principals. 349 female principals of mixed or co-ed schools were also included.

#### 3.3. The Study Sample

A random sample consisting of 326 principals was taken. Of them 121 were a male only school principal, 61 a female only school principal, and 144 a mixed school principal, making up 39.66% of the study population. Table 1 shows the distribution of the sample population according to its variables.

**Table-1. Distribution of study sample individuals according to their variables.**

Variables	Levels	Repetition	percentage
School gender	Male	121	37.12%
	Female	61	18.71%
	Mixed	144	44.17%
Years of teaching experience	Less than 5 years	86	26.38%
	From 5 to 10 years	90	27.61%
	More than 10 years	150	46.01%
Educational qualification	Bachelor	191	58.59%
	Postgraduate	135	41.41%
School level	Basic	236	72.39%
	Secondary	90	27.61%
Total		<b>326</b>	<b>%100.00</b>

#### 3.4. The Study Tool

The researcher used the questionnaire "the readiness of government schools to deal with emergency situations and crises from the viewpoint of their principals." It consisted of 26 items distributed in three areas: the area of early warning signs discovery, which included 9 items, and the domain of preparedness and prevention. It included 11 items, and the domain of containing the damages included 6 items.

#### 3.5. Validity of the Questionnaire

To verify the validity of the questionnaire, the researcher presented it to ten arbitrators with expertise and experience in management colleges and officials in the Ministry of Education and Civil Defense. The guidance and suggestions of the experts of the jury were taken into consideration, as the linguistic wording was modified for some of the items.

#### 3.6. Reliability of the Questionnaire

To ensure the stability of the questionnaire, the researcher calculated the stability coefficients by applying and re-applying the method, as it was applied twice to an exploratory sample outside the study sample and they are 26 male only school and female only school principals. There was an interval of two weeks between the first application and the second application. Pearson correlation coefficients were calculated between the results of the two applications, where the stability coefficients for the ranges ranged between (0.83 - 0.90), and the value of the correlation coefficient of the questionnaire was totally 0.92.

#### 3.7. Questionnaire Correction Process

A five-step scale was used as Likert five-step scale as follows: (Strongly agreed, Agree, Neutral, Disagree, Strongly disagree), the following numerical estimates (5, 4, 3, 2, 1) were given, respectively, to estimate the degree of readiness of public schools to deal with emergencies and crises, the following statistic was used to distribute of arithmetic averages (Odah, 2007):

- First: (1.00 - 2.49) low degree readiness.
- Second: (2.50 - 3.49), medium degree readiness.
- Third: (3.50 - 5.00) High degree readiness.

#### 3.8. The Study Variables

##### 3.8.1. The Study Included the Following Variables

**First:** Intermediate variables:

- School gender: It has three categories: (male, female, and mixed).

- Years of Experience: It has three levels: (less than 5 years, 5-10 years, more than 10 years).
- Academic qualification: It has two levels: (BA, Postgraduate Studies).
- School level: It has two levels: (basic, and secondary).

**Second:** dependent variable:

The degree of readiness of public schools to deal with emergencies and crises, which is expressed by the arithmetic mean for the estimates of the sample members on the items and areas of the questionnaire prepared for that.

### 3.9. Statistical Methods Used in Analyzing Study Data

The SPSS program was used to analyze the data of this study and to extract the results according to the following statistical methods:

- Extracting arithmetic averages and standard deviations of the responses of the study sample individuals to answer the first question from the study questions. To determine "the readiness of public schools to deal with emergency situations and crises from the viewpoint of their principals."
- Multiple contrast analysis test was used.
- Quadrant contrast analysis test was used.
- Chevy test was used.

## 4. The Results of the Study and its Discussion

The following is a presentation of the results reached after the researcher collected data using the study tool: which is a questionnaire about "the readiness of government schools to deal with emergency situations and crises from the viewpoint of their principals." The researcher presented them according to the study questions.

**Results related to the first question:** What is the degree of readiness of government schools to deal with emergency and crisis situations from the viewpoint of their principals? "To answer the first question, arithmetic averages and standard deviations were calculated for the estimates of the sample individuals on the questionnaire domains. This was as shown in [Table 2](#).

**Table-2.** The arithmetic mean and the standard deviations for the estimations of the sample individuals on the questionnaire domains arranged in descending order according to the arithmetic mean.

Rank	Number	Domains	Arithmetic average*	Standard deviation	Degree of readiness
1	2	The domain of preparedness and prevention	3.74	0.53	High
2	3	Damage containment domain	3.38	0.57	Medium
3	1	Early detection signals domain	3.34	0.49	Medium
The questionnaire as a whole			3.52	0.43	High

**Note:** \* The highest degree of (5).

[Table 2](#) shows that the domain of preparedness and prevention achieved the first rank with an average of (3.74) and a standard deviation of (0.53). Damage containment came in second place with mean of (3.38) and standard deviation of (0.57), while detection of early warning signs occupied the last rank with mean of (3.34) and standard deviation of (0.49), the mean was calculated for the estimates of the sample individuals. On the questionnaire domains of (3.52) with a standard deviation of (0.43), and it corresponds to a high degree of readiness.

The researcher attributes this to the role played by managers in the domain of preparedness and prevention and their readiness to prepare a plan for new crises in the educational institution. Making crisis planning an important part of strategic planning and forming a team of workers to face the crisis, preventive forecasting should be adopted as a prerequisite in the crisis management process through proactive management based on warning predictive thought in order to avoid an early crisis by formulating an acceptable protective system based on creativity and innovation and employee training and taking quick decisions despite receiving abundant information about the crisis.

The lack of information may lead to management being unable to make correct and decisive decisions, and it is necessary to cooperate with the Department of Education in the region, to communicate with the institutions of the local community (Civil Defense and Hospital Equipment), stand on the causes of the crisis and reduce tension and restore morale among school personnel and review the database for crisis management and provide appropriate solutions. The results of this question are consistent with the results of the [Aldelmani \(2010\)](#) and they differ with the results of the [Faraj \(2011\)](#). Mathematical averages and standard deviations for the estimates of the sample individuals on the items of the questionnaire domains were calculated, as follows:

### 4.1. The First Domain: The Domain of Discovering Early Warning Signs

Mathematical averages and standard deviations for the sample population estimates were calculated on the items of this domain, as they were as shown in [Table 3](#).

[Table 3](#) shows that Item No. 4 which states: "Taking quick, decisive, and appropriate decisions to control the situation and directing it to the appropriate destination" ranked first with an arithmetic average (4.07) and a standard deviation (1.09). Item No. 8, which states: "I employ advanced computerized programs in the process of organizing databases to deal with emergency crises," came second with an average of (3.73) and a standard deviation (1.06). Item 26 which states: "I put in an organizational structure that is flexible enough to help in cooperation and communication between all workers inside the school." came in last with an arithmetic average (2.87) and a standard deviation (1.21).

**Table-3.** Arithmetic averages and standard deviations for the sample population estimates on the domain of detection of early warning signs in descending order.

Number	Domains	Arithmetic average*	Standard deviation	Degree of readiness
4	Make quick, decisive and appropriate decisions to control the situation and direct it to the appropriate destination.	4.07	1.09	High
8	Employing advanced computerized programs in the process of organizing databases to deal with emergency crises	3.73	1.06	High
19	I am preparing a training program for school personnel to deal with crises	3.39	0.93	Medium
22	I make long-term plans to cope with emergency crises	3.26	1.14	Medium
21	I use school radio in the process of correcting the rumors while facing the emergency crisis	3.25	0.92	Medium
13	I follow any negative phenomenon that occurs inside the school periodically, continuously and effectively	3.21	1.08	Medium
12	I make sure to follow up on the regular maintenance of the school including the maintenance and provision of safety and security facilities.	3.15	1.18	Medium
20	I employ the scientific method in planning the crisis, which reduces losses and achieves balance	3.10	1.04	Medium
26	I put in place an organizational structure that is flexible enough to help in cooperation and communication between all workers within the school.	2.87	1.21	Medium
Domain as a whole		3.34	0.49	Medium

Note: \* The highest degree of (5).

The mean of the sample estimates for the individuals in this domain was (3.34) and a standard deviation (0.49), and it corresponds to an average degree of readiness estimate. This may be due to the lack of employment of the latest technology in schools and providing them with programs that speed the delivery of messages and early warnings before they occur. When a crisis explodes with great force, generating huge energy, whose dimensions are difficult to determine due to the massive shock it causes, a state of imbalance and lack of vision prevails. The morale of the decision maker collapses and there is a lack of control because of random decisions, which creates tension and turmoil when taking critical decisions.

#### 4.2. The Second Domain: The Domain of Preparedness and Prevention

Mathematical averages and standard deviations for the sample population estimates were calculated on the items in this domain, as they were shown in Table 4.

**Table-4.** The arithmetic mean and the standard deviations for the estimations of the respondents on preparedness and prevention are arranged in descending order.

Number	Domains	Arithmetic average*	Standard deviation	Degree of readiness
1	I have a crisis management plan that will happen in school	4.39	0.92	High
3	I am forming a team with different specializations to address any emergency that arises in the school	4.23	0.99	High
6	I strive to reduce stress and restore morale among school personnel	4.17	1.03	High
7	I make sure to provide effective priorities to cope with the crisis	4.07	1.10	High
5	I coordinate with local community institutions such as the security agencies (police, civil defense, and hospitals) to deal with emergency events.	4.05	1.05	High
11	I employ the role of decision-makers from education departments to surround the emergency crisis	3.79	1.03	High
2	I allocate money from the school budget for any emergency crisis occurring in the school	3.61	1.14	High
17	I provide devices that provide early warning signals to detect a crisis	3.39	1.02	Medium
23	I seek to train all school personnel to deal with emergency crises with systematic and organized scientific steps.	3.27	0.96	Medium
24	I am seeking to provide a database for emergency crisis management	3.25	1.15	Medium
14	I contribute to providing preventive and security awareness before the crisis occurred.	2.92	0.98	Medium
Domain as a whole		3.74	0.53	High

Note: \* The highest degree of (5).

Table 4 shows that item (1) which states: "I have a plan for managing crises that occur in the school", ranked first with an average of (4.39) and a standard deviation (0.92). Item No. (3) which states: "I form working teams with different specializations to address any emergencies that arise in the school", ranked second with an arithmetic average (4.23) and a standard deviation (0.99). Meanwhile, item (14), which states: "I contribute to providing preventive and security awareness before the crisis occurred," ranked last with an arithmetic average (2.92) and a standard deviation (0.98).

The average of the sample estimates for the individuals in this domain was (3.74) with a standard deviation (0.53), which corresponds to a highly prepared estimate. This can be attributed to the fact that managers have a plan with a strategic dimension in which to lay down the strategic dimensions through which all the efforts of

workers are mobilized in facing the crisis and addressing it before it occurs, draw a map of the theater of crisis operations and identify the safest places to take as starting points and protection rules, and distribute the roles to the crisis management team and mobilize all the tools and equipment needed to deal with the crisis.

### 4.3. The Third Domain: The Domain of Containing the Damages

The arithmetic averages and standard deviations for the sample population's estimates, were calculated on the items in this domain, as they were shown in Table 5.

**Table-5.** Arithmetic averages and standard deviations for the estimates of the sample members on the domain of containing the damages in descending order.

Number	Domains	Arithmetic average*	Standard deviation	Degree of readiness
9	I absorb the necessary pressure to lose its influential power	3.86	1.09	High
10	I underestimate the crisis and prevent the spread of rumors and exaggerations in talking about it	3.77	1.09	High
15	I contribute to providing preventive and security awareness during the crisis	3.29	1.01	Medium
18	I encourage the use of innovative and creative thinking skills to deal with emergency crises to suggest appropriate alternatives	3.27	1.15	Medium
16	I am setting up an operations room to follow the developments of the crisis	3.19	1.12	Medium
25	Identify a quick means of communication to inform the students' parents in the event of a crisis	2.91	1.10	Medium
Domain as a whole		3.38	0.57	Medium

Note: \* The highest degree of (5).

Table 5 shows that Item (9) which states: "I absorb the necessary pressure to lose its influential power," ranked first with an arithmetic average (3.86) and a standard deviation (1.09). Item No. (10), which states: "I underestimate the crisis and prevent the spreading of rumors and exaggerations in talking about it," came second with an average of (3.77) and a standard deviation (1.09). Item (25) which states: "Identify a quick means of communication to inform the students' parents in the event of a crisis" had the last rank with an average score of (2.91) and a standard deviation (1.10).

The average of the sample estimates for the individuals in this domain as a whole was (3.38) and a standard deviation (0.57), and it corresponds to an average degree of readiness estimate. The researcher attributes this to the fact that the principals face pressure due to the increased administrative and supervisory burdens that fall on the responsibility of the school principal in addition to the crisis management file in schools, which leads to restricting the school principal's tasks in following up administrative records and supervisory process in a routine manner.

We do not overlook that weak communication channels with the education departments in an active and effective manner may lead to the absence of the school administration from some of the events and developments. A lack of training courses to confront crises, and failure to keep pace with the scientific and technological developments that are employed in schools may hinder the resolution of the crisis, and dealing with crises that occur in schools must be subject to the scientific methodology, intellectual rationality, preparation, advance planning, experience and know-how in dealing with the signs of the crisis, and not to allow its spread or the deterioration of events.

**Results related to the second question and its discussion:** Are there statistically significant differences at the level of significance ( $\alpha \leq 0.05$ ) between estimates of respondents about the degree of readiness of public schools to deal with emergency situations and crises attributable to variables: school gender, number of years of administrative experience, educational qualification, and school level?

To answer this question, arithmetic averages and standard deviations were calculated for the sample's estimates about the degree of readiness of government schools to deal with emergency situations and crises from their point of view according to their variables, where the results were as shown in Table 6.

**Table-6.** Arithmetic averages and standard deviations for the estimates of the sample individuals on the degree of readiness of public schools to deal with emergency cases and crises from their point of view according to their variables.

Domains	Variables	Early detection signals domain		The domain of preparedness and prevention		Damage containment domain		Domains as a whole	
		Mean	STD	Mean	STD	Mean	STD	Mean	STD
School gender	Male	3.37	.508	3.86	.502	3.41	.570	3.59	.439
	Female	3.35	.550	3.77	.561	3.39	.615	3.54	.468
	Mixed	3.30	.453	3.63	.523	3.35	.547	3.45	.407
Years of Experience	Less than 5 years	3.22	.485	3.82	.574	3.30	.594	3.49	.449
	From 5 to 10 years	3.41	.518	3.76	.468	3.43	.532	3.58	.403
	More than 10 years	3.45	.483	3.75	.539	3.40	.571	3.50	.443
The scientific qualification	Bachelor	3.36	.510	3.59	.538	3.41	.565	3.58	.451
	Postgraduate	3.31	.466	3.85	.487	3.33	.569	3.43	.395
School level	Basic	3.22	.483	3.66	.551	3.24	.581	3.35	.444
	Secondary	3.46	.518	3.86	.468	3.51	.532	3.61	.403

Table 6 shows that there are apparent differences between the averages of the sample's estimates on the degree of readiness of government schools to deal with emergency situations and crises from their point of view according to their variables, and to determine the statistical significance levels for these differences, a multiple-contrast analysis test was used, as it was shown in Table 7.

**Table-7.** The results of the test of multiple variability analysis of the differences between the estimates of the sample individuals.

Variables	Domains	Sum of squares	Degrees of freedom	Average squares	P Value	Level of statistical significance
School gender	The discovery of early warning signals	0.504	2	0.252	1.029	0.462
	The domain of preparedness and prevention	4.628	2	2.314	8.765	0.000*
	Damage containment domain	0.984	2	0.492	1.523	0.319
Years of Experience	The discovery of early warning signals	6.016	2	3.008	12.278	0.000*
	The domain of preparedness and prevention	1.254	2	0.627	2.375	0.161
	Damage containment domain	1.164	2	0.582	1.802	0.284
Educational qualification	The discovery of early warning signals	0.669	1	0.669	2.731	0.120
	The domain of preparedness and prevention	3.289	1	3.289	12.458	0.000*
	Damage containment domain	0.683	1	0.683	2.115	0.179
School level	The discovery of early warning signals	3.092	1	3.092	12.620	0.000*
	The domain of preparedness and prevention	2.659	1	2.659	10.072	0.000*
	Damage containment domain	3.551	1	3.551	10.994	0.000*
Error	The discovery of early warning signals	78.155	319	0.245		
	The domain of preparedness and prevention	84.216	319	0.264		
	Damage containment domain	103.037	319	0.323		

Note: \* Statistically significant at the level of statistical significance ( $\alpha \leq 0.05$ )

Table 7 shows the absence of statistically significant differences at the level of statistical significance ( $\alpha \leq 0.05$ ) between the averages of the sample population estimates for the degree of readiness of public schools to deal with emergency situations and crises in all areas of the questionnaire due to the variable of the school gender, except for the domain of readiness and prevention. To determine the sources of these differences, a Scheffe test was used, as shown in Table 8.

**Table-8.** Results of the Scheffe test for the differences between the averages of the sample individuals' estimates on the domain of readiness and prevention according to the school gender variable.

Mixed	Female	Male	School gender		domain
3.63	3.77	3.86	Arithmetic average		Preparedness and prevention
*0.23	0.09		3.86	Male	
0.13			3.77	Female	
			3.63	Mixed	

Note: \*Statistically significant at the level of significance ( $\alpha \leq 0.05$ ).

Table 8 shows that there are statistically significant differences between the averages of the school gender estimates (males) on the one hand, and the average estimates of school gender (mixed) on the other hand, attributed to the gender of the school, in favor of estimates of school- gender (males). The absence of statistically significant differences at the level of statistical significance ( $\alpha \leq 0.05$ ) between the averages of the sample population estimates for the degree of readiness of government schools to deal with emergency situations and crises in all areas of the questionnaire due to the variable number of years of experience, except for the early detection signals domain. To determine the sources of these differences, a Scheffe test was used, as shown in Table 9.

**Table-9.** Results of the Scheffe test for the differences between the averages of the sample individuals' estimates on the domain of detecting early warning signs according to the variable number of years of experience.

More than 10 years	From 5 to 10 years	Less than 5 years	Years of Experience	
3.45	3.41	3.22	Arithmetic average	
*0.23	*0.19		3.22	Less than 5 years
0.04			3.41	From 5 to 10 years
			3.45	More than 10 years

Note: \*Statistically significant at the level of significance ( $\alpha \leq 0.05$ ).

Experience (less than 5 years) on the one hand, and average estimates of those with years of experience (5-10 years and more than 10 years) on the other hand, attributed to the variable of the number of years of experience, in favor of estimates of those with years of experience (10-5 years and more than 10 years). The researcher attributes this to the fact that managers, who have more than five years of managerial experience, have been exposed to experiences and crises they faced during their time as managers, instead of their participation, setting strategic

plans to face such crises, preparing a team of school workers and training them in the art of dealing with these crises, and their exposure to courses and workshops on the readiness of schools to provide early warning devices and contact with state institutions (public security, civil defense, hospitals), interacting with the members of the local community wisely, rationally and narratively makes it in the interest of protecting the educational institution (the school). This gives them the experience and the art of communicating with others when an emergency occurs.

The results are consistent with the results of the [Aldelmani \(2010\)](#) and differ with the results of the [Zoubi \(2014\)](#) and [Birkland \(2009\)](#).

There are no statistically significant differences at the level of statistical significance ( $\alpha \leq 0.05$ ) between the averages of the sample population estimates for the degree of readiness of government schools to deal with emergency situations and crises in all areas of the questionnaire due to the variable of the educational qualification, with the exception of the domain of preparedness and prevention, in favor of estimates of those with academic qualifications (graduate studies). The researcher attributes this to the fact that managers with long years of work who possess scientific degrees with scientific and human specializations interact with situations wisely and rationally. Because they were subjected to a study of many courses in the graduate studies programs, as they contributed to their learning to organize administrative work, and it enabled them to deal with the emerging emergency crises with rationality and how to deal with them. And employ the scientific method and address the hypotheses in a scientific analysis method based on dealing with situations or hypotheses for all aspects of the crisis, as they have taken all necessary measures to face those crises.

There are statistically significant differences at the level of statistical significance ( $\alpha \leq 0.05$ ) between the averages of the sample population estimates for the degree of readiness of public schools to deal with emergency situations and crises, in all areas of the questionnaire, it is attributed to the variable of the school level, in favor of the (secondary) school estimates. Also, a quadratic contrast analysis test was conducted for the differences between estimates of the sample individuals to the degree of the readiness of public schools to deal with emergency situations and crises on the areas of the questionnaire as a whole, according to the difference in the study variables, and the results were as shown in [Table 10](#).

**Table-10.** Results of the quadratic variance analysis test for the differences between estimates of the sample individuals for the degree of readiness of public schools to deal with emergency cases and crises on the areas of the questionnaire as a whole according to the study variables.

Variables	Sum of squares	Degrees of freedom	Average squares	Value of p	Level of statistical significance
School gender	0.394	2	0.197	1.071	0.451
Years of Experience	0.254	2	0.127	0.690	0.617
Educational qualification	0.206	1	0.206	1.120	0.425
School level	1.155	1	1.155	6.277	*0.000
Error	58.696	319	0.184		
Overall	4095.454	325			

[Table 10](#) shows that there are no statistically significant differences at the level of statistical significance ( $.050.05$ ) between the averages of the sample members' estimates of the degree of readiness of government schools to deal with emergencies and crises on the areas of the questionnaire as a whole due to the variables of the school's gender, years of experience, and educational qualification. However, there were statistically significant differences attributable to the variable of the school level, in favor of the (secondary) school estimates.

The study attributes this to the fact that high schools have all the computer equipment and early warning devices to quickly detect the occurrence of crises, and the results of this question are consistent with the results of the [Adams and Kristonis \(2006\)](#) study, and [Hassan and Dabbous \(2011\)](#) study, and differ with the results of the [Wilkins \(1998\)](#) study.

## 5. Study Recommendations

After presenting and discussing the study results, the researcher recommends the following recommendations:

- The need to train managers on how to build strategic plans for the crisis, deal with incoming rumors and assess the reality of the crisis due to the flow of situational information within the available resources.
- The necessity of training managers on how to deal with the media, marketing it, and directing it towards underestimating the crisis, weakening all expectations and providing the framework that establishes the thinking and actions of individuals on the ground.
- The need to persuade managers to assume administrative responsibility and not avoid direct dealing with developments and to establish a basic rule for determining damages and what is consistent with the expectations of society.
- The necessity of standing on the emergency crises that occurred previously and learning from its mistakes and similar crises where it happened in order to properly prepare for efficient future plans.
- The necessity of training the employees in the institution and providing them with the skills related to crisis management and the characteristics of appropriate human behavior based on core values to rebuild the required confidence and make the critical decision.
- Conducting more studies on the degree of readiness of public schools to deal with emergencies and crises in other educational areas, and in other educational institutions such as universities.

## References

- Abu Kaef, A. (2002). *Strategic management and crisis management* (1st ed.). Alexandria: New University Publishing House.
- Adams, C., & Kristonis, W. (2006). An analysis of secondary schools 'crisis management preparedness. *National Journal for Publishing and Mentoring Doctoral Students Research*, 1(1), 20.

- Ahmed, A. (2002). *Management of educational crises in schools causes and treatment*. Cairo: Arab Thought House.
- Al-Delmani, Z. (2010). *School crisis management in public education schools in Kuwait*. Unpublished Master Thesis, Kuwait University.
- AL-hlo, G. (2010). School crises in government secondary schools in the North West bank / Palestine. *Departments, An-Najah University Journal of Research (Humanities)*, 24(1), 223-262.
- Al-Jahani, A. (2010). *Methods of decision-making in the management of school crises from the point of view of the principals of the Province of Yanbu*. Unpublished Master Thesis King Abdulaziz University.
- Al-Yahyoi, S. (2006). Crisis management in the middle schools for girls in Madinah. *Journal of Educational Sciences and Islamic Studies*, 6(1), 247-380.
- Aldelmani, Z. (2010). *School crisis management in public education schools in Kuwait*. Unpublished Master Thesis, Kuwait University.
- Alhazaima, W. (2004). *Leadership and crisis management*. Irbid: The World of Modern Books.
- Baalbaki, M. (1980). *Near resource*. Lebanon: Dar El-Elm for Millions.
- Birkland, T. A. (2009). Disasters, lessons learned, and fantasy documents. *Journal of Contingencies and Crisis Management*, 17(3), 146-156. Available at: <https://doi.org/10.1111/j.1468-5973.2009.00575.x>.
- Boin, A., & McConnell, A. (2007). Preparing for critical infrastructure breakdowns: The limits of crisis management and the need for resilience. *Journal of Contingencies and Crisis management*, 15(1), 50-59. Available at: <https://doi.org/10.1111/j.1468-5973.2007.00504.x>.
- Falkheimer, J., & Heide, M. (2006). Multicultural crisis communication: Towards a social constructionist perspective. *Journal of Contingencies and Crisis Management*, 14(4), 180-189. Available at: <https://doi.org/10.1111/j.1468-5973.2006.00494.x>.
- Faraj, S. (2011). The practice of the directors of general education schools for the skills of crisis management school from the point of view of the principals and teachers in the city of Mecca. *Educational Journal, Faculty of Education, Sohag University*(29), 428-355.
- Gentilucci, J. L. (2007). Managing communication during a school crisis: A case study. *Journal of School Public Relations*, 28(4), 318-330. Available at: <https://doi.org/10.3138/jspr.28.4.318>.
- Hashem, G. (1998). *Elements of disaster preparedness*. Paper presented at the 83 Annual Conference on Crisis and Disaster Management.
- Hassan, H., & Dabbous, M. (2011). Educational crises in secondary public schools in the North of Palestine and how they are managed from the viewpoints of managers. *Najah University Journal of Research (Humanities)*, 25(5), 1159- 1186.
- Jad Allah, M. (2008). *Crisis management*. Amman: Osama House for Publishing and Distribution.
- Kadri, A. (2008). *Crisis communication and crisis management*. Cairo: New Community House.
- Khudairi, M. (2003). *Crisis management: Knowledge of the possession of power in the most vulnerable moments*. Cairo: Arab Nile Group.
- Kovoor, S. (1991). *Crisis preparation in technical organizations: A study using a multidimensional approach*. Unpublished Doctoral Dissertation, University of Southern California, Los Angeles, CA.
- Lukaszewski, J. (1999). Seven dimensions of crisis communication management: A strategic analysis and planning model. *Ragan's Communications Journal*.
- Maher, A. (2006). *Crisis management*. Alexandria, Egypt: University House.
- Odah, A. (2007). *Measurement and evaluation in the teaching process*. Jordan: Dar Al Amal.
- Tritz, T. (2001). Crisis management strategy utilized by the United States department of defense following the terrorist attack on America: A case study (pp. 83-94). USA: Department of Communication Studies.
- Wilkins, J. (1998). An analysis of program crisis management leading towards the development of a model for secondary school. *DAI*, 8(58), 32-48.
- Zoubi, M. (2014). The degree of availability of the elements of crisis management in the directorates of education in the province of Irbid from the point of view of the heads of departments. *Journal of Studies - Educational Sciences, University of Jordan*, 41(1), 379-397.