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## Professional Requirements for Secondary School Principals in The Light Of 21st Century Competencies

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### Abstract

The research aimed to identifying the professional requirements of secondary school principals in the light of the competencies of the 21st century. The researcher used the descriptive method using the survey method because of its suitability to the nature of the research. The research sample was deliberately selected from technical instructors and secondary school teachers in some general education schools in the State of Kuwait. The sample reached (94) individuals. The researcher concluded that the professional requirements of high school principals must keep pace with the developments of the educational process in light of the competencies of the twenty-first century, which are digital-age literacy skills, Inventive thinking skills, effective communication, and high productivity skills.

**Keywords:** Professional Requirements, Secondary School Principals, 21st Century Competencies.

### Introduction

The process of renewal and development in various fields is a basic issue, but rather a necessity required by transformations and developments in societies. Each development aims to achieve effectiveness and strive for the best in various areas of life. The education sector is first of this development as it constitutes the most prominent preoccupations of nations, because it is a field related to building and preparing the individual for life. It is considered the inexhaustible revolution and the basic pillar of every effective and sound foundation for building a knowledge society that has become a feature of the current era, so researchers in the field of education during recent years have attached great importance to the development of the human factor in the educational process.

There is consensus among policymakers around the world that education is one of the most productive investments through which countries can empower their individuals and societies, and achieve lasting security and prosperity, however, some recent changes have caused some obstacles and raised urgent questions about the skills, competencies, and knowledge required to reap the benefits of education In today's and tomorrow's world, and the attendant social and economic change (Liu et al., 2016).

The primary goal of education is not only that students be able to do well in schools, but also extends to helping them cope with the life they live outside of school as they should be. The 21st Century Competency Frameworks are designed to build capacities that can benefit students during the remainder of their lives. Developing these competencies requires students to apply knowledge and skills to solving real-life problems rather than simply acquiring knowledge on a specific subject. In contrast to subject-based knowledge, interdisciplinary competencies are more applicable to real-world situations. Curriculum design and choice of educational materials should be considered from both perspectives: the specialist and the interdisciplinary perspective. Effective interdisciplinary programs should seek the specialized and interdisciplinary expertise of students in the curriculum. Interdisciplinary studies can also take advantage of employment opportunities with partners who are able to provide learning experiences and support them to engage youth in society on a larger scale. Therefore, in educational practices for the competencies of the twenty-first century, the establishment of multidisciplinary axes has become a strategy that has been widely adopted in all entities (Abdullah, 2000).



Interest in the skills of the twenty-first century did not stop when identifying these skills. Rather, it went beyond analyzing the curricula to determine the extent to which they included these skills. In this context, studies evaluated the curricula to see how they included the skills of the twenty-first century and suggested ways to do so, including the study of Dani et al., (2013) which used the conceptual frameworks provided by the partnership for the twenty-first century to prepare a tool for analyzing science standards and curricula to determine their suitability with the basic skills of the twenty-first century, and this tool was applied on science standards in two states from the United States (Ohio and New York) and two Arab countries (Lebanon Qatar), as well as a study of Blank et al. (2001) which analyzed the national science standards and the standards of some states to determine the extent to which they included these skills. Moreover, some projects and studies concerned with integrating the skills of the twenty-first century in the science curricula, including the study of Hiong and Osman (2013) which suggested a conceptual framework to integrate 21st-century skills in biology education in Malaysia, and the study suggested that with a multidisciplinary approach that includes both biology, technology, engineering, and mathematics STEM 21st-century skills can be included in existing biology curricula, and other projects concerned with teaching these skills for students and their evaluation, including the ATC21S Assessment and Teaching Skills Project which proposes ways to evaluate 21st-century skills and encourages teaching methods to develop these skills in the classroom (Assessment & Teaching of 21 Century skills, 2013).

In spite of this interest, the results of these studies have agreed that the inclusion of the skills of the twentieth century in the curricula is weak and not at the required level. The report of the UNESCO Institute for Statistics showed that the application and use of information and communication technology in Education in Arab countries often comes late, but young people and children in many countries in the Arab world are learning how to use different information and communication technology tools informally outside the school system, and in a comparative study of UNESCO to compare the integration of information and Galleries in the curriculum in several Arab countries, including Egypt. It was found that the basic education curricula in Egypt lack specific goals or decisions covering basic computer skills, this is despite many children in Egypt learning informally how to use information and communication technology (UNESCO Institute) The 21st Century Learning Partnership in the United States has researched various aspects, including curricula, teaching, the educational environment, and educational technologies, and has published its findings. This work has benefited teachers, policy makers, parents, society, and even students. The Learning Partnership for the Twenty-first Century has also provided a number of research reports that may serve as study materials for the competencies of the twenty-first century, to help teachers and those interested in education in understanding the interaction between the competencies of the twenty-first century and school curricula. The Education Partnership for the Twenty-first Century published a research report He examined the relationship between the Common Core State Standards and the competencies of the twenty-first century and explained that mastery of the basic academic content, i.e. reading, writing, arithmetic, critical thinking, problem solving, cooperation, communication and Creativity and innovation, and the components of frameworks and competencies of the twentieth-century atheist, was included in the curriculum as prerequisites for all students not only as tough standards are limited to the elite (Abdullah, 2000).

### **The 21st Century Skills:**

The field of education abounds with a number of diverse conceptual frameworks for the skills of the twenty-first century, which have been prepared by various parties, including the Educational Laboratory for the Central Northern Territory (OECD 2), the Partnership for the Skills of the Twenty-first Century P21, and the American Association of Colleges and Universities.

The North Central Regional Education Laboratory (Metiri Group & NCREL, 2003) has reached 21st-century skills through a set of processes that included a review of previous literature in this field, a review of research results that analyzed the characteristics of the net generation and review of reports that addressed the characteristics of the workforce required in The twenty-first century, as well as an opinion poll of educators, and according to its findings, the skills of the twenty-first century are divided into four main groups:



1. Digital Age Literacy skills: These are skills that are necessary for life and work in the knowledge society and are the ability to use digital technology and communication tools, networks to access, manage, evaluate and produce information, including: basic culture - scientific culture - economic culture - technology optics and informatics - understanding Multiple Cultures - Cosmic Consciousness.
2. Inventive Thinking skills, which include: ability to adapt and manage complexity - self-direction - curiosity - creativity - risk tolerance - higher thinking skills and sound thinking.
3. Effective Communication skills, which include: team work skills - personal skills - personal, social, and civil responsibility - interactive communication.
4. High Productivity skills, which include: prioritization skills - planning and management to achieve results - effective use of technological tools in the real world to communicate, collaborate, solve problems, and complete tasks.

The studies ended up emphasizing the importance of including the skills of the twenty-first century in the educational process, such as the study of Nawal (2014) which reached a suggested framework consisting of three groups of skills, each with basic and subsidiary skills, as well as procedural expressions that express the expected performance of learners, and the study also concluded that there is a clear decline in dealing with these skills in science books, and accordingly, the study was prepared Two matrices for the extent and succession of these skills for each of the elementary and middle levels of basic education, and the study of the Partnership Foundation for the skills of the twenty-first century (The Partnership for 21st Century Skills, 2009). It found that teachers should develop the skills of the twenty-first century: integrate the skills of the twenty-first century into the standards of basic school subjects in the places that suit them, build standards that emphasize work within every field of study, integrate technology, culture, and tools for the twenty-first century where appropriate in Standards make standards useful and accessible. The study emphasized that for the twenty-first century standards to be effective they must reflect realistic practices in today's world, and a study of Dede (2010) which aimed at comparing the frameworks of the twenty-first century skills and analyzing the 21st-century skills framework for the North Central Regional Educational NCREL - Laboratory and the Organization for Economic Development - OECD framework and the partnership framework for 21st-century skills (The Partnership for 21st Century Skills, 2006).

As well as the framework of the American Association of Colleges and Universities, and the study concluded that although most of the axes on which these frameworks are based are common, the framework prepared by the partnership for the skills of the twenty-first century is the most organized and detailed, and it is the framework that focused on how to integrate these Frameworks in the curriculum, and in a related context the study of Stevens (2012) aimed at describe the capabilities necessary for the capabilities of the twenty-first century and its relationship to the challenges of the century, the study concluded that if we are to effectively confront the challenges of the twenty-first century, the next generation must possess the skills of critical thinking, total atonement, scientific reasoning, innovation, and analysis.

To determine the extent to which curricula frameworks include the skills of the twenty-first century, a study of Joke and Natalie (2012) aimed at compare the frameworks of international curricula in terms of including them for the competencies of the twenty-first century, the frameworks were compared in the light of: philosophy and goals, its definition of the skills of the twenty-first century, and the strategies proposed to implement and evaluate these skills in educational practices, and the results have shown that there is a great consistency between the frameworks The curricula are the subject of comparison and the skills of the twenty-first century, but the practices for any of them are still far from being implemented, and the study of Ibrahim (2016) Where it ended up clarifying the justifications for caring for the teacher's professional competencies, and the professional qualifications for the twenty-first century teacher, how the competencies of the twenty-first century teacher relate to his roles, fields of professional competencies for the twenty-first century teacher, and the location of educational institutions for teacher preparation and development .

### **The research problem:**

Knowledge has become the most important factor in economic development, as the pattern of the economy has changed and has become based on knowledge through processing and increasing its value, the ability of knowledge products to penetrate the boundaries of geographical distances, and increasing the competitive advantages of knowledge as represented in increasing technical innovations, which led to an increased interest in intellectual capital which is represented by the ideas and techniques we possess and the knowledge stock and its investment represents the most important challenge facing societies (Houghton, & Sheehan, 2000).

The educational system in the different types of education is an integrated system, and this is the primary task of a school principal in managing the school and its study programs and subjecting them to achieving these goals, and the administrative body and its representatives and assistants include it, the director deals with teachers and students inside the school, and with members of society External, such as parents of students and social institutions outside the school, and the director is the link between the educational system and the educational administration and the school, and has different roles in the school, as it guides, directs and communicates information, issues instructions, and takes care of The students, and the teachers sponsor, but the competition between educational institutions in the context of the race to achieve the quality of education imposed on the school administration severe difficulties that may contribute to reducing its accomplishments and their low participation in achieving educational goals, therefore it is necessary for them to develop from the performance of its leader and research in its professional development in order to keep pace Requirements for the twenty-first century, and to address this problem, the study tries to answer the following main question: What are the professional requirements for high school principals in the light of the competencies of the twenty-first century?

### **The Research Purpose:**

The research aimed to identify the professional requirements of high school principals in the light of the competencies of the twenty-first century.

### **The Research Terminology:**

The requirement: The name of the effect of the person who required an order or work that is required to be accomplished, i.e. an essential and indispensable thing to judge the mechanism of work in a system, meaning the need to make this work in this system distinguished with specific characteristics to achieve the desired goals of this system.

It means: "The most important characteristics and criteria that are required for secondary school administrators to be distinguished, and they appear in the form of indicators in the performance of their work to achieve the desired educational reform".

Skills of the twenty-first century: As defined by the partnership for the skills of the twenty-first century P21 are skills that include: problem solving, individual creativity, cooperation, innovation, and use of technology tools, adaptability, and ability to solve problems (The Partnership for 21st Century Skills, 2006).

procedurally: A set of skills necessary to ensure that learners are ready to learn, innovate, live and work, make optimal use of information, media, and technology in the twenty-first century.

### **Procedures:**

### **The Research Methodology:**

The researcher used the descriptive method using the survey method, due to its relevance to the nature of the research.



**Society and Sample:**

The research sample was chosen intentionally by technical directors and secondary school teachers in some general education schools in the governorates of the State of Kuwait, for a number of (124) individuals, as the survey sample reached (30) individuals with a percentage of (24.19%), and was applied in the period from Tuesday 3/9/2018 until Tuesday 18/9/2018, and the basic sample reached (94) individuals with a percentage of (75.80%) and was applied in the period from Thursday, 20/9/2018 until Saturday corresponding to 10/20/2018, This is shown in Table (1).

**Table 1**

**Total population characterization of the research sample n = 124**

Group	core sample		statement exploratory sample	
	Percentage	Number	Percentage	Number
Secondary technician prompt	%48.06	40	%33.33	10
High school teacher	%51.92	54	%66.66	20
Total	%100	94	%100	30

**The Data Methods & Tools:**

The researcher has built a questionnaire for the professional requirements of high school principals in the light of the competencies of the twenty-first century to seek a sample opinion on the subject of the research.

**Table 2**

**The Themes of The Questionnaire**

M	axis
1	Skills of the digital age
2	Creative thinking skills
3	effective communication skills
4	high productivity skill

It is clear from Table (2) the axes of the questionnaire, and these axes were presented to a number (5) of the expert experts, taking into consideration that their experience in the field should not be less than (10 years) with the aim of identifying the suitability of the axes for the goal for which it was set, Agree on the existence or absence of the axis, agree to formulate the axis or amend its formulation.

**The Results:**

**Table 3**

**Frequencies, percentages, and coefficient Chi-squared for first and special axis expressions with the skills of the digital age**

M	disagree		Neutral		agree		Chi-squared
	%	R	%	R	%	R	
1	12.5	24	10.57	11	66.34	69	*55.9
2	3.84	13	19.23	20	68.26	71	*85.2
3	6.73	7	3.55	4	89.42	93	*65.1
4	6.25	4	6.73	7	86.53	90	*19.2

\*The table value of Chi at the level of significance 0.05 = 0.313

It is clear from Table (3) that the calculated value of Chi ranges between (3.84 and 89.42), and that there are statistically significant differences in all axis statements.

**Table (4)**

**Frequencies, percentages, and coefficient ka2 for the second and special axis terms with creative thinking skills**

M	disagree		Neutral		agree		Chi-squared
	%	R	%	R	%	R	
1	10.57	7	2.88	23	73.07	94	*42.9
2	8.65	6	6.73	15	76.9	91	*51.5
3	7.69	0	3.19	3	90.38	95	*115.4
4	11.53	11	5.76	7	87.5	85	*13.1
5	6.73	15	4.25	4	91.34	100	*106.3
6	5.76	12	4.40	6	81.73	86	*104.7

\*The tabular value of Chi at the level of significance 0.05 = 0.313

It is clear from Table (4) that the calculated value of Chi ranges between (3.19 and 87.5), and that there are statistically significant differences in all terms of the axis .



**Table (5)**

**Frequencies, percentages, and coefficient ka2 for the third and special axis phrases with effective communication skills**

M	disagree		Neutral		agree		Chi-squared
	%	R	%	R	%	R	
1	6.8	5	55.11	23	86.15	76	*98.9
2	11.53	9	3.84	4	90.75	90	*106.3
3	14.42	8	5.76	6	80	86	*44.6
4	5.76	6	6.70	7	97.5	92	*210.4

\*The table value of Chi at the level of significance 0.05 = 0.313

It is clear from Table (5) that the calculated value of Chi ranges between (6.8, 97.5.4), and that there are statistically significant differences in all the axis phrases.

**Table (6)**

**Frequencies, percentages, and coefficient Chi for the fourth and special axis expressions with high productivity skills**

M	disagree		Neutral		agree		Chi-squared
	%	R	%	R	%	R	
1	9.2	6	60	67	92	88	*88.9
2	12.60	7	5.29	9	98	90	*201.3
3	15.62	8	7.76	5	65	55	*65.6
4	6.60	9	30	8	58	68	*120.4

\*The table value of Chi at the level of significance 0.05 = 0.313

It is clear from Table (6) that the calculated value of Ca2 ranges between (7.76, 98), and that there are statistically significant differences in all axis statements.

### The Results Discussion:

It is clear from Table (3) for the first-axis phrases related to the skills of the digital age that the percentage of response to the phrases with the answer (totally agree) ranged between (89.42%, 66.34%), and the percentage of response to the phrases with the answer (I agree to some extent) ranged between ( 19.23%, 3.55%), that the percentage of response to phrases answered (I do not agree) ranged between (12.50%, 3.84%).

It is also clear from Table (3) that there are statistically significant differences in all statements of the first axis in favor of the higher response, where the calculated value of Chi ranged between (85.20 and 19.20), which is greater than the value of chi table (0.313) at a significant level (0.05) which It indicates that all axis statements are a function where the response to the phrases came with an answer (I completely agree) to phrase No. (3) and No. (4), which is the ability to use networks to access, manage, evaluate and produce information,

accommodating basic culture - scientific culture - economic culture - technology optics Informatics - Understanding Multiple Cultures - Cosmic Consciousness, Response For the phrases by answering (I agree to some extent) for the phrase (2), the ability to use communication tools, and responding to the phrases by answering (I do not agree) for the phrases (1) the ability to use digital technology. As shown in Table (3) of the second axis phrases related to creative thinking skills:

That the percentage of response to the phrases with the answer (I totally agree) ranged between (91.34%, 73.07%), that the percentage of response to the phrases with the answer (I agree to some extent) ranged between (6.73%, 1.22%), and that the percentage of response to the phrases with the answer (I do not agree) ranged between (11.53% and 5.76 %)

It is also clear from Table No. (4) that there are statistically significant differences in all statements of the second axis in favor of the higher response, where the calculated value of chi ranged between (115.4, 13.1), and it is greater than the value of chi Table (0.313) at a significant level (0.05) Which indicates that all axis statements are a function where the response to the phrases came with an answer (I completely agree) for each of the phrases numbers (5, 3) carry risks, curiosity.

This indicates the importance of integrating the competencies of the twenty-first century in the professional development of school principals in the different academic stages because of its impact on enriching the skills of the school principal and thus this is reflected in the educational process as a whole.

### **The Conclusions:**

The researcher concluded that the professional requirements of high school principals must keep pace with the developments of the educational process in light of the competencies of the twenty-first century, which are:

1. Digital Age Literacy skills: These are skills that are necessary for life and work in the knowledge society and are the ability to use digital technology and communication tools, networks to access, manage, evaluate and produce information, including: basic culture - scientific culture - economic culture - technology optics and information - understanding Multiple Cultures - Cosmic Consciousness.
2. Inventive Thinking skills, which include: ability to adapt and manage complexity - self-direction - curiosity - creativity - risk tolerance - higher thinking skills and sound thinking.
3. Effective Communication skills, which include: team work skills - personal skills - personal, social and civil responsibility - interactive communication.
4. High Productivity skills, which include: prioritization skills - planning and management to achieve results - effective use of technological tools in the real world to communicate, collaborate, solve problems and complete tasks.

### **The Recommendations**

1. The necessity of keeping pace with the professional requirements of high school principals for the competencies of the twenty-first century.
2. The continuous development of secondary school teachers' performance in light of the experiences of developed countries.





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