The Teacher's Roles in Light of Knowledge Economy from the Perspective of the Educational Supervisors' in Palestine

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Abstract
This study aims at identifying the teacher's roles in light of knowledge economy from the perspective of the educational supervisors in Palestine. To achieve the study's objective, a questionnaire consisted of 35 items was developed and applied on 50 male and female supervisors in the Directorate of Education in governorate of Ramallah, al-Bireh and UNRWA in addition an interview and a checklist of the teacher's roles in light of knowledge economy were prepared and applied on 9 supervisors. Results showed the teacher's roles were moderate and there were no differences in the means of the teacher's roles attributed to the years of experience and scientific qualification variables. But there were differences in the means of the teacher's roles attributed to the schools being supervised variable in favor of the UNRWA school. The results of the interview and checklist of the teacher's roles revealed that 84% of the teachers need training on the innovative roles of the teacher in the era of knowledge economy and the mechanism of assessment of the teacher's roles still focus on the teacher's traditional roles. The study concluded that teachers need to keep pace with the requirements of the twenty-first century "The era of economy and knowledge," with regard to scientific mastery and use of technology and creativity, excellence, critical thinking and scientific research through receiving some training on these roles, and the need to develop the evaluation mechanism among supervisors.
Keywords: Teacher's roles, knowledge economy, educational supervisors, Palestine

1. Introduction

The transition to knowledge economy is an international phenomena seen everywhere these days because, to own knowledge, economy means the ability to innovate and create intellectual products which the market knows nothing about it. It is an open economy and therefore who own knowledge is the superior (Salma, 2009 & Brinkley, 2014). Additionally, knowledge economy sees creativity as the foundation stone where attention is given to the thought rather than raw materials and human effort (Connell, 2015).

The importance of knowledge economy stemmed from its role in cognitive knowledge and the advanced technology which is generated and produced rapidly in different fields (Khalaf, 2007). Accordingly, it helps in spreading, employing and producing knowledge without limitation. Moreover, it achieves electronic exchange and makes a change in the old jobs in addition it helps the educational institutions in development and creativity (Hashimi & Azawi, 2010; Safi et al., 2010). It is the capital that is capable to create, own and employ knowledge. Furthermore, it helps in having the ability of linking, analyzing, developing, make and designing.

Dives (2002) and La rue (2005) pointed to perceptions about education in the 21 century that starts with the children till advanced age and they suggest beneficial strategies as: create learning societies, identifying the public school's major goals, building a learning model linked with internet based on different forms of cooperation within high education institutions and others. As a result, there is a necessity to make a change in the curricula elements and the teacher roles in Arab World, develop his image and raise the level of this profession in order to develop the Arab education in general and the Palestinian's in particularﻭ especially in the era of knowledge economy.

The teacher in the era of knowledge economy should have two main skills: the specific and accurate scientific specialization and the psychological and educational rehabilitation of teaching and supervising the students (Arab Human Development Report, 2003).

According to Bonal and Ramba (2003) the role of the teacher in the era of knowledge economy could be summarized by two things: to make sure that the student acquires the knowledge which means developing the students' abilities to enable him to get involved in different patterns of knowledge and this is possible if the great transition of knowledge towards economy performance is represented by laws for teaching while the other one is the necessity to have the teacher as the effect factor in the teaching and learning process, which means that the teacher has to develop rapidly the patterns of knowledge that he specialized in and to be qualified for teaching them as well.

Al-hashmi and Azawi (2009) and Fitzpatrick (2014) illustrated that the modern roles of the teacher have

to cope up with development including the teacher's role as a facilitator , expert in his career, responsible for system and students' achievement, psychological guide , a model, a member in the local society, designer of the educational process , a user for technology, motivator to the interaction among the students and developer of self-development.

Some of the studies that addressed this issue were as follows: Al-qarni (2009) which concluded that the most important educational transitions were ordered ascending as follows: transition towards e-school (89.2%), learning for oneself and living with others(88.8%), transitions towards producing and creating knowledge (88.6%), continuous learning (87.6%), transition towards society to build society of knowledge (87.6%), learning for work (86.6%) and administrative empowerment (83%). The study of Shatnawi and Olimat (2008) showed that extent of the education diploma programs achievement of the educational competencies from the perspective education diploma students was high. And Qleimat (2008) assured the education's field need to 68 sub-competencies for the teachers: personal and specialization, planning &assessment, information and communications. And the study's results revealed the efficiency of a program based knowledge economy in developing the competencies of Arabic teacher of the secondary stage. Shadah and Omari (2014), Olimat (2013) Hilat and Al-Qdah (2008) and Kang (2003) showed that the teacher's roles were high and there were differences attributed to the specializations in favor of the scientific ones and the scientific qualification variable in favor of high studies. According to Shahada and Omari (2014) there were no differences in the years of experience and this study does not agree with Gutaan's study (2007) which showed the degree of the teachers' application of the cognitive economy skills was moderate while the studies of Batarsah (2005) and Bonal and Rambla (2003) revealed that the teachers' degree of applying cognitive knowledge economy was low.

The studies of Batarsah (2005) and Eiadat (2005) showed lack of significant differences in the degree of the teachers' performance of the skills attributed to the scientific qualification and years of experience in teaching.

Holowetzki's (2002) study aimed to know the impact of cultural factors in the economy and knowledge management, the study used the content analysis method, and by reviewing the educational literature and related studies, on the subject of knowledge management conducted during the period (1998-2002) in the United States. The study found that there are six key factors in all institutions which play an active role in knowledge management posing frames for the success or failure of these institutions, according to deal with these six factors; namely: information systems, the structure of the organization, systems and bonus, compensation, operations, personal and leadership, and individuals play a crucial role in the success of the enterprise and achieve its goals.

Alkadimat's (2008) study aimed to test the effectiveness of a training program, based on a knowledge economy in the efficiencies of the Arabic language teachers in the secondary stage development. The study adopted two approaches; descriptive and quasi-experimental, and the study sample consisted of 187 teachers, and using a note card and self assessment card. The results of the study pointed to the need for educational field to (68) the adequacy of a subsidiary, for secondary school teachers majoring in Arabic: personal and specialized skills, and competencies of planning and evaluation, information and communication, as the results showed the effectiveness of the program based on the knowledge economy in the development of Arabic language teachers and her teachers at the secondary level.

The studies of Shahada and Omari (2014) and Qdaha (2008) are in agreement with Fitzpatrick's study (2014), and there were significant differences attributed to gender variable in favor of the females but they were in disagreement with the study of Eiadat (2005) which showed lack of differences attributed to scientific qualification and years of experience variables.

During the revision the educational literature and the previous studies, the researchers, according to their knowledge, noticed lack of studies investigating the degree of the teachers' roles in light of knowledge economy from the perspective of the supervisors in Palestine in particular and the Arab world in general. The current study gets benefit of these previous studies in developing the tool of the study and choosing the population and the sample of the study.

1.1 Problem of the Study

The teacher is one of the significant components of the educational system, and there is a necessity to reconsider his roles in the era of knowledge economy whether it was in Arab world or in Palestine, especially the international Bank's report about education (2008) pointed to some gaps between what the educational systems in Arab World have achieved and between what the area needs to achieve its current and future development goals. Therefore, the teacher's practice of the new roles in light of attitudes of knowledge economy is considered one of the basic elements that help the education process to succeed. Accordingly, this study came to identify the teacher's roles in light of the knowledge economy from the supervisors' perspective.

1.2 Questions of the Study

The main question is:

What are the roles of the teacher in light of knowledge economy from the perspective of the educational supervisors in Palestine?

The sub-questions are:

1. What is the average of the teacher's roles in light of the knowledge economy from the perspective of the educational supervisors in Palestine?

2. Do the respondents' responses vary according to the variables (years of experience, scientific qualification, school which are supervised) at $(\alpha \leq 0.05)$?

3. What are the current roles of the teacher? What are the roles he needs from the perspective of the educational supervisors in Palestine?

1.3 Objectives of the Study

This study aims at identifying the following gaols:

    1- The teacher's roles in light of the knowledge economy from the perspective of the educational supervisors in Palestine.

    2- The effect of the following variables (years of experience, scientific qualification, schools being supervised) in the identifying the teacher's roles.

    3- The teacher's current roles and the roles that he needs training in from the supervisors' perspective.

1.4 Significance of the Study

    − The importance of the subject which the study addressed in Palestine seeks to establish knowledge economy especially in the field of education including creative people who are capable to solve problems.

    − Prepare and present an appropriate description to a set of teacher's roles in light of knowledge economy which helps in raising the teacher's competency and improving his teaching level.

    − This study could be beneficial to Ministry of Education in terms of roles that the teacher has and other roles he needs to know in light of knowledge economy and constructing suitable programs of developing and training the teachers on these roles.

1.5 Limitations of the Study

The study is limited to all supervisors in the education Directorate in Ramallah and al-Bireh Governorate (Public & UNRWA) in the second semester for the academic year2015/2016.

1.6 Methods and Procedures

The analytic and descriptive approach was used for its appropriateness for this type of studies.

1.7 Population and Sample of the Study

The population includes all the educational supervisors operating in the Education and UNRWA offices in Ramallah and al-Bireh Governorates in Palestine consists of 50 supervisors. The sample's views were towards the teacher's roles in light of knowledge economy and its relation with demographic changes was recorded. Table (1) illustrates the population of the study.

Table 1. distribution of the sample of the study

Variable	Category	N	Prop
Years of experience	1-less than 6	10	%20
	6-less than 11	13	%26
	11-less than 16	9	%18
	More than 16	18	%36
Scientific qualification	Bachelor	19	%38
	Ma and higher	31	%62
Schools being supervised	Public &private	30	%60
		10	%20
		10	%20
Total		50	%100

1.8 Instrument of the Study

    First: Questionnaire

     After reviewing instruments used in the studies of Mostafa&Kilani,2011;Abu Neir & others,2011;

Batarsah,2005; Eidata,2005), and the related literature to the study's subject ,objectives and hypotheses a questionnaire was developed to identify the teacher's roles in light of knowledge economy from the perspective of the educational supervisors in Palestine. The final draft of the questionnaire consisted of two parts; the first covered personal information about the respondents while the second part consisted of 35 items that measure the roles of the teachers in the light of knowledge economy from the perspective of the educational supervisors in Palestine and they were distributed into four fields as follows:

Table (2): distribution of the study's items according to its dimensions

Field	ITEMS	N OF ITEMS
Teaching implementation	11-1	11
Teaching &planning	18-12	7
Self development	27-19	9
Students learning	35-28	8
Total		35

Responses to each item were measured along a 5-point Likert scale (3 = very high degree; 2= very high;1= moderate;4= low degree;5= very low degree.

To check the tool's validity, it was presented to a set of arbitrators who are specialized in education and psychology who agreed on the readability and the validity of the tool. Concerning the tool's reliability, the internal consistency of the tool's items was examined through applying Cronbach Alpha on the total sample and the reliability value was (0.89) which is considered a high degree.

Second: Interview

To check the tool's validity, it was presented to a set of arbitrators whose views and suggestions were taken into account. And regarding the tool's reliability, it was checked through two ways:

1) Reliability over time: an interview with the teacher was done twice within two weeks and analyzed using Cooper (0.89).
2) Reliability across persons: the researchers make an interview with the teacher and analyzed it. Results were compared and agreement proportion were concluded using Cooper as it is cited in (Gaber2002:69) as follows:

agreement ratio=n of agreement/n of agreement +n of disagreementx100%. The agreement ratio was (0.86) which is considered appropriate for the sake of the study.

Third: a checklist of the roles which the teacher has to have in the era of knowledge economy.

To check the tool's validity, it was presented to a set of arbitrators whose views and suggestions were taken into account. The tool's reliability was checked by applying Cronbach Alpha on the sample and the reliability value was (0.80) which was considered a high degree.

1.9 Statistical Treatment

The descriptive statistics was used to calculate proportions, means and standard deviation test, One-Way ANOVA and Scheffe were used. Additionally, Cronbach Alpha coefficient was used to check the tool's reliability through SPSS and the following table illustrates the criteria used to judge the degree of the teachers' practice of knowledge economy concepts from the supervisors' perspective in Palestine.

Table (3): judgment criteria on the degree of the teachers' practice of knowledge economy concepts from the supervisors' perspective in Palestine.

Degree	Very low	Low	Moderate	high	Very high
Moderate	1,80-1	2,61-1,81	3,41-2,62	4,21-3,42	5 -4,22

2. Results and Discussion

First: results related to the following question: "What is the average of the teacher's roles in light of knowledge economy from the perspective of the educational supervisors in Palestine?

To identify the teacher's roles in light of knowledge from the supervisors' perspective, the means and standard deviations were calculated as it is illustrated in table (4):

Table (4): the means and standard deviations of the teacher's roles in light of knowledge from the supervisors' perspective

n	Field	N of items	Mean	Std	Degree
-1	Teaching implementation	11	3.25	.640	Moderate
-2	Planning &teaching	7	3.22	0.669	Moderate
-3	Self-development	9	3.11	0.769	Moderate
-4	Students learning	8	3.19	0.665	Moderate
	The tool as a whole	35	3.17	0.680	Moderate

Table (4) showed that the mean of the teacher's roles in light of knowledge economy from the perspective of the supervisors was moderate and most of them were in the teaching implementation field which got the highest degrees while the other fields were respectively as follows: planning & teaching, students learning and self development. This results is in a agreement with the study of Gotan (2007) but it disagrees with the following studies: Shahada and Omari,2014; Oleimat,2013; Hilat and Gotah, 2008; Kang, 2003 and Shatnawi and Olimat, 2008 which showed the teachers 'roles were high while they were low in the studies of Batarsah (2005) and Bonal and Rambla (2003).

Regarding the other fields, the means and standard deviations of the most important roles of the teacher in light of knowledge economy from the perspective of the supervisors were moderate as follows:

-   Teaching implementation field:

The items which gained the highest degree were (4): "shows respect and care to all the students with a mean (3.60) and standard deviation (0.728) and item(1): "communicate with his students to facilitate their learning" with a mean (3.50) and standard deviation(0.647) . the items that came last were(10) " discovers new ideas for the daily lessons" and item(11) "develops the students' critical and creative thinking skills" with means and standard deviation respectively(3.04,0.88) and (2.98,0.795).

-   Teaching planning field:

Items came first were: (18): "he chooses the appropriate teaching method that suit the students' needs (3.30-0.763) and items (15): " designs teaching plans in light of the students' learning and growth (3.28-0.784) in addition to item (12): " adjusts his teaching plans according to the new teaching and learning situations (3.28-0.834). While item (17) "employs sources of information technology in his teaching plans (3.12-0.799) and item (14): "design interactive activities motivate students to learn (3.14-0.799) came last.

-   The self development field: items (19 &20) achieved respectively the highest moderate degree "cooperate with his colleagues in developing himself professionally (3.23-0.844) and "shows interest in improving his educational and academic level (3.30-0.789). Items (27 and 21 came last with moderate degree, "follow related educational and scientific journal and periodical" (2.90-0.953) and "likes to use research strategies to develop his ability for learning" (2.94-0.935).

Students' learning field : the items got the highest moderate degree are respectively (29) and (28): "analyzes the students' performance and provide feedback (3.54/0.706) and "communicates with school administration about his students' learning and their progress" (3.54/0.762) whereas items that came last with moderate degree are respectively (35,32): "uses electronic means to provide information to the parents about their children progress" (2.94/0.956) and "involves his students in evaluating their learning and progress" (3.19/0.665).

The researchers believe that this results is expected because the Palestinians' teachers' roles are still traditional as the teacher focuses on the implementation and planning field because they are the fields which the supervisors mainly rely heavily of them in evaluating the teachers and therefore the researchers think of other tools (interview, checklist of roles) and apply them in the current study to achieve more accurate results.

Second: results related to the second question

Do the means of the supervisors about the teacher's roles in light of knowledge economy vary according to variables (years of experience in supervision, scientific qualification, schools being supervised) at (a≤0.05)?

To answer this question, means and standard deviation of the respondents' answers were calculated as follows:

Years of experience (supervision):

To find out any statistical significant differences, means of the fields and the total degree and One-Way ANOVA calculated as it is illustrated in table (5).

Table (5): results of One-Way ANOVA for the differences in the means of the teacher's roles in light of knowledge economy according to years of experience variable

Field	1- less -1 than 5 years		5- less than 10		10-less than 15		More than 15		F	Sig.
	M	Std	M	Std	M	Std	M	Std		
Teaching implementation	2.9	.572	3.55	.767	3.15	.269	3.27	.640	2.189	.102
Planning &teaching	2.79	.625	3.560	.770	3.095	.327	3.278	.636	2.998	.040
Self-development	2.82	.820	3.265	.967	3.135	.318	3.148	.758	.645	.590
Students learning	2.86	.718	3.509	.749	3.014	.261	3.215	.646	2.170	.104
Total degree	2.84	.714	3.429	.813	3.089	.224	3.202	.675	1.505	. 266

*(α ≤ 0.05)

Table (5) showed differences in the means of the teachers' roles in light of knowledge economy in the different field and the total degree according to years of experience in supervision. One-Way ANOVA and Sheffee were used and showed differences in teaching and planning field in favour of years of experience (5-less than 15). But there were no differences in the total degree and other fields which means the respondents' responses are alike to a great extent between supervisors with long, moderate and short experience and the researchers attributed this result to the teachers'   close experience in the knowledge economy and this result agrees with studies of Shadah and Omari (2014); Batarsah (2005) and Eiadat (2005).

– Scientific qualification variable

To identify significant differences, T-test was used as it is illustrated in table (6).

Table (6): T-test for the differences in the total means of the scientific qualification variable

Field	Bachelor		MA and higher		Calculated T	Sig.
	M	Std	M	Std		
Teaching implementation	3.21	0.352	3.27	0.770	- 0.315	0.754
Planning & teaching	3.18	0.350	3.24	0.811	- 0.262	0.794
Self-development	3.18	0.398	3.07	0.932	0.459	0.648
Students learning	3.15	0.422	3.21	0.784	- 0.278	0.783
Total degree	3.17	0.374	3.17	0.820	- 0.007	0.944

• **(α ≤ 0.05)**

The results in the previous table showed lack of statistical significant differences in the respondents' responses about the teacher's roles in the era of knowledge economy attributed to scientific qualification variable in the fields of the study. The means of the total degree of the bachelor was the master degree holders and higher was (3.17). This result explains lack of differences regardless the supervisor's scientific degree. The knowledge economy is one of the modern concepts that they have read about during their university studying. This result in compatible with the studies of Batarsah (2005) and Eidat (2005) and it disagrees with the studies of Olimat (2013) and Qtah (2008).

Schools being supervised:

To find out statistical significant differences, means and One-Way Analysis of Variance were calculated as it is illustrated in table (7).

Table (7): Results of ANOVA for the differences in the means of the teacher's roles in light of knowledge economy according to the schools being supervised.

Field	Governorate		UNRWA		Public & UNARWA		F	Level
	M	Std	M	Std	M	Std		
Teaching implementation	3.10	.360	3.85	1.606	3.08	.419	7.013	.002
Planning & teaching	3.138	.401	3.786	1.076	2.900	.522	5.929	.005
Self development	3.085	.441	3.700	1.272	2.600	.549	6.250	.004
Students learning	3.058	.405	3.750	1.061	3.00	.556	5.338	.008
Total degree	3.070	.385	3.784	1.129	2.849	.450	6.799	.003

• **α ≤ 0.05)**

Table (7) shows differences in the means of the teacher's roles in light of knowledge economy in different fields and the total degree. To check the significance of the differences, ANOVA and Scheffe were used revealing differences in the total degree and all the fields in favor of UNORWA schools.

There were no previous studies, according to the researchers knowledge, addressed this field. And these

results could be attributed to nature of supervision and control in UNORWA school, in addition to the teachers' training, hosting foreign experts and evaluating the teachers according to international criteria.
 Third question: What are the current roles which the teacher has and the roles he needs from the perspective of the supervisors in Palestine?

 To answer this question, nine supervisors of 419 teachers were interviewed deeply in addition to the checklist of the teacher's roles in the light of knowledge economy.

 Results of the interview:

The supervisors were asked the following two questions:

1) As a supervisor, according to what roles do you evaluate the teacher?

The supervisors' responses were as follows:

Supervisor (1): student's involvement, variety of methods, creative thinking, attention to the learner.

Supervisor (2): role inside and out the class as a guide

Supervisor (3): scientific mastery, teaching strategies, evaluation, emotions.

 Supervisor (4): education technology, professional growth, teaching methods, motivation and loyalty.

Supervisor (5): creativity, participation.

Supervisor (6): loyalty, his influence on the student, motivates the talented, participation in activities.

Supervisor (7): content pedagogy, profession ethics, scientific mastery.

Supervisor (8): curricula mastery, variety in evaluation, teaching strategies, providing appropriate educational environment, linking subjects with each other, worksheets, exams, courses.

Supervisor (9): scientific mastery, participation in activities, class management.

  The sample's responses for the question: what roles do the teachers need for training purposes? Were as follows:

Supervisor (1): variety in methods of teaching

Supervisor (2): learning process facilitation

Supervisor (3): teaching methods

 Supervisor (4): communication, critical thinking, active learning , learning technology

Supervisor (5): technology. Class management

Supervisor (6): the computer, evaluation & assessment, teaching methods, curricula analysis.

Supervisor (7): technology, leadership inside the class, integration, active learning

Supervisor (8): technology, research, teaching methods

Supervisor (9): critical thinking, research, innovation

Part two: a checklist of roles that the teacher should have in the era of knowledge economy:

- A checklist consisted of 21 roles that the teacher should have in the era of knowledge economy was distributed into the supervisors to identify the number of the teachers who has the role and to which degree.

 The mean of the proportions of the teacher's roles was calculated as it illustrated in details in table 8.

Table (8): ratio of teachers to each role that he should have from the supervisors' perspective.

Rank N	Teachers' roles in light of knowledge economy	Teachers with low skills who need training	Teachers with high skills
1	Researcher	97.1	2.9
2	His disagreement with others enriches his source of information	91.97	8.03
3	Non-typical teacher	91.34	8.66
4	Leader & creator in education	90.73	9.27
5	Has skills of challenge & creativity	89.82	10.18
6	Ability to have self total learning	89.55	10.45
7	Critical thinker	89.2	10.8
8	Educators of morals	88.18	11.82
9	has developed technical skills in education	87.29	12.71
10	A model for his students	86.75	13.25
11	Guide & monitor for his students	86.52	13.48
12	Academic competencies	85.78	14.22
13	Facilitator for learning	85.35	14.65
14	Planner	84	16
15	A friend & supporter for students	82.6	17.4
16	Has emotional characteristics	82.23	14.77
17	Leader of the class	81.19	18.81
18	Negotiator in the class	79.9	20.1
19	Likes group working	77.43	22.57
20	Cooperative with colleagues	77.15	22.85
21	Treat his students equally	65.93	34.07
	Average	%84	%16

Interview summary:

- Five out of nine supervisors (55.5%) evaluate the teacher's roles according to the scientific mastery, four supervisors out of 9 (44.4%) pay attention to variety of the teaching methods, creative thinking and participation in the activities. Three out nine (22.2%) focus on the variety of the assessment methods followed by loyalty. The other roles (11.1%) were students' involvement, training courses, creating appropriate educational environment, linking the curricula with each other, class management, using technology, influence of the teacher in the students and the profession ethics.

- Most of the roles which the teachers need were: variety in teaching methods and using technology as 5 out of 9 supervisors (55.5%) assured the necessity to train the teachers on different teaching methods, using technology followed by research and creativity (33.3%). 2 supervisors out of 9 asserted the necessity to train the teachers on communication, critical thinking, active learning and class management. Only 1 supervisor out of 9 (11.1%) assured the necessity of training for them.

It is clear that there is no unified reference created by the Ministry of Education (department of supervision) concerning teacher's roles identification.

Because investing knowledge is a new concept, the outcomes of scientific research should come true and this needs restart working. Knowledge economy should be given the priority and considered as one of the strategic goals to help the supervisors in evaluating the teacher's roles. This was confirmed by the studies of Ghoneim and Elghotmy (2016) and Gonzales Ruiz (2014) and reports of following up the project of developing education towards knowledge economy (8) ERFKEIL (2015: 24-25) which pointed that the methods which are used in evaluating the teachers are still rational and general as there is no specific and clear plan that paves the way to develop education according to knowledge economy and therefore they should be developed. Furthermore, ERFKIEL report (8) recommended constructing and managing educational training and supervision based on the international criteria to evaluate the teachers.

In the main stream, Hanafi (2016) assured that in the era of knowledge economy we need a teacher who is expert in searching for the information, a teacher who can accomplish his educational and social tasks, a teacher who can develop the qualitative side and organize the educational operations within its modern trends, a teacher who invest properly the educational technology as e-learning, self learning. He added that there is a need to a teacher who understands his mission and duty towards his society and nation through the educational situations, a teacher who interacts with the student for the sake of developing abilities, practicing thinking, raising spirit of creativity, and developing their personality as well. To have a teacher who initiates and trusts himself in organizing educational activities freely, works actively looking for opportunities for his professional growth, owns systematic and non-systematic evaluation strategies to evaluate the learner's mental, social and physical growth becomes a necessity. The Palestinian teachers lack the appropriate roles for the era of knowledge economy according to the study's results.

Concerning the second part of the study, means of the proportions of the teachers' roles that they should have from the supervisors' perspective were calculated as it is illustrated in table (7).

It is noted that most of the teachers lack the teacher's roles in light of knowledge economy from the supervisors' perspective as more than 84% of the teachers need training on most of the roles especially their role in research since 97.1% of the teachers need training to condense their activities in research. Moreover, more than 90% of the teachers need training in creativity and leadership in education. Items ranged from 80% to 89% focus on skills of creativity, challenge, self learning, critical thinking and technology in education in addition to developed academic skills. The proportions range from 77-79.9% showed the teacher's need to training on dialogue, discussion, team work and cooperation with their colleagues while the last item (65.93%) was about treating the students equally.

These results showed that the teacher needs greatly training in the self-development moving from traditional thinking pattern to open and developed thinking. The teacher also needs social and professional competencies in his dealing with colleagues and with the students as well.

Investment in knowledge means improving advanced skills of the roles in addition to professional skill (Pahl, 2014) and it means building abilities to respond to challenges that aim to develop creativity and imagination in the teacher's roles. Marginson (2008, 2007) and Morai (2006, as it cited in Elghotmy & Ghoneim, 2016) pointed that the teacher in the era of knowledge economy should have high level of education and the ability to access into knowledge and apply it .it is stated that language, knowledge and scientific research are the steps to develop national economy, respond to new developments in the world and find solution to urgent problems and this agrees with the current study. The same point was aroused by Hargreaves (2003) who believes that the teacher who lives in knowledge economy and society of knowledge needs motivation that will lead him to creativity and superiority. Therefore, based on this study's results, there is a need to create knowledge society that helps in developing the teacher's role at the schools.

Mahmoud (2016) sees that the teacher in the era of knowledge economy has to have the following roles: a teacher as a medium between the students and sources of knowledge, a model representing human rights and

democracy principals , a good user of technology in facilitating learning process, a guide in cooperative learning and creative thinking in addition a psychologist.

Fullan (2008) illustrated that there are six steps in developing the teacher's modern roles according to knowledge economy: treating with love, colleagues' cooperation in achieving the educational goals, working on developing the teachers' capabilities and abilities, learning is work, transparency and commitment. And this was illustrated in the studies and assured by Dufour (2004, 2005), in addition to other related studies asserted the existence of the teacher's updated roles in light of knowledge economy as Gonzales et al. (2014) and Hashimi and Azawi (2009).

Therefore, the educational system in light of knowledge economy has to reconsider the curricula, programs, educational processes continuously and expand the use of information technology, communication at work, learning, training and management (Diabat, 2007) and this supports the current study's results that there is a need to great change in the policy of rehabilitation and the teacher's roles and getting rid of the traditional methods based on drilling and imitation and replacing them with new teaching methods in light of knowledge economy.

3. Conclusion and Recommendations
3.1 Conclusion
The study concluded that teachers need to keep pace with the requirements of the twenty-first century "The era of economy and knowledge," with regard to scientific mastery and use of technology and creativity, excellence, critical thinking and scientific research through receiving some training on these roles, and the need to develop the evaluation mechanism among supervisors. The results of the study showed that the mean of the teacher's roles in light of knowledge economy from the supervisors' perspective was moderate. The teaching implementation field came in the first rank followed respectively by planning and teaching field, students learning and self-development. Moreover, the results showed the lack of statistical significant differences in the means of the teacher's roles in light of knowledge economy attributed to years of experience and scientific qualification variables. The results also showed differences in the means of the teacher's roles attributed to the schools being supervised in favor of UNRWA schools. Furthermore, the study concluded that the teachers have to be trained on these roles and the supervisors have to develop their evaluation mechanism and strategies in order to ensure better teaching and fruitful learning that build a generation capable of development.

3.2 Recommendations
1- Supervisors and teachers' involvement in seminars and workshops so as to develop their performance and increase their cognitive account in the era of knowledge economy.
2- Activating the supervisor's role in motivating the teachers to update their roles in the era of knowledge economy.
3- The supervisors reconsider the criteria they used in evaluating the teachers' roles.
4- Carrying out studies and similar research concerning developing the pre-service teachers and university teachers as well.
5- Ministry of Education should construct appropriate programs to develop and train the teachers on these roles.

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