

Degree of the Teachers' Practice of Their Roles and Knowledge Economy Concepts from Their Perspective in Palestine

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Abstract

This study aims at identifying the degree to which teachers are practicing their roles and knowledge economy concepts from their perspective in Palestine. Which raises teachers' efficiency and improves their performance by recognizing their roles. To achieve the objectives of the study, a questionnaire consisted of 35 items was developed. Also, an interview which was prepared to measure the teachers' practice of knowledge economy concepts was applied in groups and individually. The sample of the study consisted of 250 male and female teachers in the Directorate of Education in Ramallah and Al-Bireh governorate. Results showed the degree to which the teachers are practicing their roles was high (planning, teaching implementation, self development, students' learning). Results also revealed lack of differences between the means of the teachers' degree of practicing their roles attributed to gender, specialization and scientific qualification variables, but there were differences in the means of the teachers' degree of practicing their roles attributed to years of experience in favor of the (1-5 years) and the stage variable in favor of lower basic stage in addition to the supervision variable in favor of private schools. Moreover, the results of the interviews showed that some of the knowledge economy practiced by the teachers was heavily based on teaching strategies and teacher's roles. Additionally, there were concept abandoned especially in the field of research, social media, the student's role in producing knowledge and the authentic evaluation field. Based on the results, the study recommended the necessity of organizing training workshops on the procedural research and authentic evaluation in addition to carry other similar studies.

Keywords: teachers' practice of their roles, concepts of knowledge economy, Palestine.

INTRODUCTION

Many important changes have taken place in the 21st century in different fields including Education. And moving towards knowledge economy and employing it has become a necessity in education field. The concept of knowledge economy means getting and taking part in the information, and employing it to improve life quality in all fields (Mo`tamm, 2004). Knowledge economy focuses of investment in human resources as they are considered the intellectual capital. Also it relies on the qualified , trained and specialized human forces in addition to the use of

ideas and technology application and so there is an eager need to long life learners (Word Bank Group,2002) and this could be possible by moving from the traditional concept of curricula which focuses on the teacher as the center of learning process to the modern concept which aims at providing knowledge and experiences from different resources to the teacher (Ministry of Education,2002).additionally, the change to the modern concept of curricula requires a change in the teaching methods ,the education environment,

the curricula and school textbooks (Al-Hasmi & Alazawi, 2007).

Preparing the teachers to be knowledge producer and effective users of it and to have creative learning and teaching skills are the main basics of era of knowledge economy (Al-ahmad & Al-Shora, 2007). In this century, a teacher should have two basic skills at one time: the accurate specialization and the psychological and educational reparation and rehabilitation of teaching and students supervision (Arab Human Development Report, 2003).

In the same context, Batarsah (2006) assured that teachers' expected roles in the era of knowledge economy become more important as his possession of different competencies in different fields improve his performance in addition to his students' performance. Accordingly, the policies of teachers' training and preparation should be revised to make sure that they in line with the rapid development in all the fields. The teacher of the future will be the guide of the education process and the manager of the education situation rather than the only source of knowledge and therefore, his abilities should be developed so as to be effective (Al-Hasmi & Alazawi, 2007).

Statement of the Problem

The problem of the study is represented by answering the following main question and its sub questions:

- 1) What is the Degree to which teachers are practicing their roles and the knowledge economy principals from their perspective?
 - a) What is the teachers' degree of practicing their roles in light of knowledge economy from their perspective?
 - b) Do the teachers' responses means in their degree of practicing their roles in light of knowledge economy vary according to gender, specialization, years of experience, scientific qualification, school stage, supervision variables at ($\alpha \leq 0.05$)?
 - c) What is the teachers' degree of practicing concepts of knowledge economy from their perspective in Palestine?

Objectives of the Study

The study tries to achieve the following goals:

- 1- Degree of the teachers' practice of their roles in light of knowledge economy from their perspective in Palestine.

- 2- Effect of variables (gender, specialization, years of experience, scientific qualification, teaching level, supervision) in the degree of the teachers' practice.
- 3- Revealing the teachers' degree in practicing concepts of knowledge economy from their perspective.

Significance of the study

In the time Palestine changes to curricula development according to the requirements of era of knowledge economy, the study aims to reveal the teacher's practice of his role and concepts of this era because the creative teacher is the basic factor in the process of change towards knowledge economy.

- It is one of the few studies in addressing this subject which open the road to other researchers to carry out similar studies.
- Raising the teachers' efficiency and improving his teaching performance by recognizing his roles in light of knowledge economy
- It can be helpful to supervisors in terms of knowing the roles which the teachers should or should not practice so as to build appropriate programs for developing and training the teachers.

Previous Studies

Some of the studies that addressed this subject is the study of Al-Qarni (2009) which showed that transformation towards e-school is one of the most important educational changes at schools which has become a necessity in the era of knowledge economy with (89.2%) followed respectively by learning for living with other with (88.9%) and moving towards producing and creating knowledge with (88.6%).

Shatnawi and Olimat (2008) concluded that the extent to which degree the education diploma program achieve the educational competencies in light of knowledge economy from the students' perspective in University of Jordan was high and there studies investigated the efficiency of training program based on knowledge economy in developing the teachers' competencies as (Al-gdemat, 2008; Eiadat, 2005; Al-gotan, 2007; Al-batarsah). The results of these studies showed the efficiency of the program in developing the teachers' competencies and revealed that the education field needs 68 sub competencies including specialized and personal competencies

and planning, evaluation and information and communication (Qdemat, 2008) while other studies' studies showed low in the efficiency of the competencies that the teachers have (Batarsa, 2005).

Hilat and Qdah (2008) showed that the degree of the supervisors' possession of knowledge economy concepts was high. Moreover, results showed statistical significant differences in the supervisions' possession of the knowledge economy concepts attributed to the specialization variable in favor of the scientific ones while there were no statistical significant differences attributed to scientific qualification or years of experience variables.

Other studies that examined to which extent the curricula include concepts of knowledge economy and life skills (Al-hayk & Al-batina, 2007) showed lack of life skills which were employed in the curricula. Additionally, Aramin's study (2013) concluded that the Math curricula needs a parallel distribution to knowledge economy skills between the fields and Abo-Hamdan's study (2009) showed that the sciences books of the first three grades focused on the skill aspect more than the cognitive one.

There were studies investigated the teacher's role in creating an educational society in light of knowledge economy. For example, the study of Bonel and Rambla (2003) showed that the teachers resisted change and integration in the knowledge economy because the concept of knowledge economy is unclear for them. Moreover, the study of Sabah, Naser, Awajneh (2016) revealed that the level of teachers' roles was moderate and about 84% of them need to be trained on the renewable roles of the teacher in the era of knowledge economy. Additionally, the mechanism of assessing the teachers' performance focused on his traditional roles.

Many studies asserted that the human factor is basis of the success of knowledge economy system. For example, the studies of Holowetzki (2002) and Malhotra (2003) stated that the human resources should have some characteristics in the era of knowledge economy and the study of Dyabat (2007) revealed that some of these characteristics were creative thinking, flexibility in learning, continuous learning and teaching, long life learning, self learning, the ability to use information technology and accordingly the

education system has to reconsider the curricula, programs, education policy continuously, and to expand the use of information technology and communication at work. Similarly, the study of Yunus (2001) showed the education program needed basic change to create educated human resources which is equipped with technology. The study was in agreement with the study of Kang (2003) which pointed to the students' superiority who studied at schools that relied on producing knowledge and investing it.

Limitations of the Study

The study is limited to all the teachers of Al-beira and Ramallah (public, private and UNRWA) schools for the scholastic year 2015-2016.

Methodology

The descriptive and analytic approach was used for its appropriateness for the purpose of the study.

Population of the Study

It consisted of all the teachers in Al-Beira and Ramallah governorate (4474) as it is illustrated in table (1)

Table (1): distribution of the teachers according to the governorate and supervision for 2014-2015

Location	N	Public schools	UNRWA	Private
Ramallah & Al-Beira	4,474	3,017	275	1,182
%	%100	67.4%	6.2%	26.4%

- According to the statistics of the Ministry of Education & Higher Education (2016).

Sample of the study

A simple random sample consisted of 250 male and female teachers. The following table showed the sample's distribution according to the variables.

Table (2): distribution of the sample according to the variable

Variable	Category	N	percentage
Gender	Male	81	%32,4
	Female	196	%67,6
Years of experience	1-less than 6	53	%21,2
	6-less than 11	76	%30,4
	11-less than 16	50	%20
	More than 16	71	%28,4
Scientific qualification	Diploma	14	%5,6
	Bachelor	208	%83,2
	MA and higher	28	%11,2
Specialization	Scientific material	100	%40
	Human material	150	%60
Type of the school	Public	118	%47,2
	UNRWA	44	%17,6
	private	88	%35,2
Teaching stage	Low basic	94	%37,6
	High basic	73	%29,2
	secondary	83	%33,2
Total		250	%100

Instruments of the Study

First: a questionnaire of the teacher’s roles
 After reviewing the instruments used in the studies of (Mosatfa & Kiln, 2011; Al-Nashiri, 2014; Abo-Neir & others, 2011; Batarsa, 2005; Eiadat, 2005) and revising related literature, a questionnaire was developed to identify the degree of the teachers’ practice of their roles in light of knowledge economy from their perspective in Palestine. The instrument includes in its final copy of the respondents’ initial data and 35 items measured the teachers’ degree of practicing their roles in the era of knowledge economy from their perspective in Palestine and these items were distributed to four major fields as follows:

Table (3): distribution of the instrument’s items to its major domains

Field	Item	N
Teaching implementation	11-1	11
Planning & teaching	18-12	7
Self development	27-19	9
Students learning	35-28	8
Total		35

Scale Correction

Fifth Lickert scale was adopted and the items were graded as follows: very high (5), high (4), and moderate (3), low (2), very low (1).

Second: Interview

The researchers prepared an interview to know the degree of the teachers’ practicing of the concepts of knowledge economy. The respondents were asked questions about the teachers’ practice of the knowledge economy concepts. The validity of this

instrument was checked by displaying it to a group of specialized arbitrators and accordingly some modifications were taken into account. And the instrument’s reliability was checked through the following:

1- Reliability over time: interview a teacher and repeat it after two weeks. The two interviews were analyzed and agreement proportion was calculated using Cooper and it was (0.86).

2- Reliability across persons: The researchers interviewed a teacher, and this interview was analyzed by three scholars. Later, their results were compared and agreement proportion was calculated using Cooper as it is cited in Jaber (2002: 69), and it was 0.88.

Validity & Reliability of the Instruments

To check the instrument’s validity, it was presented to a set of arbitrators who are specialized in education and psychology. There was an agreement on the instrument validity. And to check the reliability of the instrument, the internal consistency of the items was examined through calculating Cronbach Alpha coefficient and its value was (93.0) which is considered a high degree of reliability.

Statistical Treatment

The descriptive approach was used. Means, standard deviations and the proportions were calculated in addition to the use of (t-test), One Way ANOVA and Scheffe. Moreover, Cronbach Alpha coefficient was used to check the instruments reliability. the following table (3) showed the criteria which was used to judge the degree of the teachers’ practice of their roles in the era of knowledge economy.

Table (4): criteria for judging the degree of the teachers’ practice of their roles in the era of knowledge economy

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

RESULTS AND DISCUSSION

First: results of the first question: “What is the degree of the teachers’ practice of their roles in light of knowledge economy from their perspective in Palestine?”

To identify the teachers’ degree of practicing their roles in the era of knowledge economy from their perspective ,means and standard deviations were calculated as it is illustrated in table (5).

Table (5): means and standard deviations of the teachers' degree of practicing their roles in the era of knowledge economy from their perspective

N	Field	N	M	Std	Degree
-1	Teaching implementation	11	4.24	0.169	Very big
-2	Planning & teaching	7	4.16	0.096	Big
-3	Self development	9	4.02	0.28	Big
-4	Students learning	8	4.07	0.25	Big
Total		35	4.121	0.486	Big

Table (5) showed that the degree of the teachers' practice of their roles in light of knowledge economy from their perspective was high especially in the field of teaching implementation followed respectively by planning and teaching, students learning and self development.

The means and standard deviations of the teachers' practice were as follows:

- Field of teaching implementation: items got the highest degrees were item (1): "communicate with your students to facilitate their learning and growth" with M (4.49) and standard deviation (0.532) and item (4): "you showed respect and care to the students" with (4.49 & 0.589). While item (8) came last: "provide students printed materials beside oral presentation" and item (6): "employ education technology in educational situations" with (3.9, 0.88) and (4.1,0.75) respectively.

-Field of teaching planning: items got the highest degree were: item (12): "adapting the lesson plans according to the new education situations with (4.29, 638.0) and item(18) "choose appropriate teaching methods to students' needs" with (4.22, 672.) Whereas the items that got the lowest degree were: item (17) "employ information technology in lesson plans" with (0.83 , 4.00) and item(14) "design interactive activities activates students learning" with (4.08 ,0.834).

- Self-development: item 20 (showed interest in developing his academic and education level) and item 19 (cooperate with his collogues to develop himself professionally) got the highest degree with (4.45,0.508 and 4.33,0.87) respectively while item 34 (update his

knowledge through reviewing the related literature to education) and item35 (cooperate with collogues out of school to develop himself professionally) got the lowest degree with (3.65,0.925 and 3.68 ,1.068) respectively.

- Students learning: items which have the highest degree with (4.32, 0.653) and (4.30,0.762) were respectively ,items 29 and 28: "analyze the student's performance and provide feedback to them" and "communicate with school management about students learning and their progress whereas the items which got the lowest degrees were respectively : item(35): "uses electronic means to provide the parents about their children progress" with (3.53 ,1.24) and item (34): "designs education activities in light of the students learning results" with (3.98 ,0.739)

The researchers believed that the degree of the teacher's practice of their roles was high because this study was conducted in the time Palestine seeks to restructure curricula and methods of teaching as in 2016 Palestine started to teach curricula that focused on the learners' skills and activities and to train teachers on these curricula. Therefore these teachers got knowledge of their new roles.

This result agrees with the Aramin's study (2013) which showed that the teachers' possession of the cognitive economy skills was high and it agrees with the studies of Dyabat(2007) and Hilita & Quda (2008) but it is in compatible with the study of Bonal and Rambla (2003) which revealed that teachers resisted change and integration in knowledge economy and the study of Sabah, Naser, Awajneh (2016) which concluded that the teachers' possession of their roles was moderate.

Second: results of the second question

Do the means of teachers' responses about practicing their roles in light of knowledge economy according to gender, specialization, years of experience, the teacher's scientific qualification, the students' stage and supervision of the school variables at ($\alpha \leq 0.05$)?

To answer this question, means and standard deviations of the teachers' responses were calculated as it is illustrated below:

- Gender & specialization

To identify any statistical significant differences, t-test was used as it is shown in table (6)

Table (6): Results of t-test for the differences in the means according to the gender and specialization variables

Field		Gender				Specialization				
		M	Std	T	Sig.		M	Std	T	Sig.
Teaching implementation	M	4.158	0.397	2.33 -	0.20	Scientific material	4.195	0.399	-1.470	0.143
	f	4.277	0.365			Human material	4.27	0.363		
Planning & teaching	M	4.04	0.474	-2.48	0.014*	Scientific material	4.126	0.579	-0.802	0.423
	F	4.213	0.526			Human material	4.179	0.467		
Self-development	M	4.030	0.519	0.224	0.823	Scientific	4.007	0.576	-0.250	0.803
	F	4.013	0.583			Human	4.025	0.554		
Students learning	M	4.049	0.501	-0.365	0.716	Scientific	4.047	0.5420	-0.471	0.638
	f	4.078	0.626			Human	4.083	0.619		
Total degree	m	4.070	0.401	-1.273	0.204	Scientific	4.094	0.452	0.790-	0.430
	f	4.145	0.455			Human	4.139	0.429		

(a≤.05)

The previous table revealed lack of difference in the means of the teachers’ practice of their roles in light of knowledge economy in different fields and the total degree according to gender and specialization variables except the field of planning in teaching in favor of the male teachers.

The researchers attributed this result to the similar current circumstances that affect the male and female teachers equally as they teach in the same environment, follow the same education system and have the same curricula and therefore their information about the subject look similar regardless their gender and specialization. This result agrees with the study of Aramin (2013) and

disagrees with the study of Neimat (2009) which showed a difference in the teachers’ possession of knowledge economy skills in favor of the females. Additionally, it is incompatible with Mosa’s study (2006) which revealed differences attributed to the job location and it is incompatible with the study of Hilat and Qudah (2008) which revealed differences in favor of the scientific specialization.

• **Years of experience**

To identify any statistical significant differences, means and the total degree were calculated in addition to One - Way Analysis of Variance as it is illustrated in table(7).

Table (7): results of One - Way Analysis of Variance for the differences in the means of the teachers’ degree of practicing their roles in light of knowledge economy according to the years of experience variable

Field	5years - 1		6-10		11-15		More than 15		F	Level
	M	Std	M	Std	M	Std	M	Std		
Teaching implementation	4.309	0.385	4.293	0.379	4.196	0.322	4.157	0.399	2.458	0.063
Planning & teaching	4.2911	0.565	4.227	0.485	4.094	0.385	4.028	0.558	3.506	0.016*
Self development	4.180	0.657	4.069	0.517	3.867	0.634	3.951	0.438	3.309	0.021*
Students learning	4.259	0.631	4.159	0.509	3.880	0.678	3.963	0.510	5.196	0.002*
Total degree	4.26	0.511	4.187	0.395	4.009	0.420	4.025	0.402	4.771	0.003*

*(a≤0.05)

It is clear from table 7, that there was a difference in the means of the teachers’ degree of practicing their roles in the era of knowledge economy in the total degree according o the years of experience and in different fields except teaching implementation. To check whether this difference is significant or not, One - Way Analysis of

Variance and Shafee were used. Results showed differences only in the field of planning and teaching attributed to years of experience variable in favor of teachers with 1-5 years of experience and in the fields of students learning, self development and total degree in the years of experience in favor of those with 1-5 years.

The researchers attributed this result that the teachers with 1-5 years of experience have more intensive training courses and teacher preparation in addition to have many supervision visits. Furthermore, the new attitudes of Ministry of Education in preparing a teacher based on the competencies help the teachers to acquire more and new skills.

These results were incompatible with the study's results of Sabah, Naser, Awajneh (2016) which showed lack of differences in the teachers' roles

to a high extent between teachers with long, moderate and short experience and the study of Hilat and Qudah (2008) which revealed lack of differences attributed to experience variable.

• **The teacher's scientific qualification variable:**

To check any statistical differences, means of the fields and the total degree, One - Way Analysis of Variance was used as it is illustrated in table 8.

Table (8): One - Way Analysis of Variance for the teachers' degree of practicing their roles in light of knowledge economy according to the scientific qualification variable

Field	Diploma		Bachelor		MA and Higher		F	Level
	M	Std	M	Std	M	Std		
Teaching implementation	4.195	0.380	4.240	0.385	4.247	0.341	0.101	0.904
Planning & teaching	4.204	0.422	4.175	0.513	4.005	0.556	1.411	0.246
Self development	3.984	0.424	4.028	0.591	3.964	0.377	0.187	0.830
Students learning	3.964	0.437	4.087	0.621	3.987	0.354	0.594	0.553
Total degree	4.087	0.363	4.133	0.457	4.051	0.321	0.475	0.622

*($\alpha \leq 0.05$).

Table (8) showed face differences in the means of all fields and the total degree. To check the significance of this difference, One - Way Analysis of Variance was used and results showed no differences in the total degree and the fields attributed to scientific qualification variable.

The researcher attributed this result to the novelty of the knowledge economy issue to all teachers with different scientific qualifications especially, this issue was not highlighted enough at university

level and in the academic courses and so this topic was totally new to the teachers.

This result agrees with the studies of Sabah, Naser, Awajneh, 2016; Batarsah, 2005; Eiadat, 2005 and Mosa, 2006 but it disagrees with the study of Aramin (2013) which revealed differences in favor of Bachelor degree.

• **Academic stage**

To find out whether there were statistical differences or not, means of the fields and the total degree were calculated and One - Way Analysis of Variance was used as it is illustrated in table(9)

Table (9): One - Way Analysis of Variance for the differences of the means in the teachers' roles in light of knowledge economy according to the academic stage he taught

Field	Low basic		High basic		Secondary		F	Level
	M	Std	M	Std	M	Std		
Teaching implementation	4.370	0.336	4.273	0.413	4.059	0.325	17.252	*0.00
Planning & teaching	4.226	0.421	4.286	0.537	3.967	0.542	9.362	0.00*
Self-development	4.148	0.518	4.087	0.594	3.812	0.528	9.158	0.00*
Students' learning	4.214	0.505	4.209	0.468	3.782	0.665	16.721	0.00*
Total degree	4.239	0.365	4.213	0.444	3.905	0.434	17.069	0.00*

*($\alpha \leq 0.05$)

As is shown in table (9), there are face differences in the means of all the fields and the total degree. To check these differences, One-Way ANOVA and Shafiee were used.

Results showed statistical significant differences in the total degree and in all the fields attributed to the school stage in favor of the low basic stage in the total degree and in the fields of teaching

implementation, self development, students' learning. Furthermore, the difference was in favor of high basic stage in the field of planning and instruction.

The researchers attributed this result to the nature of the low basic stage that required a teacher who develops his roles continuously and uses different strategies as storytelling, activities and games in teaching. And the teacher of the high basic stage was superior in the field of planning because the curricula of this stage are complicated full of

information which motivated the teacher to be skillful in planning to achieve his goals. It is worth mentioning here that the researcher did not find any study addressed the basic stage variable.

- **Supervision authority**

To identify whether there are statistical significant differences or not, means of the fields and the total degree were calculated and One-Way ANOVA was used as it is illustrated in table (10).

Table (10): Results of One - Way Analysis of Variance for differences in the means of the teachers' roles in light of knowledge economy according to supervision authority variable

Field	Public		UNRWA		Public and UNRWA		F	level
	M	Std	M	Std	M	Std		
Teaching implementation	4.043	0.344	4.400	0.372	4.418	0.295	38.271	*0.00
Planning & teaching	3.990	0.536	4.269	0.461	4.326	0.439	13.167	*0.00
Self-development	3.861	0.534	4.139	0.513	4.169	0.571	9.361	*0.00
Students learning	3.819	0.632	4.216	0.439	4.331	0.435	24.760	*0.00
Total degree	3.928	0.435	4.256	0.365	4.311	0.366	26.098	*0.00

*($\alpha \leq 0.05$)

It is clear from table (10) that there is a difference in the means of the teachers' roles in light of knowledge economy in different fields and total degree according to the supervisor of the school variable. And to check this difference, One Way ANOVA and Shaffee used and results revealed differences in the total degree and in all fields in favor of the private schools.

The researchers attributed this result to the private schools to compete with other schools so as to attract more students and get the parents more involved and therefore these schools aims to develop its teachers and achieve education quality in addition to adoption of international standards in teaching. This result is in compatible with the study of Sabah, Naser and Awajneh (2016) which revealed differences in favor of the supervision authority but it is not in agreement with the study of Aramin (2013) which showed lack of differences attributed to supervision authority.

Results of the third question: What is the degree of the teachers' practice of knowledge economy principles from their perspective in Palestine?

To answer the third question, the researchers interviewed the teachers in three groups in addition to individual interviews. Each interview consists of a set of questions includes five fields (teaching strategies, education technologies,

students, teachers, evaluation). Data were collected and analyzed and the results were as follows:

A: Group interviews results: low & high basic private school (10 teachers)

1-Teaching strategies: the school renews its teaching methods to develop the students' skills. The school seeks to integrate experience and link it with the student's life. The teaching strategies are many as: brainstorming, drama and acting. Projects, research, active learning, critical thinking, and presentation via the computer.

2-Education technology: in every class there is a computer and LCD in addition to electronic curricula, interactive board and equipped lab. The school has electronic page that helps it to interact with the students and their parents, update it with new information, and upload worksheets and students' files. Furthermore, there is a file to each student that is updated regularly.

3-Students' field: teachers believe that the students are leaders and therefore much attention is given to the students' personality and behavior. Teacher helps the students to think, analyze, presents his ideas and defend them. The student is trained to raise questions looking for problem solution. There is an: activity day" called self judgment to deepen the student's understanding of himself and his ability to make decisions.

4-Teacher's field: the teachers keep developing themselves continuously. Because the school's principals have higher academic degrees, they provide the teachers training courses in planning, test analysis, and questions formation in addition to sent the teachers abroad to increase their experience.

The teacher has different roles; supporter, correcting errors, guide, facilitator for learning process, and creator of safe environment He transfers experience to his colleague as he took many training courses.

Evaluation: attention is paid to initial and summative evaluation. Exams are built according to specific criterion and the questions are distributed to different thinking levels. But most of the teachers give 10 grades to the student's activity out of 100.

Group (2): Public Secondary School (7 teachers)

1- Teaching strategies: teachers used many strategies as: cooperative learning, drama, role playing, discussion, education games, problem solving, scientific presentations, projects.

2- Education technology: different education technologies are used to a limited extent because of lack of sufficient equipments at school. The teacher prepared lesson and searched for extra subjects using the computer. Furthermore, he solved some students' problems and looked for remedial plans via internet. There is a website for the school where worksheets, students' grades and performance development are downloaded. There is a continuous communication with parents inside and outside the school.

3-student field: the students according to the teachers analyses and discusses so the field of discussion is opened in addition to present problems and look for solutions. The student is trained to think logically and motivated to be responsible for his learning. As a leader, the teacher helped the student to acquire some leadership skills.

4-the teacher: the teachers assured that the students are the basis of education process and their roles are: guide, facilitator, and supporter. But they themselves have the big role inside the class because they have to finish the textbook on time. It is rare to be a scholar although there are some procedural researches done at the school level.

5-Evaluation: the teachers used initial, formative and summative evaluation continuously but the most common instrument is the exam. Few grades were given to the students' activities (do not exceed 10 marks out of 100). Remedial plans were used. Because paid much attention to achieve higher grades than to employ knowledge and use it.

Group (3): UNRWA: High Basic School (6 teachers)

1- Teaching strategies field: many strategies are used to motivate the students as active learning, cooperative learning, peers learning so as to develop the students' communication skills, thinking skills in addition to the use of discussion, brainstorming and problem solving methods. Two teachers assured that it is better to have the teacher as source and provider of the information to the students.

2- Education technology field: there is an extensive use of the education technology. The computer, power point presentation, videos, social networking to be used to upload plans for preparing the lessons and tests.

3- Students field: he as negotiator, leader, scholar. The teacher helps the student to think creatively and help his colleagues to find solutions.

4- The teacher: the teacher asserted their following roles: activator for the students' thinking skills and creativity and they are facilitator. Additionally, they respects values and share the information with the students. rarely the teacher did any procedural research.

5- Evaluation: the teachers used initial, formative and summative evaluation and the common tools used are the exams which were designed according to some characteristics. These exams' results were analyzed according to the students' acquired skills therefore using real evaluation is rare. Three teachers assured their use to remedial plans, portfolio and students' participation observation.

B: Individual interviews

The researchers interviewed 26 male and female teachers, data were analyzed and results were concluded as it is illustrated in table 11.

Table (11): Results of the interviews with the teachers

Field	Question	Items	N	Proportion
Teaching strategies	1- What are your strategies in teaching students to develop their skills?	Self learning	14	%53.8
		Communication	13	%50
		Critical and creative thinking	13	%50
		Problem solving	19	%73
		Brainstorming	7	%26.9
Education technologies	Do you employ education technology in teaching? How?	Using the computer for the teacher benefits: preparing lessons, making research plans, ..	25	%96.1
		Using the computer for social communication with the students & teachers	7	%26.9
Students	What is the student's role in the class?	Leader	15	%57.6
		Knowledge producer	11	%42.3
		Free in speech	12	%46.1
		Creative	15	%57.6
		A person who criticizes	20	%76.9
Teacher	What are the necessary roles for the teachers to keep up with the century? What about your experience?	Scholar	19	%73
		Creative & motivator	20	%76.9
		Respect values	16	%61.5
Evaluation	What are the strategies you for evaluating the students?	Traditional evaluation: exam, multiple choices, interview, true & false...	26	%100
		Using initial ,formative & summative evaluation	26	%100
		Alternative evaluation: portfolio, interviews, remedial plans, observation.	5	%19.2

SUMMARY AND INTERPRETATION OF THE INTERVIEWS' RESULTS

It can be concluded from the interviews, that some teachers know little about knowledge economy principals and there are some principals practiced with low degree. Reading the groups' interviews' results, we find awareness in the teaching methods used as the teacher has greater and more flexible role. In the field of education technologies, we notice the superiority of private schools for they have modern technical means but in all the schools the teacher tries his best to use and employ the technology to facilitate learning process. Additionally, there is a communication with the parents via the school's website. And according to the use of social networks between the teacher and the student is almost rare.

Concerning the field of students, it is clearly that the student has new roles as the leader and the critic but there is no attention is given to the student as knowledge producer. And in the field of the teacher, there is a weakness in his role as a scholar. In the field

of evaluation, there is an awareness regarding the use of evaluation but the authentic evaluation tools are rarely used.

The results of the individual interviews are not far away from the group interviews' results. In the field of teaching strategies, different strategies are used .in the field of education technologies; most of the teachers (25) used these technologies for preparing lessons and plans while few teachers (7) used the technology for social communication.

In the field of students, the student's involvement in producing knowledge and freedom of speech was the least. And in the field of teacher, paying attention to values and emotion was the least while in the field of evaluation , tools of authentic evaluation were mainly not used except five teachers who assured their concentration on participation and remedial plans in addition to deactivation of the student's portfolio .

These results were compatible, to a high degree, with the study of Bonal and Rambla (2003) which revealed the teachers' possession of knowledge economy skills while some teachers resisted the change and integration

in knowledge economy because the idea of this concept was unclear for them and this could be attributed to the principals' carelessness in showing the nature of the teacher's new roles which in turns affects the teacher's capability in doing his role in light of the big number of the students.

But these results were incompatible with some aspects of the study of Abo-Hamdan (2009) which was applied on the science textbooks of the first three grade students and revealed that the textbooks focused heavily of skill aspect rather than the cognitive one and the aspect of attitudes was ignored. Moreover, the activities used in these texts were varied. Although there were variety in the tests as means of evaluation but they focused of the concept aspect rather on the practical skills as the critical and creative thinking skills

The private schools' students were superior than other schools' students because they practiced their roles higher than others and Kang (2003) assured the school students' superiority which depends on producing and employing knowledge because it links them more with life and make them more capable to use knowledge in solving their problems.

CONCLUSION AND RECOMMENDATIONS

Based on the results, the researchers recommended the following:

- Confirming the teacher's role as a scholar and knowledge producer through organizing workshops about procedural research and encouraging him to write procedural research.
- Organizing workshops addressing the authentic evaluation, its tools and activate it.
- Asking the principals to change the evaluation criterion used at schools to be more fair trough evaluate activities as well as exams.
- Carrying out further and similar studies concerning the teacher's skills in light of knowledge economy.

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