

The Degree of Schools Principals Practicing Innovation and its Relation with the Teachers' Professional Development

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Abstract

The study aims to know the degree of schools principals practicing innovation and its relationship with the teachers' professional development; the population of the study is consisted of all male and female teachers numbering to 415 teachers; the sample of the study is consisted of 205 male and female teachers from members of the study population. To achieve the goals of the study two questionnaires were developed in order to collect information to define the degree of the schools principles practicing innovation and its relation with the teachers' professional development; the first questionnaire contained the degree of the schools principles practicing innovation; the first questionnaire is consisted of 24 paragraphs, the second questionnaire contains the measurement of the degree of the teacher's practicing professional development which is consisted of 37 paragraphs whom their validity and consistency are checked. The study concluded that the degree of schools principals practicing innovation and its relation with the teachers' professional development in the three domains was great arranged in accordance with the study domains as follows: encouraging of innovative ideas, promoting of schooling environment and solving of innovative problems. The study results showed as well that the degree of schools teachers' professional development was great according to the teachers' point of view. The result of the study revealed a positive correlation of statistical significance at the level ($\alpha \leq 0.05$) among the averages of schools teachers estimations in the domains of schools principals practicing innovation and their estimations of the teachers professional development. In the light of the results the study recommended the work to meet the required new training for the schools principals; to conduct the field studies on the effectiveness of the training programs provided to the schools principals and to the teachers and to increase the appropriate material and nominal motivations for the innovators of them.

Keywords: Innovation, Professional Development, Schools Principals

Chapter One

Background of the study and its importance

Introduction:

Management is the art and science of achieving the objective through others. And the educational administration is a branch of the general administration of the state and society. It is a process in which the education system in a society is managed, according to the ideology of such society and according to its political, economic and social conditions, in order to achieve the society national goals of education. It is the education for the young and adult education and to prepare them to live in a community so as to provide the manpower required to push the movement of life, and achieve the educational outcomes, and create an environment characterized with creativity and innovation, continues to contribute in the sustainable professional development for the school teachers to keep up with the professional and educational development.

The world today is characterized by the scientific and technical acceleration and a revolution in the various educational, scientific and intellectual fields, due to what its innovative members have introduced of inventions and discoveries in various fields, pushed forward the rest of the nations and human communities to try develop their sons and their potentials to follow up others in investing all their energies, potentials and wealth, most notably the human wealth, in the light of the steady progress of civilization, through the realization of thought and effort, and to stimulate human brain for creativity for the development of human life; and to achieve progress and prosperity (Almcharfi, 2003).

Creativity represents the principal ability to devise methods and ideas that can receive optimal responsiveness of the employees and motivates them to invest their abilities and their talents to achieve the organizational goals in educational institutions (Hamadat, 2008).

Al Zohry (2002) had pointed out the most important factors that encourage creativity. of which the presence of appropriate social environment for the collaboration of the individuals, and promote constructive competition. Horyah (2004) as well focused on the personal factors of the innovators in the light of which the creative qualities distinguish them from other ordinary people, such as independence, perseverance and openness to experience, and risk.

According to the creative concepts of the roles of the school principal, the roles are no longer routine, aiming to the routinely performing the conduct of the school work according to specific rules and instructions, but it became a function characterized by innovation and creativity to provide appropriate conditions directed to students' mental, spiritual, social and physical growth, and to prepare them to assume future responsibilities of

the modern era teachers (Otaiwi),

In order that the management is upgraded to the level of dealing with the challenges and overcome them, it must have to become creative managing. This does not mean that the principal himself /herself becomes creative only, but creates a creative environment stimulating creative and a climate that embodies creativity, elevates to embrace and deepens the outputs which return with distinguish and leadership to the enterprise, and with the ability to achieve ,most effectively the goals as prepared (Roussan, 20120).

To achieve creativity and achieve the educational objectives process, one must consider the importance of the teacher. The teacher represents the spirit of the educational process and the basis on which the success of education depends to attain its goals, and to interpret those goals into reality in life. The teacher is the one who works to develop abilities and skills of students through the organization of the educational process, direct it and employ the instructing techniques and its methods and know the needs of the students and methods of discussing and instructing them which is a fundamental factor in any educational position. For this reason all nations have given interest to the teacher's professional growth, and to improve the teacher's knowledge and skills by helping the teacher to gain new capabilities, enabling him/her to develop himself/herself and employ him/her potentials to agitate him the students and guide and help them to how to think and benefit from their lessons with perception of their needs, and to understand their motivations toward understanding the facts and interpretation of the apparent element , and to analysis element till the desired educational goals are achieved, which are the basis of the educational process (Al Jamhour,2012).

The attention rendered to the teacher and to the professional development spring from its being as the backbone of the scientific and educational life and its main motivation. It is its core power. The professional development of the teachers has become an urgent necessity imposed by the nature of life that is accelerating towards the second decade of the twenty-first century, that we are discussing (Nasr, 2004).

The professional development of teachers is of the basics of improving education, because of its great importance in teaching performance development of teachers, and in the development of students' learning of necessary the necessary skills. The professional development is considered as the main key to the acquisition of professional and academic skills that help the teacher to carry out his professional duties (Al Mafrej and Al Mutairi and Hamada (2007).

The professional development of teachers is based on increasing the choices, and development the teachers' efficiencies and the develop so that they will be able to efficiently play their roles and perform their duties efficiently, as the teachers' professional development is a process of develop knowledge, skills , values, and professional attitudes (Ghalib and Alem (2008).

However, as leadership is considered the fundamental criterion that determines the success of any educational institution, and is considered the main engine to achieve the educational objectives, and to make it more dynamic ,so that makes clear the relationship between creativity among school principals and the professional development of the teachers, that appears through the principal create training opportunities for the teachers to participate in the institution's activities; and create training to creatively solve problems. Through the training of thinking on flexibility and on the freedom to abandon the stable and rigid state to the originality and development of creative skills in working and in teaching, and in solving educational problems (Al Hariri 0.2012).

The Problem of the Study

The issue of qualifying and developing the teacher, and his/her professional development is no longer a secondary issue. It is a fateful one dictated by life necessity, especially by what we are experiencing of life challenges and significant transformations in the life of nations and peoples that impose on the officials to be attentive to the issue of upgrading the teacher, and develop the teacher professionally (Al Mofarrej, Al Mutairi and Hamada (2007).

The need for professional development also always exists; there is no teacher could survive on what knowledge and skill on education are available to him/her, but educational skills and vocational efficiency have to be characterized by continuous development. The teacher's vocational development will never happen without the presence of creative leadership based on innovation and renovation in administrative and educational work, and suggest alternatives to the presence of administrative leadership, based on creative innovation and originality on the developing of teachers professionally (Al-Khawaja 2003).

According to the domain and educational experience in the field of Education, the needs of the teachers appear for continuing professional development, relied on the presence of a creative administrator suggestive of efficient administrative alternatives in training, development and teachers' vocational development far away from the traditional administration and routine in the educational work, to be replaced by creativity which contributes to the stimulating of teachers and helps them to continuing professional development to be an incentive to the study of the actual reality of the principals practice of creativity, and its relationship to the professional development of teachers. So the problem of the current study can be identified through revealing the degree of creativity practiced by the school principals and its relationship to the professional development of the

teachers by answering the following questions.

- What is the degree of principals practicing creativity from the teachers' point of view?
- What is the degree of professional development of school teachers from their point of view?
- What is the relationship of the degree of school principals practicing creativity with the professional development of teachers?
- Are there differences in the degree of creativity practice among school principals from the point of view of the teachers at the significance level ($\alpha \leq 0.05$), according to the study variables of sex, qualification and experience?
- Are there differences in the degree of professional development of the school teachers from their point of view at the significance level ($\alpha \leq 0.05$), according to the study variables of sex, qualification and experience?

The Objectives of the Study:

The study aimed to identify the degree of school principals in Kufr Manda practicing of administration creativity, and its relationship to professional development of the teachers, and the impact of sex, academic qualification, and experience.

The Significance of the Study:

The current study derives its significance from its subject's importance and from its renovation in the educational domain. Creativity is considered one of the contemporary administration topics that overshadow the schools teachers professional development concepts, the current study also derives significance from importance of the principals and the teachers, it attempts to reveal the extent of the availability of such administrative concepts they have, as the principals and teachers are of the most essential elements in the educational process, and their success is a success for the educational process.

Terminology of the study:

Creativity:

Terminology: It is a process of attempting to make a distinct move on the organizational level by generating a set of innovative creative ideas and their implementation by work individuals and groups (Al Fadhl, 2003).

Procedural: Creativity in the current study is defined as the average of teachers' responses on the level of the principals practicing of administrative creativity in schools in the light of a creativity questionnaire that will be developed to achieve the goals of the current study

Professional Development:

Terminology: It is an ongoing and an organized process, and a golden purposeful opportunity, available to individual to move them from their current level to a better level, provided the element desire and ability of the teacher are available for the teacher (Nasr, 2004).

Procedural: In the study the professional development is defined as the average of the school teachers' responses to the level of their professional development in the light of the professional development questionnaire that have been developed to achieve the goals of the current study.

Limitation of the Study:

The generalization of the study results is done in the light of the accuracy and objectivity of the school teachers' responses to questionnaires paragraphs.

The Theoretical framework and Previous Studies:

This chapter includes the theoretical literature and previous studies related to innovation and professional development, they are as follows:

First: The theoretical literature: The theoretical literature includes the topics related to the study two main variables, they are creativity and professional development, and are as follows:

Creativity:

The attention to the administrative side and educational administration appeared when the impact of the administrative process appeared in the developing and stimulating the individuals' potentials in creativity and work, and created unexpected innovated potentials from individuals and normal communities, for the sake of achieving high level of success in the educational process. Therefore, there ought to be care taken in school management and to rehabilitate it, so that those educators contribute in the teachers' potentials innovations in achieving the educational goals of the process, because the preparation, the motivation and the attention, are the way of creativity, which is the only way to keep up with conflicting changes in the shades of communities (Al Zohry, 2002).

The school management has the ability to provide the appropriate conditions that encourage and develop creative potentials of the employees, and make the way for everyone to contribute in the achievement the planned educational outcomes, by creating an atmosphere of friendly competition, and increasing work effectiveness by modern, advanced programs and by communicating with local community, the mystery of success and achieving the goals that the educational institution is seeking to achieve, are represented by creativity and ability to innovate so as to stimulate the human brain in a competitive atmosphere provided by the educational administration. The supportive forces have themselves to withstand the various challenges and requirements. Therefore, the creative education management has become a necessity to keep up with the process

of evolution in the educational field (Huwaidi, 2004).

The creative principal is cable to think about the overall educational process on the basis of creativity of all its elements and components, so that the principal seeks by all efforts and awareness , provide an environment that encourages to work to the best of creativity energies, through giving full freedom to all employees in general and the teachers in particular in order to develop and apply effective instruction methods and to accept all point of views as being creative potentials in accordance with the variation of potentials among individuals so that the teachers feel that they are in command over matters and decision-making that give them the chance to implement the skills and potentials of thinking in all kinds so as to attain creativity and give them the feeling of self-confident and encourage them to try methods and means they avoid to try fearing of failure because the failure has become for them the start of new creative potentials, because the creative management is the management that work for the activation of conscience participation among individuals and work for developing of skills of cooperation and experience exchange in order to achieve the supreme goal of the educational establishment and the society; and completely eliminated the conflict and confrontation among its individuals which are the main cause of detriment to the work and creative thinking (Abbas 2004).

There are basic element for innovation that must be taken in consideration such as the strategic thinking and the establishing institutional confidence that meet s the needs and requirements of the members of the institution as being elements who should be trained and should be given the attention to place them on a high level of distinction and innovation (Jarwan 2002).

The administrative innovation could be the result of various processes or the result of an idea, or process or discovery , it is of various types and the more common fields are the adaptation or the imitation of the experiences of others, or collecting unconnected ideas and information to create of the a new idea, or to enhance through applying of new ideas , or innovating new means and methods in the sphere of work (Hammoud 2002, and Van De Ven adds the innovation of the process and innovation of the outcome which insure the innovation of new methods and means for development and use.

Therefore, it may be said that the struggle among the advanced nations is a struggle among the brains of those nations' sons through the developing of capabilities and innovations so as to reach to a scientific and technological priority that would insure pioneering and leadership for that nation. Therefore, nations have set out a main goal for the educational process that is to develop thinking by all its types for its sons in every field as it is the ideal way to prepare a capable generation to train themselves and education their sons and to take proper decisions that must be taken and to shoulder the huge responsibility they face (Al Mashraqi 2003).

Professional Development

Teacher symbolizes the spirit of the educational process and the foundation on which education stands to reach its aims and achieve its goals so as to translate education into a reality in life. The teacher is who works to develop students' abilities and skills through organizing and guiding the educational process , employing the instructional tools and methods, awaring of the students needs and ways of discussing and teaching them, he is a main factor in the instructional process, therefore, all nations have given their attentions to the teacher's professional development in order to gain new knowledge , skills and abilities that would enable the teacher to develop himself/herself and to employee the abilities in agitating students and to guide them and assist them how they should think and utilize their lessons along with recognizing their need and understanding their motives towards understanding facts , interpreting the phenomena and analyzing the elements so as to achieve their desired educational goals that are the basis of the instructional process (Al Jamhour 2012).

Professional development is one the important effective basic potentials for teachers in the educational institution it is an organized and studied process to establish new educational, instructional and personal skills for teachers and renew what they possess of knowledge and skills and their impact to upgrade the teachers' level of performance in the domain of their work (Moqarreb 2002).

The Ministry of Education in Jordan (202) has defined the professional development of the teacher as a continuous planned and organized process, enforceable to upgrade the level of tasks performance through the acquisition of teacher by necessary skills, providing him with information and developing the positive trends in order to improve the level of instruction and learning as a response to the transformations and needs of the community.

The process of preparing the teacher and training him/her to perform the requirements delegated to him/her needs to train the teacher a scientific training that enables him/her the acquisition of knowledge and capability to use the modern technical means, because the training process determines the quality of education which students receive , and the opportunity also becomes available before the teacher to immediately apply what has been trained on in a practical way with the students, and to receive the feed back from his /her colleagues, supervisors and administration which would enable the teacher to build his / her own philosophy in education and adopt methods and strategies in education (Qotait 2012).

There is an urgent need to upgrade the level of teachers' efficiency during service as the teachers are in fact the essence of the educational process and the corner stone in interpreting and achieving the educational

goals, accordingly the significance of the principal's role becomes clear because his /her total capability, sufficient experience and high efficiency that qualify him/her to the burdens of such role that enables him/her help the teacher and student, and to diagnose the aspects of strength and weakness and provide necessary guidance and assistance (Hussein 2007, Al Jomhour 2012).

Second: Previous Studies

This chapter includes a presentation to the previous studies related to the two variables of the study-the innovation and the professional development- as follows:

1-Studies Related to Principals Innovation

-Al Ziadat 2007 has made a study aimed to reveal the levels of practicing the creative management for the principals of secondary school in Jordan and its relation with the personal creative characteristics. The sample of the study consisted of 181 male and female principals of government and private secondary schools. They were selected randomly selected from the region of the North, Middle and South of Jordan. In order to achieve the goals of the study a management creative questionnaire was developed, the results that the Jordanian secondary schools principals highly practice the creative management, The results of the study that there are difference of statistical significance among the degrees of the Jordanian government and private schools principal practicing the creative management in favor of the private schools principals and also revealed that there are positive correlation among the creative personality of the principals and their practicing for it.

-Ibdah 2007 has conducted a study to know the role of the secondary schools principals in development innovation among the teachers' of Irbid governorate from the teachers' point of view. The sample consisted of 600 male and female teachers and covered the three variables of sex, qualification and experience. The researcher applied a questionnaire included 70 paragraphs that covered seven domains. The study results revealed through the questionnaires that the principals' role in developing innovation was as follows, progressively arranged: the change, the dialogue and the discussion, the thinking, the positive criticism, school improving and developing, methods and means of instruction, participating with the local community, and social relations in school. The study results revealed that there are differences of statistical significance among the averages towards innovation development from the teachers' point of view, attributed to the sex and the qualification.

-Al Ajez and Shaldan 2010 have conducted a study aimed to reveal the school leadership role in developing innovation of the Gaza Strip secondary schools teachers from the point of view of the teachers. The sample of the study consisted of 303 principals where the researcher employed the analysis descriptive approach. The results of the study showed that there are no difference of statistic significance about the role of the school leadership in developing innovation of the teachers in the secondary schools of the Gaza Strip from the teachers point of view according to the qualification variable, and also there are no difference of statistic significance about the role of the school leadership in developing innovation of the teachers in the secondary schools of the Gaza Strip from the teachers point of view according to the years of service variable, and also there are no difference of statistic significance about the role of the school leadership in developing innovation of the teachers in the secondary schools of the Gaza Strip from the teachers point of view according to the specialization variable in the bachelor degree. The researcher recommended the selection of a conscience educational leadership that believes in the significance of innovation within the schooling environment that strives for the development of teachers and learners.

- Lieblich study 1993, attempted to d the role of the school principal in the aspect of support and educational innovation and on stressing on the role of the school principal to find continuous change .The sample of the study consisted of a secondary school in West Europe. In this school innovation was followed during 5 years through which the researcher made interviews and employed the analytical descriptive approach .The results revealed that the principal of the school upon which the study was applied has a distinctive role in supporting the two types of innovation (individual and collective).He recommended that the innovation awareness and culture should be circulated and the schools principals must be trained on innovation.

-A study conducted by Fuentes 1995 attempted to define the management leadership in order to promote the innovation change. A special program was applied on a sample of American schools principals of 500 principals and vice principals from several American States by employing the descriptive approach. The study samples were collected through interviews, questionnaires, and observations. The results of the study revealed that there are no differences of statistic significance at the level ($\alpha \leq 0.05$) as for the management leadership to develop innovation and change attributed to sex variable and experience variable.

- Crum and Sherany 2008 study attempted to know the importance of management innovation of the secondary schools principals in Virginia State and its impact on the on the development of the school employee performance to achieve higher levels of education. The study sample consisted of 100 secondary schools principals. The questionnaire was used as a tool for the study. The study results revealed that the schools enhancement falls upon the shoulder of the principals as anew requisite and that requires them act in an administrative, creative way educationally and leadership. The results of the study reached as well that the extent

of the secondary schools principals success in making students achieve high levels of education depends on their practicing of actual innovative management resulted from the preparing of an environment supporting the employees achievements, and from making easy the management process and strengthening the spirit of one team and communication among the employees that had positively influenced the students level of learning.

2-Studies Related the Teachers' Professional Development

-Al Antar 2013 conducted a study aimed to know the leadership role of the school principals in Mecca on the professionally developing the teachers, from the teachers point of view, as regard to their perception and practice. The sample of the study consisted of 250 principals in all school stages. the researcher employed the descriptive surveying approach as he applied a questionnaire on the sample of the study where the results revealed: the arithmetic average of the study sample responses on the axis of the study(planning, follow up, training, cognitive structure , social environment) indicate that degree of the principals cognizing of their leadership roles in redeveloping the teachers professionally was high The researcher recommended that the degree of cognition among the schools principals as regard to the axis of the questionnaire and effective practice should be increased.

-A study by Calhony 2001, he attempted to know the schools principals roles in upgrading the levels of the educational process. The study sample consisted of 415 male and female principals where the researcher employed the questionnaire as a tool of study. Its results showed that the principal has an effective and significant role in upgrading the teachers attitude towards their profession through the nominal and material support given to the teachers and in providing the organizational environment that is assisting innovation by building positive relationships between the principal and the teacher; through the attention given to the teachers tendencies, needs and requirements; and by giving the teachers the chance to apply their ideas and to participate in planning and decision making as regard to the work inside the school and the practices of educational tasks.

- Louis 2007 conducted a study that also aimed to know the role of school principal on the management of transformation and professionally develop the teachers. The study aimed as well to know the most significant roles performed by the principal in developing the innovation skills and in uplifting the teachers' motivation in the school. The sample of the study consisted of 18 school principals and 200 teachers in order to know the role the principals' play in the developing of the innovative capabilities and in increasing the level of work motivation of those teachers in the secondary schools. The study was done in North Africa. As a means of information collecting, the interviews and the questionnaire were used. The results of the study revealed that there is a great role for the principals to play in the upgrading of the effectiveness and motivation of the teachers towards the educational process, the study also showed that there is a great role for the principals in the developing of the secondary schools teachers' and students' innovative capabilities and hat could be done through the main role he possess in the proceeding and developing of the educational process and by permitting the teachers in expressing their ideas and by participating along with the school management in the problems solving. The study showed also the teachers' responses in the questionnaire concerned with them, that the principal has a great role in developing the innovative abilities and in creating creative atmosphere necessarily influencing the educational process and in creating motivating atmosphere of the teaching process.

Method and Procedures

The researchers dealt the description of the methods and procedures that were adopted to achieve the goals of the study which embodied a description to the population and sample of the study, the tool of the study, the methods of checking the validity and stability of the study, the variables of the study and the statistical remedies used to answer the questions of the study.

Methodology of the Study

The correlation descriptive method which is appropriate with the nature of the study was employed.

Population of the Study

The population of the Study is consisted from all male and female teachers of Kufr Manda schools, they are 415 teachers according to the statistics of the directorate of education of Kufr Manda Region.

Sample of the Study

A random sample consisted of 205 male and female teachers, was selected. They form about 49.39 of the study population; table no.1 illustrates the distribution of the study sample members in accordance with the study variables.

Table No. (1) Distributing of the study sample members according to its variables

Variables	Levels	Number	Percentage %
Sex	Male	90	43.90%
	Female	115	56.10
Total		205	100%
Qualification	Diploma + Bachelor	139	67.80%
	Master + Above	66	32.20
Total		205	100%
Experience	Less than 5 years	22	10.73%
	From 5 Years to 10 Years	67	32.67
	More than 10 Years	116	56.59
Total		205	100%

The Two Tools of the Study

Two questionnaires are set up. The First is to measure the degree of practicing innovation by the schools head masters, and the Second is to measure the degree of vocational development among the teachers. They are as follows:

1-Questionnaire of the school headmasters practicing innovation

The Questionnaire of the schools headmasters practicing innovation is developed to measure the degree of their practicing innovation according to Likert Procedure. It is consisted of 24 paragraphs distributed on three domains. It is developed relying on the theoretical literature and the previous studies.

2- Questionnaire of the Vocational Development among the Teachers:

The questionnaire of the vocational development degree among teachers was developed in order to cognize the degree of vocational development among them according to Likert Procedure; It is consisted of 37 paragraphs. It is developed relied on the theoretical literature and the previous studies.

Validity of the two Study tools:

In order to check the validity of the Study tools, the two questionnaires were presented to (10) arbitrators from the teaching staff members, from the departments of Education Faculties and Educational Science Faculties of the Jordanian universities. The arbitrators were requested to judge the paragraphs content quality and give their opinions in the following:

- The linguistic Phrasing & soundness.
- The extent the paragraph matches the domain under which it is listed.
- What they feel necessary whether by omission, combination or addition.

The instructions and suggestions of the members of the arbitration committee were taken into consideration, as the linguistic phrasing was altered in several paragraphs.

Stability of the Study Tool:

To check the stability of the study two tools, their coefficient of stability was calculated by two ways: the first way was the test and retest approach that was applied on an investigative sample of 35 male and female teachers from outside the sample of the study. It was applied twice with a time interval of two weeks between one application and the other. Pearson coefficient for the results of the two application was calculated where the satiability coefficient of the domains ranged between (0.92-0.89)and the value of total degree of school principals practicing innovation reached to (0.93) ; the stability coefficient for the domain of vocational development among teachers reached to (0.89),while in the second approach the Cronbakh Alfa approach was employed to know the internal consistency of the paragraphs, the values of the stability coefficients for the domains of the innovation practicing degree among the schools principals ranged between (0.93- 0.83) for the domains as a whole. The values of the stability coefficients for the domains of the vocational development degree among the teachers were (0.92) which are reasonable values to conduct such study.

Table (2) illustrates the values of stability coefficient for the domains through the return approach and Cronbach's alpha method of the internal consistency.

Table (2) Values of coefficient Stability and internal consistency for each domain of the questionnaire

Section	Domains	No. of Paras	Stability Coefficient Values	
			Parsons	Alfa Cronbakh
Degree of practicing creation by schools headmasters	Encouraging Innovative ideas	7	0.86	0.88
	Solving Innovative problems	6	0.84	0.83
	Improving of school environment	11	0.92	0.91
	Degree of Innovation practice by school Principals	24	0.93	0.92
Degree of vocational improvement among teachers		37	0.89	0.92

The Study Procedures

To achieve the objectives of the Study, the following procedures were adopted:

- The Study population and the sample members were specified.
- The theoretical literature and the previous studies related to the teachers' innovations and teachers' vocational development were prepared.
- The study tools were constructed and their validity and stability were checked.
- The two study tools were applied on the sample of the study.
- (220) questionnaires were distributed of which (205) questionnaires were recovered and were subjected to statistical analysis.
- The responses of the sample members were entered into the computer memory and the statistical analysis was done by employing the statistical program.
- Analyzing and interpreting the results and accordingly suggesting the recommendation

The Study Variables:

The study embodied the three following variables

First: Dependent Variable:

The degree of schools' principals practicing the innovation. It is expressed by the arithmetic averages of the sample members' estimation, on the paragraphs and domains of school principals' innovation practicing section.

Second: Independent Variables:

- 1-Sex. It is of two categories: Males and Females.
- 2-Qualification. It has two levels: (Diploma+ Bachelor and Master and above).
- 3- Experience. It has three levels: (Below 5 years, from 5 years to below 10 years and above 10 years).

Third: Dependent Variable:

Degree of schools teachers' professional development is expressed by the arithmetic averages of the members' estimation sample, on the paragraphs of professional development degree of school teachers.

Statistical Processing:

The following statistical analyses were used:

The frequencies, the percentages, the arithmetic averages, the standard deviations, Pearson correlation coefficient, multiple analysis of variance test, contrast triple analysis test, Schafer distant comparisons test as this test is used for combined comparisons (more than two means) and for the equal and unequal sizes

The Results of the Study:

They include a presentation of the results reached to, after the data was collected by the study tools, and will be displayed according to the questions of the study sample.

Results related to the first question: What is the degree of school principals practicing innovation from the teachers' point of view?

To answer this question, the arithmetic averages and standard deviations of the teachers' estimates on the domains of practicing innovation among school principals was calculated. It was as it has been illustrate in Table No. (3)

Table (3) Arithmetic Averages and Standard Deviations of the teachers' estimations in the schools of Kufri Manda, in the domains of schools principals practicing innovation, arranged in descending order.

Rank	No.	Domains	Arithmetic Average	Standard Deviation	Practicing Degree
1	1	Encouraging Innovative ideas	4.09	0.60	Great
2	2	Developing school environment	4.06	0.63	Great
3	3	Solving innovative problems	4.00	0.66	Great
Practicing of Innovation as a whole			4.05	0.59	Great

Table (3) shows that the domain" Encouraging the innovative Ideas" has occupied the first position by an arithmetic average of(4.09) and by a standard deviation of (0.60) by a greater degree. The domain "Developing of School Environment" has come in the second position by an arithmetic average of (4.06) and by a standard deviation of (0.63) by a greater degree. The domain "Solving Innovative Problems" has come in the

last position by an arithmetic average of (4.00) and by a standard deviation of (0.66) by a greater degree. The arithmetic average of the teachers' estimations on the domains "School Principals Practicing Innovation" reached to (4.05) by a standard deviation of (0.59), it is contrasting great practicing degree.

Therefore, the results of this question that the degree of school principals practicing of innovation from the teachers' point of view which is included in the three domains was great, as the degree of school principals practicing innovation, according to the study domains, has come arranged as follows: encouraging innovative ideas, developing of school environment and solving of innovative problems, this indicates that the schools principals are qualified and capable of practicing innovation, supporting of the teachers and encouraging them to perform their duties. This result is attributed to that the school principals had participated in training programs that helped in developing their skills and practicing.

The arithmetic averages and the standard deviations of the teachers' estimations on the domains of the school principals' innovation practices were calculated, and were as follows:

The First Domain:

The arithmetic averages and the standard deviations of the teachers' estimations in Kufr Manda schools on paragraphs on this domain were calculated, and are as illustrated in Table (4).

Table (4) Arithmetic Averages and Standard Deviations of the teachers' estimations in the schools of Kufr Manda, in the domains of school principals practicing of Innovation, arranged in descending order

Rank	No.	Domains	Arithmetic Average	Standard Deviation	Practicing Degree
1	2	Providing required facilities for innovative teachers to render success to the instructional process.	4.24	0.6	Very Great
2	1	Promoting the competitive spirit among teachers in work.	4.20	0.83	Great
3	5	Avoiding scorning of strange ideas that are presented in the work environment.	4.10	0.77	Great
4	6	Encouraging teachers to enrich instructional curricula through creative activities.	4.10	0.64	Great
5	3	Accepting the new ideas presented by the teachers.	4.07	0.74	Great
6	4	Providing support to the innovative ideas makers.	4.00	0.71	Great
7	7	Paying attention to the teachers' personal lives.	3.39	0.89	Great
The Domain as a whole			4.09	0.60	Great

Table (4) shows that paragraph (2) which states "Providing required facilities for innovative teachers to render success to the instructional process", has occupied the first rank by an arithmetic average of (4.24) and standard deviation of (0.76) in a very great degree; paragraph (1) which states "Promote the competitive spirit among teachers in work", has come in the second rank by an arithmetic average of (4.20) and standard deviation of (0.83) in a great degree.

The results illustrated that the degree of schools' principals practicing innovation in the domain of encouraging innovative ideas was great, that could be attributed to the schools' principals cognition of the great importance of the teachers' professional development where the professional development achieves the performance and promotion level are acquired accordance with the scientific, the professional and cultural levels of the teachers, and acquires them potentials and skills that would enable them to face and solve the problems and be interested in the situations and problems that require one correct response or one correct result.

The Second Domain:

The arithmetic averages and the standard deviations of the teachers' estimations on the paragraphs of this domain were calculated, they are as illustrated in Table (5).

Table (5) Arithmetic Averages and Standard Deviations of the teachers' estimations in the schools of Kufri Manda, in the domains of improving school environment, arranged in descending order

Rank	No.	Domains	Arithmetic Average	Standard Deviation	Practicing Degree
1	15	The principal shows certain desire to develop the work.	4.27	0.79	Very Great
2	14	He possesses the images of drawing the future plans to encourage innovation among teachers.	4.24	0.81	Great
3	16	He presents the summary of his experience to the teachers.	4.08	0.81	Great
4	19	He goes along with new educational developments in order to enhance the work environment.	4.05	0.72	Great
5	21	He possesses the ability of adaptation with change.	4.04	0.81	Great
6	12	He provides the instructions required for the success of innovation.	4.03	0.70	Great
7	22	He adopts new methods in work.	4.01	0.79	Great
8	23	He utilizes the experiences and energies of the teachers to enhance the work environment.	4.01	0.77	Great
9	20	He avoids routine in the administrative work.	3.97	0.83	Great
10	24	He takes interest in the teachers' continuous training.	3.95	0.75	Great
11	18	He adopts new ideas in work and transmits them into real projects.	3.92	0.72	Great
The Domain as a whole			4.06	0.63	Great

Table (5) shows that paragraph (15) which states "The principal shows certain desire to develop the work", has occupied the first rank by an arithmetic average of (4.27) and standard deviation of (0.79) in a very great degree; paragraph (14) which states "He possesses the images of drawing the future plans to encourage innovation among teachers", has come in the second rank by an arithmetic average of (4.24) and standard deviation of (0.81) in a great degree; while paragraph(18) which states "He adopts new ideas in work and transmits them into real projects", has come in the last rank by an arithmetic average of (3.92) and standard deviation of (0.72) in a great degree; the arithmetic average of the teachers' estimations on the paragraphs of this domain as a whole reached to (4.06) and standard deviation of (0.63), it is corresponding to the estimation of practicing in a great degree.

The results illustrated that the degree of schools' principals practicing innovation in this domain was great, that could be attributed to the innovative aspects of the schools' principals which was high through the facilitating of the instructional environment appropriate for innovation; designing of organizational skeleton that ensures the comprehending of the employing of modern techniques; facilitating greater space of decentralization between the school administration and the educational administration: promoting the school management so as to cope with the employing of new techniques in work: training the teachers on the basis of innovative thinking and granting the innovators suitable nominal incentives.

The Third Domain

The arithmetic averages and the standard deviations of the teachers' estimations on the paragraphs of this domain were calculated, they are as illustrated in Table (6).

Table (6) Arithmetic Averages and Standard Deviations of the teachers' estimations, in the domains of solving creative problem, arranged in descending order

Rank	No.	Domains	Arithmetic Average	Standard Deviation	Practicing Degree
1	9	Proposing various solutions for the problem presented	4.05	0.85	Very Great
2	13	Granting full authorities to innovative teachers to solve problems	4.04	0.74	Great
3	8	Giving innovative solutions for problems	4.03	0.88	Great
4	10	Attempting new ideas in solving problems	4.01	0.76	Great
5	11	Motivating teachers to flexible in giving solutions	3.95	0.74	Great
6	12	Following the work process in the innovative ideas	3.95	0.76	Great
The Domain as a whole			4.00	0.66	Great

Table (6) shows that paragraph (9) which states "Proposing various solutions for the problem presented", has occupied the first rank by an arithmetic average of (4.05) and standard deviation of (0.85) in a very great degree; paragraph (13) which states "Granting full authorities to innovative teachers to solve problems", has come in the second rank by an arithmetic average of (4.04) and standard deviation of (0.74) in a great degree; while paragraph(12) which states "Following the work process in the innovative ideas", has come

in the last rank by an arithmetic average of (3.95) and standard deviation of (0.76) in a great degree; the arithmetic average of the teachers' estimations on the paragraphs of this domain as a whole reached to (4.00) and standard deviation of (0.66), it is corresponding to the estimation of practicing in a great degree.

Results related to the second question: 'What is the degree of the school teachers professional development from their point of view?'

To answer this question, the arithmetic averages and standard deviations of the teachers' estimates on the paragraph of the professional development among the teachers was calculated. It was as it has been illustrate in Table No. (7).

Table (7) Arithmetic Averages and Standard Deviations of the teachers' estimations, in the domains of enhancing school environment, arranged in descending order

Rank	No.	Domains	Arithmetic Average	Standard Deviation	Practicing Degree
1	9	Supporting the employment of computer and communication sets in producing computerized lessons.	4.38	0.58	Very Great
2	13	Providing technology tools for the service of Education.	4.34	0.59	Very Great
3	8	Aiming to equip the teachers with the skills of modern education methods.	4.32	0.75	Very Great
4	10	Following up the educational process.	4.30	0.81	Very Great
5	11	Motivating teachers to shoulder self responsibility towards self professional development.	4.20	0.73	Great
6	12	Giving teachers an effective role in implementing the academic plan.	4.20	07.0	Great
7		Providing supportive and secure educational environment.	4.20	0.70	Great
8		Encouraging teachers to link the academic subjects with the student's reality.	4.17	0.70	Great
9		Coordinating with the directorate to delegate the teachers to train them on assimilating technology with education.	4.15	0.69	Great
10		Following up the teachers' compliance to the recommendations and guidance of the educational supervisors.	4.15	0.64	Great
11		Supplying the fresh teachers with the required educational instructions.	4.15	0.79	Great
12		Providing teachers with the tools and equipment required for the educational activities.	4.12	0.73	Great
13		Communicating with the educational leadership on the means of curricula development.	4.10	0.69	Great
14		Giving attention to the views and suggestions of the teachers on the means of curricula development.	4.10	0.74	Great
15		Assisting teachers to conduct the educational researches that serve the educational process.	4.09	0.78	Great
16		Developing a program to exchange visits among teachers	4.38	0.79	Great
17		Teachers are nominated to join the training courses held by the Directorate.	4.34	0.74	Great
18		Encouraging work in the spirit of team to achieve the goals of the professional development.	4.32	0.80	Great
19		Encouraging the continuing of the educational developing of the teachers.	4.30	0.73	Great
20		Teachers are talked with about the enhancement of their cognition efficiency in their school subject.	4.20	0.86	Great
21		Facilitating the field and scientific visits.	4.20	0.72	Great
22		Guiding the teachers to develop examinations of evaluating the students innovative outcomes.	4.20	0.74	Great
23		Promoting the feeling of the teachers professional affiliation.	4.17	0.75	Great
24		Developing the teachers skills in the strategies of educational development.	4.15	0.70	Great
25		Holding periodical meetings to exchange the experiences among teachers.	4.15	0.74	Great
26		Giving the teachers the chances of participating in the educational conferences and forums.	3.98	0.65	Great
27		Supporting innovative teachers in their professional performance.	3.95	0.77	Great
28		Reviewing continuously the teachers training needs.	3.98	0.75	Great
29		Forming committees of the teachers to follow up the educational developments.	3.95	0.79	Great
30		Generalizing the distinguished teachers' experiences on the other colleagues.	3.98	1.00	Great
31		Observing the teachers training needs at the time of nominating them for the courses.	3.95	0.73	Great
32		Helping the teachers to gain the skills of formulating the goals.	3.98	0.73	Great
33		Involving the teachers in training courses to develop their technical skill.	3.95	0.77	Great
34		Providing the teachers with the scientific labs. And their requirements.	3.98	0.72	Great
35		Observing the teachers' desires and abilities when assigning the school activities.	3.95	0.82	Great
36		Encouraging the teachers to continue their higher studies in various degrees.	3.98	1.03	Great
37		Developing a program of exchanging visits among the teachers.	3.95	1.05	Great
The Domain as a whole			4.06	0.53	Great

Table (7) shows that paragraph (37) which states " Supporting the employment of computer and communication sets in producing computerized lessons ", has occupied the first rank by an arithmetic average of (4.38) and standard deviation of (0.58) in a very great degree; paragraph (36) which states " Providing

technology tools for the service of Education ", has come in the second rank by an arithmetic average of (4.34) and standard deviation of (0.59) in a very great degree; while paragraph(16) which states" Developing a program to exchange visits among teachers ", has come in the last rank by an arithmetic average of (3.73) and standard deviation of (1.05) in a great degree; the arithmetic average of the teachers' estimations on the paragraphs of their professional development as a whole reached to (4.04) and standard deviation of (0.53), it is corresponding to the estimation of practicing in a great degree.

The results are attributed to the fact that the teachers professional development has become the teachers' necessary target, that was through the teachers interest and attempt to achieve the education purposes and goals and their cognition of the extent of the importance of interaction with the techniques of information, communication and the requirement of following them and their following what is new in the domain of teaching strategies of education so as to be teachers capable of practicing their duties.

Results related to the third question: ' Is their Coefficient of Correlation of statistical significance ($\alpha \leq 0.05$), among the schools teachers estimations on the domains of schools principals practicing innovation and their estimations on the teachers, professional development?

To answer this question, the arithmetic averages of Pearson's Coefficient of Correlation among the means of the school teachers' estimation on the domains of the schools principals practicing innovation and their estimations on the school teachers innovation practicing. It is as it has been illustrate in Table No. (8).

Table (8) Pearson's Coefficient of Correlation among the means of the teachers' estimations, in the domains of the schools principals practicing innovations, and their estimations to the teacher professional development.

Vocational Development- Domains of Innovation Practice	Statistics	Teachers Vocational development
Encouraging Innovative Ideas	Value of Coefficient Correlation Statistics Significance	0.803 *0.000
Solving of Innovative problems	Value of Coefficient Correlation Statistics Significance	0.836 *0.000
Enhancing of Schooling Environment	Value of Coefficient Correlation Statistics Significance	0.886 *0.000
Practicing Innovation As whole	Value of Coefficient Correlation Statistics Significance	0.904 *0.000

Statistical significance at the level ($\alpha \leq 0.05$)

Table No. (8) shows that there is a positive correlation of statistical significance at the level ($\alpha \leq 0.05$), among the estimations of schools teachers in the domains of schools principals practicing innovations and their estimations to the schools teachers professional development. The results of the first question showed that there is positive correlation of statistical significance at the level ($\alpha \leq 0.05$) among the estimations' averages of schools teachers on the domains of schools principals practicing innovations and their estimations to the schools teachers' professional development. This result is attributed to that the creative principal concentrates on establishing a strong relation between himself and the teachers and that he encourages them to create and innovate; consequently such creation and innovation would lead to developing his profession through the empirical workshops and various programs which contribute to develop teacher' and students' innovation.

Results related to the fourth question: ' Is their difference of statistical significance at the level ($\alpha \leq 0.05$), among the study sample estimations in the domains of schools principals practicing innovation, according to the variables of sex, qualification and experience.

To answer this question, the arithmetic averages of the estimations of the sample individuals on the domains of the degree of the schools principals practicing innovation according to the variables of sex (male, female), qualification (diploma, bachelor, master and above) and experience (below 5 years, from 5 years to below 10 years, above 10 years? were calculated as follows:

The arithmetic averages and the standard deviation of the study sample individuals in the domains of the schools principals practicing innovation according to the variable of sex (male, female), were calculated and were as illustrated in Table No. (9):

Table (9) Arithmetic Averages and Standard Deviations of the study sample members' estimations, in the domains of the degree of practicing innovation by the schools principals, according to sex variable.

Domains	Sex	No.	Arithmetic Average	Standard Deviation
Motivating of innovative Ideas	Male	90	.412	.060
	Female	115	.406	0.59
Solving of innovative ideas	Male	90	.404	.063
	Female	115	3.98	.069
Developing of school environment	Male	90	4.09	0.60
	Female	115	4.03	0.65
Practicing innovation as a whole	Male	90	4.09	0.57
	Female	115	4.03	0.60

B-According qualification variable

The arithmetic averages and the standard deviation of the study sample individuals in the domains of the schools principals practicing innovation according to the variable of qualification (diploma, bachelor, master and above), were calculated and were as illustrated in Table No. (10):

Table (10) Arithmetic Averages and Standard Deviations of the study sample members' estimations, in the domains of the degree of practicing innovation by the schools principals, according to qualification variable.

Domains	Qualification	No.	Arithmetic Average	Standard Deviation
Motivating of innovative Ideas	Diploma+ Bachelor	139	4.11	0.59
	Master and Above	66	4.05	.060
Solving of innovative ideas	Diploma+ Bachelor	139	4.00	0.068
	Master and Above	66	4.02	.064
Developing of school environment	Diploma+ Bachelor	139	4.07	.065
	Master and Above	66	4.03	0.59
Practicing innovation as a whole	Diploma+ Bachelor	139	4.06	0.060
	Master and Above	66	4.04	0.57

C-According Experience Variable

The arithmetic averages and the standard deviation of the study sample individuals in the domains of the schools principals practicing innovation according to the variable of experience (below 5 years, from 5 years to below 10 years, above 10 years), were calculated and were as illustrated in Table No. (11):

Table (11) Arithmetic Averages and Standard Deviations of the study sample members' estimations, in the domains of practicing innovation by the schools principals, according to experience variable.

Domains	Qualification	No.	Arithmetic Average	Standard Deviation
Motivating of innovative Ideas	Less than 5 years	22	4.11	0.59
	From 5 years to less than 10 years	67	4.05	.060
	More than 10 years	116		
Solving of innovative ideas	Less than 5 years	22	4.00	0.068
	From 5 years to less than 10 years	67		.064
	More than 10 years	116		
Developing of school environment	Less than 5 years	22	4.07	.065
	From 5 years to less than 10 years	67	4.03	0.59
	More than 10 years	116		
Practicing innovation as a whole	Less than 5 years	22	4.06	0.060
	From 5 years to less than 10 years	67	4.04	0.57
	More than 10 years	116		

Tables Nos. (9,10,11) show that there are differences among the averages of the study sample individuals' estimations in the domains of the degree of schools principals practicing innovation according to the

variation of the variables of sex (male, female), qualification (diploma, bachelor, master and above) and experience (below 5 years, from 5 years to below 10 years, above 10 years), and to define the level of the statistical significance of such differences. The multiple variance analysis test was used, as is illustrated in Table No.(12)

Table No. (12) : Results of the multiple variance analysis test for the differences among the study sample individuals estimations in the domains of the schools' principals practicing innovations according to the variation of sex, qualification and experience variables.

Variables	Domains	Total Squares	Freedom Degrees	Squares Averages	F Value	Level of Statistical Significance
Sex Hotling Value =003.0=H =913.0	Encouraging Innovative Ideas	0.183	1	0.183	0.521	0.471
	Solving Innovative Problems	0.162	1	0.182	0.363	0.548
	Developing of School Environment	0.160	1	0.160	0.404	0.526
Qualification Hotling Value =011.0=H =533.0	Encouraging Innovative Ideas	0.134	1	0.134	0.380	0.538
	Solving Innovative Problems	0.030	1	0.030	0.067	0.796
	Developing of School Environment	0.054	1	0.054	0.136	0.713
Experience Walx Value =953.0=H =141.0	Encouraging Innovative Ideas	1.720	2	0.860	2.446	0.089
	Solving Innovative Problems	0.501	2	0.251	0.561	0.572
	Developing of School Environment	1.244	2	0.622	1.570	0.211
Error	Encouraging Innovative Ideas	70.314	200	0.352		
	Solving Innovative Problems	89.374	200	0.447		
	Developing of School Environment	79.215	200	0.396		

Table No.(12) shows

- 1-There are no differences of statistical significance at the level ($\alpha \leq 0.05$), among the averages of the sample members' estimations at all the domains of schools principals practicing innovation attributed to the sex variable.
- 2-There are no differences of statistical significance at the level ($\alpha \leq 0.05$), among the averages of the sample members' estimations at all the domains of schools principals practicing innovation attributed to the qualification variable.
- 3-There are no differences of statistical significance at the level ($\alpha \leq 0.05$), among the averages of the sample members' estimations at all the domains of schools principals practicing innovation attributed to the experience variable.

The triple variance test for the differences in the estimations of the study sample in the domains the degree of schools principals practicing innovation as a whole, according to the differences of sex (male, female), qualification(diploma, bachelor, master & above) and experience (below 5 years, 5 years to 10 years, above 10 years) variables. To determine the levels of the statistic significance of these differences the multiple variance analysis test was used as illustrated in Table No. (13)

Table No. (13) :The results of multiple variance analysis test for the differences among the study sample members estimations in the domains of the degree of the schools principals practicing innovation as a whole, according to the differences of sex, qualification and experience variables.

Variables	Total Squares	Degrees of Freedom	Squares Average	F Value	Level of Statistical Significance
Sex	0.161	1	0.161	0.462	0.497
Qualification	0.030	1	0.031	0.089	0.765
Experience	1.081	2	0.541	1.0553	0.214
Error	69.611	200	0.348		
Total	3441.076	204			

Table (13) shows that there are no differences at the level ($\alpha \leq 0.05$) among the averages of the study sample individuals' estimations in the domains of the degree of schools principals practicing innovation as a whole, attributed to sex, qualification and experience variables.

The results reached to the fact that there are no differences of statistical significance at the level ($\alpha \leq 0.05$) among the averages of the study sample individuals' estimations in the domains of the degree of schools principals practicing innovation, attributed to sex variable. This result could be explained by the existence of several common factors that contribute in the equivalence of the two sexes (male, female) most important of which that those schools principals had experienced the same similar conditions of learning and training before they joined the professional education practice, so also they had the same conditions of training in the programs professional development. Ultimately they all were distinguished in a way that their innovative and profession capabilities did not differ.

The results also revealed that there are no differences of statistical significance among the averages and estimations of the sample individuals in all domains of the degree of schools principals practicing innovation attributed to the qualification variable. This result could be explained by the training and skill level the schools principals of both sexes have experienced.

The results revealed as well that there are no differences of statistical significance at the level ($\alpha \leq 0.05$) among the averages of the sample individuals' estimations in all domains of the degree of schools principals practicing innovation, attributed to the experience variable. This result could be explained by that the individuals of the sample from both sexes have experienced the same educational and training skill levels in the proof qualifying the teachers as for the accompanied philosophy, goals and activities, and the ideal administrative means and methods of interaction with the teachers, therefore, their levels had come corresponding and similar. The results could also be explained due to the similarity in the teachers' social and economic environment. This may be attributed to the fact that the male and female teachers have a joint image about the nature of such skills that lead them to have a unified attitude towards their practicing of innovation

Results related to the fifth question: 'Are their differences of statistical significance ($\alpha \leq 0.05$), among the study sample estimations on the degree of professional development from the point of views of the schools teachers, according the sex, qualification

To answer this question, the arithmetic averages and the standard deviation of the estimations of the sample individuals on the degree of sex (male, female), qualification (diploma, bachelor, master and above) and experience (below 5 years, from 5 years to below 10 years, above 10 years) were calculated. In order to determine the levels of statistical significance of those differences the multiple variance analysis test was used as illustrated in Table No. (14):

Table (14) Arithmetic averages and standard deviations of the estimations of the sample members, on the degree of vocational development of the schools teachers, according to differences of sex, qualification and experience variables.

Domains	Qualification	No.	Arithmetic Average	Standard Deviation
Sex	Male	90	4.07	0.52
	Female	115	4.04	0.55
Qualification	Diploma+ Bachelor	139	4.04	0.56
	Master and Above	66	4.07	0.48
Experience	Less than 5 years	22	3.85	0.64
	From 5 to less than 10 years	67	4.16	0.49
	More than 10 years	116	4.03	0.53

Tables No. (14) shows that there are differences among the averages of the study sample individuals' estimations on the schools teachers degree of professional development from the teachers' point of view, according to the variation of the variables of sex (male, female), qualification (diploma, bachelor, master and above) and experience (below 5 years, from 5 years to below 10 years, above 10 years), and to determine the level of the statistical significance of such differences. The multiple variance analysis test was used, as is

illustrated in Table No.(15)

Table (15) The results of the triple variance analysis test for the differences among the estimations of the study sample members, on the degree of vocational development of the schools teachers, according to variables differences of sex, qualification and experience.

Variables	Total Squares	Degrees of Freedom	Squares Average	F Value	Level of Statistical Significance
Sex	0.064	1	0.064	0.227	0.634
Qualification	0.072	1	0.072	0.255	0.614
Experience	1.734	2	0.867	3.067	0.049
Error	56.459	200	0.283		
Total	3424.125	204			

Statistical significance at the level ($\alpha \leq 0.05$)

Table No. (15) Shows:

- 1- There are no differences of statistical significance at the level ($\alpha \leq 0.05$), among the averages of the sample members' estimations on the degree of professional development of the schools teachers, attributed to the sex variable.
- 2- There are no differences of statistical significance at the level ($\alpha \leq 0.05$), among the averages of the sample members' estimations on the degree of professional development of the schools teachers, attributed to the qualification variable.
- 3- There are no differences of statistical significance at the level ($\alpha \leq 0.05$), among the averages of the sample members' estimations on the degree of professional development of the schools teachers, attributed to the experience variable.

In order to determine the source s of those differences the Scheffe Test was used as is illustrated in

Table No. (16)

Table (16) Scheffe Test results of the differences among the sample members, on the degree of vocational development of the schools teachers, according to experience variables.

Experience	Arithmetic Average	Below 5 years	From 5 to below 10 years	Above 10 years
		3.85	4.16	4.03
Less than 5 years	3.85		0.31	0.18
From 5 to less than 10 years	4.16			0.13
More than 10 years	4.03			

Tables No. (16) shows that there are differences of statistical significance among the averages of the experienced estimations (below 5 years) on one hand and the experienced estimations (5 years to below 10 years) on the other hand, attributed to experience variable in favour of the experienced estimations (5 years to below 10 years).

The results of the study illustrated that there are no differences of statistical significance at the level ($\alpha \leq 0.05$), among the averages of the sample members' estimations on the degree of development for the schools teachers attributed to sex variable. The study also illustrated that there are no differences of statistical significance at the level ($\alpha \leq 0.05$), among the averages of the sample members' estimations on the degree of professional development for the schools teachers attributed to qualification variable. This result can be explained by the presence of certain common factors that contribute to the equivalence of the two sexes (male, female) went through similar cultural, social and economic educational conditions before the practicing of education profession.

Recommendations

- 1- To work for meeting the new training requirements for the schools principals especially with the tremendous development of technology in the communication media and education.
- 2- To conduct field studies on the degree of the effectiveness of the training programs provided to the schools principals and teachers.
- 3- To increase granting the suitable material and nominal incentives for innovators in schools work.

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