

The reality of building knowledge and understanding among the students of Public Secondary Schools from the point of view of teachers in Palestine

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الملخص

هدفت الدراسة التعرف إلى واقع بناء المعرفة والفهم لدى طلبة المدارس الحكومية الثانوية من وجهة نظر معلمي مدارس المحافظات الشمالية في فلسطين، استخدمت الدراسة المنهج الوصفي التحليلي، وتم استخدام الاستبانة كأداة الدراسة، وتكونت عينة الدراسة (٤٣٤) معلماً ومعلمة من معلمي المدارس الحكومية في المحافظات الشمالية من فلسطين، حيث تم اختيارهم بالطريقة العشوائية البسيطة. وأظهرت النتائج أن واقع بناء المعرفة والفهم لدى طلبة المدارس الحكومية الثانوية من وجهة نظر مديري ومعلمي مدارس المحافظات الشمالية في فلسطين جاءت بمتوسط حسابي (٣,٧٩) وبدرجة مرتفعة، حيث حصل كل من مجال "دور مدير المدرسة في بناء المعرفة"، "دور المعلمين في بناء المعرفة"، "إدراك مفهوم بناء المعرفة" على درجة مرتفعة، في حين حصل مجال "توفر متطلبات بناء المعرفة" على درجة متوسطة، كما أظهرت النتائج وجود فروق ذات دلالة احصائية في واقع بناء المعرفة والفهم لدى طلبة المدارس الحكومية الثانوية من وجهة نظر معلمي مدارس المحافظات الشمالية في فلسطين تعزى لمتغير الجنس لصالح الذكور في مجال "دور مدير المدرسة في بناء المعرفة"، ومجال "دور المعلمين في بناء المعرفة"، ومجال "إدراك مفهوم بناء المعرفة"، باستثناء مجال توفر متطلبات بناء المعرفة، ووجود فروق ذات دلالة تُعزى لمتغير المؤهل العلمي لصالح المعلمين الحاصلين على درجة البكالوريوس في مجال "دور مدير المدرسة في بناء المعرفة"، ومجال "دور المعلمين في بناء المعرفة"، ومجال "توفر متطلبات بناء المعرفة"، باستثناء مجال إدراك مفهوم بناء المعرفة.

كما أشارت النتائج إلى عدم وجود فروق ذات دلالة تُعزى لمتغير سنوات الخبرة، ويوصي الباحث أن يحفز مديري المدرس المعلمين على بناء المعرفة مع معلمي المدارس الأخرى من خلال التنسيق مع مديري المدارس لتنظيم الزيارات التبادلية. أن يحرص المعلمين على حضور الفعاليات التربوية التي تهدف لبناء المعرفة بين بعضهم البعض بالشكل الذي يثري معارفهم وخبراتهم ومهاراتهم، ضرورة وضع اليات الحوافز مادية ومعنوية من خلال الإدارة المدرسية بالتنسيق مع وزارة التربية والتعليم لتحفيز المعلمين على بناء المعرفة. ضرورة قيام وزارة التربية والتعليم برفد المدارس بالأجهزة التكنولوجية، وتوفير شبكة إنترنت داخل المدرسة تمكّن المعلمين من بناء المعرفة وتبادلها فيما بينهم بسهولة. أن تقوم الإدارة المدرسية بتوفير مكتبة إلكترونية متاحة ومفتوحة للمعلمين بأي وقت للحصول على المعرفة.

Abstract

The study aimed to identify The reality of building knowledge and understanding among the students of Public Secondary Schools from the point of view of teachers in Palestine .The study used the analytical descriptive approach and a questionnaire was used as the tool of the study. The study sample consisted of (434) male and female teachers from public schools in the northern governorates of Palestine where they were selected by simple random method. The results showed that the reality of building knowledge and understanding among public secondary school students from the point of view of the principals and teachers of the schools of the northern governorates in Palestine came with an arithmetic average of (3.79) and with a high degree.

Where each of the domains of "the role of the school principal in building knowledge", "the role of teachers in building knowledge", "realizing the concept of building knowledge" got a high degree while the range of "availability of requirements for building knowledge" got a medium score. The results also showed that there are statistically significant differences in the reality of building knowledge and understanding among secondary government school students from the point of view of the northern governorates school teachers in Palestine. It is attributed to the gender variable in favor of males in the field of "the role of the school principal in building knowledge", the field of "the role of teachers in building knowledge", and the field of "realizing the concept of building knowledge" with the exception of the field of availability of knowledge building requirements and the presence of significant differences attributed to the educational qualification variable in favor of teachers who obtained bachelor's degrees in the range of "the role of the school principal in building knowledge" the range of "the role of teachers in building knowledge" and the field of

"availability of requirements for building knowledge" with the exception of the field of realizing the concept of building knowledge.

The results also indicated that there are no significant differences due to the variable years of experience and the researcher recommends that principals motivate teachers to build knowledge with teachers of other schools through coordination with school principals to organize exchange visits. That teachers are keen to attend educational activities that aim to build knowledge among each other in a way that enriches their knowledge, experience and skills in addition to the necessity to develop material and moral incentive mechanisms through the school administration in coordination with the Ministry of Education to motivate teachers to build knowledge and the necessity of the Ministry of Education to supply schools with technological devices and the availability of an internet inside the school that enables teachers to build knowledge and exchange it among themselves easily.

Introduction:

Today's society is characterized by the flow of human knowledge, the diversity of intellectual, scientific, cultural and social achievements, the growth of technological innovations and economic ambitions. In all of this, the relationship between scientific and technological victories and the availability of information systems in various aspects of human activity has become stronger. Indeed, the features of this age are determined by the ability of its members to use knowledge and what it contains of intellectual assets, modern technological methods, the extent of their ability to absorb and use both information and knowledge and then the knowledge outcome of a society becomes the force that leads its present and secures its future as the strong nation is the most knowledgeable and the richest with its intellectuals and innovators who add to knowledge everything that is new.

In the light of this turbulent amount of knowledgeable changes and technological developments, it is the responsibility of the education system to innovate, generate and find renewable knowledge and disseminate it. Scientific research is considered an effective tool for finding knowledge where as effective teaching is considered as a means for disseminating that knowledge. Therefore, educational institutions must do their best and make more efforts to keep up with the society of knowledge because the individuals working in such institutions are forced to activate and manage the intellectual heritage in which they work in order to renew their ability to learn.

The responsibility of the teacher is considered to be an educational and social task that is not limited to students only but it is his responsibility to form the school knowledge community by building an integrated system of skills and knowledge, working to transfer, employ and apply them in education inside and outside the school. The

continuous developments in the methods, strategies and tools of education have imposed on teachers the necessity to produce and transfer knowledge (Ministry of Education, 2020)

Whereas the concept of building knowledge is one of the most important concepts that are commonly used in the school education sector in its various categories in the current age, as schools are interested in providing the best didactic and educational service for all students by following modern educational plans, methods and strategies that help to make the most of the experiences and skills of the teaching staff and invest them to provide a high level educational service to students.

And due to the great development witnessed by the educational sector in all its fields, it was necessary to encourage the use of the latest educational teaching aids, including: transferring knowledge between teachers and training them to use and develop this method and work to invest it in the right and required manner (Idhalama & Echedom, 2020)

Both the school principal and the teacher play an essential role in the educational process. The school principal is the leader who adopts plans that achieve the school's vision and objectives, the motivating force of the school community and the organizer of the administrative operations and school tasks, the follower and supervisor of the level of school performance. As for the teacher, he is the main element for advancing the educational process by creating a stimulating learning environment for students and ensuring the quality of education (Al-Mabrouk, 2017).

Knowledge building was defined as a process aimed at communicating both implicit and explicit knowledge and sharing it among individuals through communication with each other and

exchanging ideas, experiences and skills. And the skills of experienced teachers with experience and specialization and the transfer of their teaching skills to less experienced teachers and new teachers which increases their ability to provide the best possible educational service to students at school where the knowledge transfer process by developing the teaching competencies of teachers in a way that increases their ability to explain the class session in the best ways and possible methods (Al-Samarrai, 2016). On the other hand, building knowledge among teachers at school helps to transfer creative ideas. And it increases the ability of teachers to work together and enhances their self-confidence and their skills on one hand, and their trust in each other on the other hand. The process of transferring knowledge between teachers also contributes to the increase in their skills in explaining the classroom, using interactive and modern technological means such as: multimedia and computerized classes that help overcome boredom and stagnation that affect the joints of the classroom and add some fun and interactivity to it (Franklin, Hill, Dwyer, Hansen, Iveland & Harlow, 2016)

The importance of building knowledge among teachers is centered on increasing their ability to perform the educational tasks entrusted to them perfectly and enhancing their effectiveness, self-confidence and their ability to achieve the desired goals of the educational process. The use of methods and means of knowledge transfer is greatly reflected in the performance of the teacher who is considered the center of the educational process and one of the important factors affecting its success and benefit from it. The face-to-face transfer of knowledge between teachers at school is one of the means of exchanging knowledge among them through meetings and training courses which enable teachers to refine their experiences and educational teaching skills and develop their abilities to explain classes

and lessons with the required effectiveness (Guasch, González & Cortiñas, 2020)

A number of modern skills are used to facilitate the process of building knowledge at schools such as the use of modern information and communication technology to enable teachers to communicate and exchange experiences, skills and knowledge in an easy and accessible way that traverses time and space where modern means of communication help enable teachers with extensive skills and experience to easily transfer their knowledge to colleagues with limited teaching experience and skills (Al-Ja'idi, 2020)

The tremendous technological and technical development that the education sector is witnessing in the current age has enhanced the process of building knowledge between teachers and students smoothly as modern technology saves the time and effort that teachers spend in meetings, seminars and training courses directly, as they are now able to communicate with each other and attend courses and seminars through visual communication provided by modern means of communication and removing the barriers of time and space between them (Putra, 2020)

This study came in order to identify the reality of building knowledge and understanding among public secondary school students from the point of view of principals and teachers of schools in the northern governorates in Palestine

The study problem

Today, the world is considered the world of knowledge with distinction and that knowledge is a basic requirement of the requirements of the age of knowledge and technology revolution and that the process of building knowledge is one of the contemporary administrative concepts and an important resource to facilitate the

process of educational and pedagogical institutions towards achieving their educational and pedagogical goals and in particular at schools and that starting from the role of the school in generating, building, transferring, developing and organizing knowledge. The required changes must be brought about at all educational and pedagogical levels in a form that reflects in a positive way on the quality of the educational process and its outputs and gives the school a competitive privilege .

The process of building knowledge at schools among teachers is a major process to promote the level of education and achieve more creativity, distinction and efficiency as the teacher represents the hub of the educational process and the basis of its success and the teacher's individual role within the classroom is no longer adequate to meet the requirements of the changing and renewable school environment .Teacher's building knowledge, experience and ideas that he possesses to another teacher or student that contributes effectively in enriching and developing the knowledge of teachers and students (Al-Tawalbeh, 2016)

And through the experience and work of the researcher in the educational field, he noticed and felt that there are some aspects that may prevent the implementation of knowledge-building processes in schools in the way that should be, such as teachers' lack of keenness to attend dialogue activities aimed to build knowledge and experiences among them and to benefit from each other's experiences and skills through attending classes for their fellow teachers, in addition to the lack of knowledge-building requirements, such as a school database for building knowledge between teachers and students and modern technological means that help them build knowledge among themselves in addition to the need for training courses that contribute to that and there are many schools that do not have an organizational structure that

shows the trends of building knowledge within the school in addition to the absence of a system of material incentives to support the process of building knowledge among teachers. From here the problem of the study stems which seeks to answer the following main question:

What is the reality of building knowledge and understanding among public secondary school students from the point of view of teachers in the northern governorates schools in Palestine?

Objectives and Questions of the study :

The study aims to:

1. Identifying the reality of building knowledge and understanding among public secondary school students from the point of view of the northern governorates school teachers in Palestine.
2. To identify whether there were statistically significant differences between the averages of the study sample's responses to their estimates of the level of reality of building knowledge and understanding among secondary government school students from the point of view of the teachers of the northern governorates schools in Palestine (according to the gender ,educational qualification and years of experience variables.

To achieve the objectives of the study, the study seeks to answer the following questions

1. What is the reality of building knowledge and understanding among public secondary school students from the point of view of the northern governorates school teachers in Palestine?
2. Are there statistically significant differences ($\alpha = 0.05$) between the average responses of sample individuals for their estimates of the reality of building knowledge and understanding among public secondary school students from one point of view of the schools of the

northern governorates teachers in Palestine according to (variable s of gender)academic qualification and years of experience

The importance of the study

1.From the theoretical point of view, it is hoped that this study will contribute in the formation of a conceptual framework on building knowledge by identifying the concept of building knowledge, its importance, divisions, types, foundations and elements, and to form a starting point for other researches in the field of building knowledge and linking it to other variables or societies and to enrich the Arab and Palestinian libraries with recent information and results on building knowledge for researchers and educators.

2.As for the practical aspect: It is hoped that this study will benefit school teachers by increasing their awareness of the importance of building knowledge and circulate it among them and to apply and activate it because of its effective role in improving and developing the educational process or providing them with some methods and mechanisms for building knowledge and benefiting from it transferring their educational experiences, specifically in light of the rapid development in teaching methods and strategies .In addition, this study may also benefit the school administration in developing a clear vision and defining effective plans on how to activate the process of building knowledge among teachers inside and outside the school in a form that enriches their knowledge, skills and experiences and provides them with new knowledge. In a way that reflects positively on the educational process, in addition to the above, it is hoped that this study will benefit the Ministry of Education in activating the process of building knowledge through holding workshops and periodic meetings through which knowledge is transferred and shared between teachers and students from different schools.

Definition

Knowledge " is defined as the facts, information, concepts and beliefs that the individual possesses in his mind and uses them to carry out various tasks and make decisions" (Al-Maghrabi,) 2020

Knowledge construction: "It is the process which aims to communicate both implicit and explicit knowledge that is owned by the individual to other individuals and shared through a culture of social interaction and effective communication that aims to exchange ideas, suggestions, experiences and skills in a way that enables the recipient to obtain knowledge in a correct and effective way" (Al-Zaher and Al-Sarhan2022)

It is procedurally defined as: the science that contributes in refining the experiences and skills of government secondary school students in the Directorate of Education in Tulkarem through the exchange of experiences, skills, information, knowledge and ideas among them with the aim of improving and developing the educational process and upgrading the level of services provided to students that the degree of it will be measured through the response of the study sample on the study tool represented by the questionnaire.

The limits of the study**The limits of the study are as the followings:**

*Human limitations: Secondary Public School Teachers in the Northern Governorates of Palestine

*Spatial limits : Governmental schools in the northern governorates of Palestine.

*Time limits: The study was conducted in the second semester of the academic year 2022/2023.

*Objective limits : The reality of building knowledge in public schools.

Literature Review :

The theoretical literature referred to the concept of knowledge, its importance, types, characteristics and sources, then to the concept of building knowledge, its importance, requirements, obstacles, methods and the role of the school principal in enhancing the culture of building knowledge among teachers.

knowledge concept

Muhammad (2016) defined knowledge as" a set of ideas, capabilities, procedures, and laws on which decisions and work methods are based on . And it is the information that is organized, interpreted, and giving it meaning so that it becomes useful for making decisions and solving problems.

Al-Maghraby (2020) defines knowledge as" organizing and interpreting information in accordance with experiences, values, and skills in a way that allows understanding methods and facts in a clear manner and the possibility of applying them during practicing related activities and actions."

The importance of knowledge

The importance of knowledge lies in the fact that it contributes to the interpretation, description and understanding of emerging situations and phenomena related to the field of that knowledge and the ability to predict the future situation through understanding, analyzing, interpreting and understanding current phenomena and conditions. Thus controlling the expected events in a way that serves individuals and institutions . Knowledge also helps in improving , developing and keeping pace with continuous and accelerating changes in the world of knowledge. (Titi, 2010)

Knowledge characteristics

Knowledge is characterized as cumulative, that is, it increases and changes with the passage of time as there must be new knowledge

for each stage that is added to the old knowledge to become cumulative. In addition, knowledge is characterized as it it accept organization in a form that enables individuals to benefit from it and select the best of it. And it is renewable, as it does not remain the same, but is renewed at all times by constantly generating new knowledge and it does not perish with usage as it is permanently usable without being implemented or destroyed and it is subject to possession, so who holds it can possess it through storing, preserving, selling and giving it to whoever wants for free and it is also storable as it can be stored.

Study procedures:

Methodology:

The researcher used the analytical descriptive approach because it is considered an appropriate approach to achieve the objectives of the current study which is to identify the reality of building knowledge and understanding among public secondary school students from the point of view of the teachers of the northern governorates schools in Palestine.

Population

The study population consisted of all public school teachers in the schools of the northern governorates in Palestine during the second semester 2002/2023 and whose number was (4265) according to the statistics of the Ministry of Education.

Sample:

A simple random sample was chosen as representative of the study population and that was (434) male and female teachers from public school teachers in the northern governorates of Palestine, with a confidence margin of 95% and a margin of error of 5%. The size of the study sample was determined from the study population according to

the table for determining the sample size from the community. Thus, the study sample constituted approximately 10% of the total study population. Table (1) shows the distribution of the study sample according to demographic variables (gender, educational qualification and years of experience).

Table (1)

Distribution of the study population according to the study variables

variable	categories	frequency ;	ratio
gender	male	357	82.3
	female	77	17.7
qualification	total	434	100%
	Bachelor	319	73.5
	Post graduate	115	26.5
	total	434	100%
years of experiences	less than five years of experience	72	16.6
	from five years to ten years	256	59
	total	434	100%

Instrument :

A questionnaire was developed as a tool for collecting data from the study sample to find out the reality of building knowledge and understanding among public secondary school students from the point of view of the teachers of the northern governorates schools in Palestine.

In the design of the questionnaire, it relied mainly and mainly on the questionnaire of Al-Rashidi (2015), and Altawalbah (2016) while the

researcher relied on theoretical literature in designing the questionnaire in a secondary way, such as the study of Al-Samarrai (2016)

Table No. (2)

Strongly agree	Agree	Neutral	Disagree	Strongly disagree
5	4	3	2	1

The validity of the questionnaire :

To verify the validity of the questionnaire, it was presented to a group of arbitrators and specialists in the field of research in educational administration in Palestinian universities. The content of the study tool was validated, and the study tool became in its final form.

The reliability of the questionnaire :

The stability of the tool was confirmed by conducting the internal consistency test and extracting the stability coefficient (Cronbach alpha) on the entire study sample where the tool stability coefficient was (87.1%), which is a stability coefficient in the educational research

Study variables

The study includes the following demographic variables :

- A .Gender: It has two categories: male and female
- B. Educational qualification: It has two levels: Bachelor's degree and postgraduate studies.
- C. Years of Experience: It has three levels
 - .1.less than five years
 - 2.From five years to less than ten years.
 - 3.Ten years or more.

Statistical processors:

To answer the questions of the study, the appropriate statistical treatments were carried out after entering the data on the computer through the program (spss) and processing them statistically, where the arithmetic means and standard deviations were extracted for the study fields and for the tool as a whole

- 1.To answer the first question: the arithmetic means and standard deviations were extracted for the study sample's answer.
- 2.To answer the second question, the T-test was used for two independent samples.

Presentation and discussion of the results of the study

First: Results related to the first question

The text of the first question was: “What is the reality of building knowledge and understanding among public secondary school students from this point of view of the teachers of the schools of the northern governorates in Palestine.

In order to answer this question, the arithmetic means and standard deviations were extracted for the responses of the respondents (male and female teachers) to a questionnaire about the reality of building knowledge and understanding among public secondary school students from the point of view of the northern governorates schools in Palestine, and Table No. (3) shows that.

The reality of building knowledge and understanding among public secondary school students .

Table No. (3)

Range number	Range	Arithmetic mean	Standard deviation	Domain rank	Level
3	Realizing the concept of building knowledge	4.24	0.62	1	high
1	The role of the school principal in building knowledge	3.97	0.93	2	high
2	The role of teachers in building knowledge	3.88	0.82	3	high
4	The availability of the requirements of building knowledge	3.07	1.10	4	high
	Knowledge building score	3.79	0.71	1	high

It is noted from Table (3) that the reality of building knowledge and understanding among public secondary school students from the point of view of the teachers of the schools of the northern governorates in Palestine with an arithmetic mean of (3.79) and a standard deviation of (0.71) where the field of "Recognizing the concept of building knowledge" came in the highest rank. The first place with an arithmetic mean of (4.24), and a standard deviation of (0.62) with a high degree. The field of "The role of the school principal in building knowledge" came in the second place with an arithmetic mean of (3.97) and a standard deviation of (0.93) with a high **degree**, while the field of "the role of teachers in building knowledge" came in the third place with an arithmetic average of (3.88) and a standard

deviation of (0.82) and with a high degree. And in the fourth and last rank came the field of "availability of knowledge building requirements", with an arithmetic mean of (3.07), and a standard deviation of (1.10), with a medium degree

The results showed that the reality of building knowledge and understanding among secondary public school students from the point of view of the teachers of the schools of the northern governorates in Palestine came in a high degree with an arithmetic mean of **(3.79)**. The researcher attributes this result to the teachers' awareness of the importance of building knowledge and their realization of its important role in enriching their skills and experiences as well as the availability of readiness and personal readiness to build knowledge among them and the use of various means of building knowledge, in addition to the keenness to participate in meetings and training workshops that help them enrich their knowledge and the knowledge of other teachers. This result may be explained by the presence of a supportive and stimulating school environment for teachers which encourages them to build knowledge and share it among themselves through establishing strong relationships and cohesive groups and keeping communication channels open among them in a way that lets the flow of knowledge and the exchange of what they own of ideas as well as knowledge and experiences easily.

The result of the study agreed with the result of the study of Noor (2013Nor), the results of which showed that the degree of knowledge exchange between school teachers in the Keningau region was high. It also disagreed with the study of Al-Twalbeh (2016) the results of which showed that the degree the practice of the transfer process of knowledge in the Jordanian Ministry of Education and its principals had a mid average in the field of "the role of the school principal in building knowledge." Table (4) shows: the arithmetic

means, standard deviations, and the degree and ranks of the differences in the field of the role of the school principal in building knowledge.
arithmetic means, standard deviations

Table No. (4)

No	Paragraph	Arithmetic mean	Standard deviation	Rank	Score
1	The principal of the school encourages teachers to participate in training workshops related to knowledge acquisition.	4.28	0.96	1	high
2	The school principal encourages keeping communication channels open between teachers to build knowledge	4.21	1.06	2	high
3	The principal of the school is keen to hold periodic meetings.	4.07	1.01	3	high
4	The principal of the school is keen to invest the teachers' experiences to benefit from them in enriching knowledge in the school.	4.06	1.07	4	high
5	The principal of the school seeks to enhance the building of knowledge to	4.06	1.07	4	high

No	Paragraph	Arithmetic mean	Standard deviation	Rank	Score
	keep abreast of developments in school performance.				
6	The principal of the school seeks to establish a culture of building knowledge within the school.	4.00	1.10	5	high
7	The principal of the school is keen to transform the teachers' tacit knowledge into explicit knowledge.	3.91	1.08	6	high
8	The school principal adopts modern strategies to build knowledge between teachers and students	3.80	1.19	7	high
9	The principal of the school adopts contemporary leadership styles that help promote the transfer of knowledge among teachers.	3.79	1.19	8	high
10	The school principal encourages teachers to build knowledge with teachers in other schools	3.56	1.34	9	Average
11	The overall score	3.97	0.93		high

It is noted from table (4) that the degree of the school principal's role in building knowledge was high, with an arithmetic

mean of (3.97) and a standard deviation of (0.93). The standard deviations ranged between (0.96 - 1.34), and paragraph (2) came in the first rank which states that "the school principal encourages teachers to participate in training workshops related to the acquisition of knowledge" with an arithmetic mean of (4.28) and a standard deviation of (0.96), with a high degree while paragraph (7) got the last rank which states: "The school principal encourages teachers to build knowledge with teachers in other schools" with an arithmetic mean of (3.56) and a standard deviation of (1.34) and with a medium degree. The researcher explains this result by the presence of principals who have the ability to enhance knowledge-building practices within the school, by encouraging a culture of continuous learning among teachers and motivating them to benefit from each other's experiences through teamwork, cooperation, dialogue, effective communication and providing a school environment characterized by relationships. Positivity, keenness to organize meetings, and discussion panels periodically to exchange ideas, knowledge, and experiences among them. This result agreed with the result of the Khaza'leh study (2019) which showed that the degree of application of basic school principals in Mafraq governorate to knowledge management processes in the light of contemporary educational developments came with a high degree in all its fields and they are: knowledge application, knowledge generation, knowledge evaluation and knowledge distribution.

The results also showed that the paragraph that states "the school principal encourages teachers to participate in training courses for acquiring knowledge" came in the first place with an arithmetic mean (4.28) and a standard deviation (0.96) with a high degree. Developing their educational teaching skills, informing them of all that is new in terms of teaching methods and strategies and providing them

with the necessary knowledge to keep up with the continuous development in the teaching field and how to face the difficulties and challenges associated with this development.

While the paragraph that states "the school principal encourages teachers to build knowledge with teachers in other schools" ranked last with an arithmetic mean of (3.56) and a standard deviation of (1.34) with a medium degree. The researcher attributes this result to the principals' tendencies to pay more attention for building knowledge among teachers within the school itself in order to create a school learning environment that refines the capabilities and skills of teachers during official working hours and during the exercise of their teaching roles. Building knowledge within the same school is more smooth and flexible as building knowledge with teachers in other schools and he needs to organize meetings outside the official working hours.

The second range: the role of teachers in building knowledge:

Arithmetic means, standard deviations, grades, and ranks of the degree of the reality of building knowledge and understanding among public secondary school students were extracted from the point of view of the teachers of the northern governorates schools in Palestine for the paragraphs of the field of 'the role of teachers in building knowledge', as shown in **Table (5)** the role of teachers in building knowledge

Table N0 (5)

No	Paragraph	Arithmetic mean	Standard deviation	Rank	Score
1	I am keen to build knowledge with other teachers.	4.23	0.84	1	high
2	Teachers provide knowledge that their colleagues need.	4.01	0.99	2	high
3	My colleagues use social media to pass on their knowledge to others.	3.97	0.98	3	high
4	My colleagues are keen to document their knowledge	3.95	0.95	4	high
5	My colleagues are keen to obtain knowledge from its primary sources.	3.92	1.01	5	high
6	Old teachers are keen to provide new teachers with the knowledge they need	3.91	1.07	6	high
7	My colleagues use technology to build knowledge among themselves.	3.85	1.04	7	high
8	Colleagues are interested in the discussion aimed at exchanging knowledge in	3.81	0.99	8	high

No	Paragraph	Arithmetic mean	Standard deviation	Rank	Score
	the school				
9	My classmates have a desire to get new knowledge from other teachers.	3.81	1.03	8	high
10	My colleagues are keen to attend dialogue events aimed at transferring their experiences to others.	3.64	1.08	9	Medium
11	Teachers are keen to attend the classes of colleagues to benefit from their knowledge	3.61	1.16		Medium
12	The overall score	3.88	0.82		high

It is noted from table (5) that the degree of the role of teachers in the transfer of knowledge was high with an arithmetic mean of (3.88) and a standard deviation of (0.82), and the intervals came between the average and high degrees as the arithmetic means ranged between (3.61-4.23) and the standard deviation ranged between (0.84-1.16). Paragraph (12) came in the first rank which states "I am keen to exchange knowledge with other teachers, "with an arithmetic mean of (4.23) and a standard deviation of (0.84) with a high degree while Paragraph 20 got the last rank, which states: "Teachers are keen to attend the classroom sessions of colleagues to benefit from their knowledge", with an average of (3.61), and a standard deviation of (1.16), with a moderate degree.

This result is explained by the teachers' desire to transfer knowledge among themselves without monopolizing themselves and the availability of initiative towards transferring and acquiring it, and their realization of the value of giving by benefiting other teachers and helping them to develop themselves professionally. And improve its outputs and raise the level of the school.

The results showed that the paragraph that states "I am keen to build knowledge with other teachers" got the first rank with an arithmetic mean of (4.23) and a standard deviation of (0.84) and with a high degree. This indicates the availability of motivation and internal motivation among teachers to benefit from each other's experiences and seek to develop themselves and obtain new knowledge and their strong desire to raise the level of their professional performance. The researcher also attributes this to the intellectual openness owned by teachers and the presence of a high level of mutual trust among them. Whereas, the paragraph stating "Teachers are keen to attend class sessions for colleagues to benefit from their knowledge" ranked last with an arithmetic mean of (3.61), a standard deviation of (1.16) and with a moderate degree. This may be due to the teachers' tendency to benefit from each other's knowledge through direct contact with each other through dialogue and discussion sessions, and team work during free time or outside official working hours through social networks, the Internet and various means of communication, And as teachers may not have enough free time to enable them to attend classes for their fellow teachers, because they are busy giving classes and doing other school tasks.

The third area: realizing the concept of building knowledge:

The arithmetic means, standard deviations, grades, and ranks of the degree of the reality of building knowledge and understanding

among public secondary school students were extracted from the point of view of the laboratories of the northern governorates schools in Palestine for the paragraphs of the field of realizing the concept of building knowledge, as shown in Table (6)

the field of realizing the concept of building knowledge

Table No (6)

No	Paragraph	Arithmetic mean	Standard deviation	Rank	Score
1	Building knowledge among teachers contributes to improving teachers' performance.	0.74	4.40	1	High
2	Building knowledge among teachers contributes to developing their skills	0.75	4.35	2	High
3	Building knowledge among teachers requires not monopolizing knowledge	0.82	4.33	3	High
4	Building knowledge among teachers helps improve the quality of educational services provided to students	0.78	4.32	4	High
5	Building knowledge contributes to enhancing creativity among teachers	0.81	4.31	5	High

No	Paragraph	Arithmetic mean	Standard deviation	Rank	Score
6	The process of building knowledge among teachers has a positive impact on the course of the educational process	0.80	4.31	5	High
7	Building knowledge requires teachers to have effective communication channels between them.	0.77	4.30	6	High
8	Building knowledge among teachers contributes to keeping abreast of developments in the educational process.	0.76	4.28	7	High
8	Building knowledge among teachers increases their motivation towards work	0.87	4.24	8	High
9	The process of building knowledge among teachers raises the competitive advantage of the school	0.87	4.18	9	High
10	Building knowledge among teachers requires	0.84	4.15	10	High

No	Paragraph	Arithmetic mean	Standard deviation	Rank	Score
	knowledge transfer tacit to explicit knowledge				
11	Knowledge can be built among teachers collectively	0.90	4.07	11	High
12	Knowledge among teachers can be built up individually.	0.62	3.90		High
13	The overall score	0.62	4.24		High

It is noted from Table (6) that the degree of awareness of the concept of building knowledge was high which is with an arithmetic mean of (4.24) and a standard deviation of (0.62). The researcher attributes this result to the high degree of awareness owned by teachers regarding the concept of building knowledge as well as their awareness of the importance of learning new knowledge, not being satisfied with their available knowledge, and the role that knowledge building plays in promoting creativity and innovation in the school environment and promoting the experiences and skills of teachers, in addition to their awareness of the positive impact of building knowledge in raising the quality of the educational process and developing it and keeping up with everything that is new in the educational field. All the paragraphs came with a high degree and the arithmetic means ranged between (4.40-390) , the standard deviations ranged between (0.75-0.93) . Still, paragraph (22) came in the first rank which states: "Building knowledge among teachers contributes to improving teachers' performance," with an arithmetic mean of (4.40) and a standard deviation of (0.74)and with a high degree.

The researcher explains that the process of knowledge transfer helps teachers to acquire skills, experience and knowledge that they do not possess from other teachers so that they learn new strategies and various methods in a way that develops their abilities and enriches their knowledge in a way that reflects positively on their level of performance. This result is consistent with the findings of Ngozi's study. (Ngozi, 2018) the results of which showed that building knowledge can enhance the job performance of teachers by helping teachers to plan properly, develop the level of performance and improve teaching methods and that the transfer of knowledge enhances teachers' work in a team spirit which improves their job performance. However, Paragraph (31) came in the last place which states that "knowledge can be built among teachers individually" with an arithmetic mean of (390) , a standard deviation of (0.93) and with a high degree. The transfer of knowledge collectively contributes to the exchange of the largest possible amount of knowledge and benefit from the diverse experiences of teachers as each teacher possesses

The fourth range: Availability of knowledge transfer requirements

Arithmetic means, standard deviations, grades, and ranks of the degree of reality of building knowledge and understanding among public secondary school students were extracted from the point of view of the northern governorates schools' teachers in Palestine for the paragraphs of the field of availability of knowledge transfer requirements: the field of availability of knowledge transfer requirements

Table No. (7)

No	Paragraph	Arithmetic mean	Standard deviation	Rank	Score
1	The school has a database.	3.74	1.26	1	High
2	Access to the school database facilitates knowledge building among teachers	3.65	1.22	2	Medium
3	There is a system of moral incentives to support the process of building knowledge among teachers	3.12	1.37	3	Medium
4	The school has an open internet network for teachers	3.10	1.56	4	Medium
5	There are modern technological means in the school that help teachers build knowledge among themselves	3.06	1.33	5	Medium
6	The school provides training courses that contribute to building knowledge among teachers	3.04	1.34	6	Medium
7	The school has an	2.97	1.38	7	Medium

No	Paragraph	Arithmetic mean	Standard deviation	Rank	Score
	organizational structure that shows trends in building knowledge within the school.				
8	The school has an electronic library open to teachers	2.47	1.48	8	Medium
9	There is a system of material incentives to support the process of building knowledge among teachers.	2.44	1.45	9	Medium
10	The total score	3.07	1.10		Medium

It is clear from Table (7) that the degree of availability of knowledge building requirements was medium, with an arithmetic mean of (4.07), and a standard deviation of (1.10), and the paragraphs came between medium and high degrees and the arithmetic means ranged between (2.44-3.74), and the standard deviations ranged between (1.22-1.56). The researcher explains this result by not providing all the necessary requirements for the transfer of knowledge within the school due to the high cost of some of these requirements, specifically modern technological requirements such as the availability of an Internet network available to teachers. Within the school or the existence of an electronic library of the school, in addition to the lack of specialized training courses that play a very important role in the

transfer of knowledge among teachers. The researcher also explains this result by focusing on the school administration's orientation towards providing the necessary school requirements for students, such as computer laboratories, the library, science laboratories, the equipping of classrooms, the interest in the school's infrastructure and facilities and the lack of adequate attention to the requirements of building knowledge.

Paragraph (35) came in the first rank which states that "the school has a database" with an arithmetic mean of (3.74), and a standard deviation of (1.26) with a high degree. This explains the school administration's awareness of the importance of having a database that helps teachers access school data and information in any time and their ability to accomplish many school tasks easily and without any effort while the last rank came in paragraph (38) which states that "there is a system of material incentives to support the process of building knowledge among teachers" with an arithmetic mean of (2.44), a standard deviation of (1.45).) and to a medium degree. The researcher attributes this result to the fact that the availability of material incentives does not locate within the powers of the school administration but it locates within the authority of the Ministry of Education, as promotion and material incentives are given according to a set of criteria set by the ministry such as years of experience, academic achievement, conducting scientific research and more .

The results related to the second question which states: "Are there statistically significant differences ($\alpha = 0.05$) between the averages of the study sample's responses to their estimates of the reality of building knowledge and understanding among public secondary school students from the point of view of the teachers of the northern governorates school in Palestine according to the gender variable and

the educational qualification variable as well as the variable of years of experience.

First: The differences attributed to the gender variable

Table (8): The arithmetic means, standard deviations, and the results of the t-test for the independent samples to show the differences due to the gender variable in the reality of building knowledge and understanding among public secondary school students from the point of view of the teachers of the northern governorates school in Palestine .

The differences due to the gender

Table No. (8)

No	Range	Gender	No	Arithmetic mean	Standard deviation	Value T" degrees	Significant freedom	statistic indication
1	The role of the school principal in building knowledge	male	35	4.06	0.87	3.425	432	0.001*
		Female	77	3.60	1.11			
2	The role of teachers in building knowledge	male	35	3.93	0.77	2.381	432	*0.019
		Female	77	3.65	.0.98			
3	Understanding the concept of building knowledge	male	35	4.27	0.59	2.044	432	0.963*
		Female	77	4.11	0.70			
4	availability	male	35	3.06	1.10	.046	432	0.963*

No	Range	Gender	No	Arithmetic mean	Standard deviation	Value T ² degrees	Significant freedom	statistic indication
	requirements of knowledge building	Female	77	3.07	1.10			
5	Total marks	male	35	3.83	.383	2.533	432	0.012*
		Female	77	3.61	.393			

Statistically significant at the level of significance ($\alpha \leq 0.05$)

The results of Table (9) indicate that there are statistically significant differences at the level of significance ($\alpha \leq 0.05$) in each of the domain "the role of the school principal in building knowledge", the second domain "the role of teachers in building knowledge" and the third domain "realizing the concept of building knowledge". In addition to the presence of differences in the total score according to the gender variable, the level of significance was less than ($\alpha \leq 0.05$) which is statistically significant and the differences were in favor of males as the arithmetic mean for males was higher than for females. As for the field of knowledge building requirements, the results showed that there was no statistically significant difference at the significance level ($\alpha \leq 0.05$), as it was higher than ($\alpha \leq 0.05$), which is not statistically significant. This is due to the presence of a strong incentive among teachers to build knowledge and motivation to improve the level of performance based on what is characterized by male schools with better social relations, communication and cooperation compared to female schools and the availability of a school climate dominated by the spirit of teamwork, learning and love of development and achieving

advanced levels of school, and the ability of female teachers to communicate

Table No. (9)

No	Range	Gender	No	Arith metic mean	Standard deviation	Value T" degrees	Significa nt freedom	indication statistic
1	The role of the school principal in building knowledge	male	319	4.04	0.90	2.544	432	0.011*
		Female	115	3.79	1.00			
2	The role of teachers in building knowledge	male	319	3.98	0.77	3.855	432	*0.000
		Female	115	3.62	.0.88			
3	Understanding the concept of building knowledge	male	319	4.27	0.59	1.482	432	0.139
		Female	115	4.17	0.68			
4	availability requirements of knowledge building	male	319	3.15	1.07	2.560	432	0.011*
		Female	115	2.84	1.15			
5	Total marks	male	319	3.86	0.68	3.346	432	0.001*
		Female	115	3.60	0.75			

with each other better. As for the field of availability of knowledge transfer requirements, it is noted that there are no differences between males and females, and this confirms the agreement of both male and female teachers that attention to the :

Differences attributed to the educational qualification variable

Table (10): The arithmetic means, standard deviations, and the results of the t-test for the independent samples to show the differences that attributed to the educational qualification variable in the reality of building knowledge and understanding among public secondary school students from the point of view of the northern governorates schools' teachers in Palestine.

Statistically significant at the level of significance ($\alpha \leq 0.05$)

The results of Table (10) indicate that there are statistically significant differences at the level of significance ($\alpha \leq 0.05$) in the first domain, "the role of the school principal in building knowledge," the second domain, "the role of teachers in building knowledge," and the fourth domain, "availability of knowledge building requirements." In addition to the presence of differences in the total score according to the educational qualification variable, the level of significance was less than ($\alpha \leq 0.05$) which is statistically significant and the differences were in favor of teachers holding a bachelor's degree as the arithmetic mean for the bachelor's degree was higher than the postgraduate degree as for the domain of "understanding the concept transfer of knowledge" The results showed that there was no statistically significant difference at the level of significance ($\alpha \leq 0.05$) as it was higher than ($\alpha \leq 0.05$) which is not statistically significant. Their studies during the university years with their classmates with the aim of reaching more creative productions and their endeavor to benefit everyone with the experiences and knowledge they possess and transfer

which enhances their involvement in the school environment that is still new to them .

Third: The arithmetic means and standard deviations were calculated in the reality of building knowledge and understanding among public secondary school students from the point of view of the teachers of the northern governorates schools in Palestine according to the variable of years of experience (less than five years, from five years to less than ten years, ten years and more).

Table (10): one-way analysis of variance for the differences in the responses of the study sample according to the years of experience:

Differences attributed to the educational qualification variable

Table No. (10):

Range	source of variance	sum of squares	degree of freedom	mean of squares	, statistic	significance level
The role of the school principal in building knowledge between groups	Between groups	1.255	2	0.627	0.717	0.489*
	within groups	377.236	431	0.875		
	Total	378.491	433			
The role of teachers in building knowledge between groups	Between groups	0.200	2	0.100	0.149	0.862
	within groups	289.827	431	.0.672		
	Total	290.28	433			
Understanding	Between	0.522	2	0.261	0.688	0.503

Range	source of variance	sum of squares	degree of freedom	mean of squares	, statistic	significance level
the concept of building knowledge between groups	groups					
	within groups	163.663	431	0.380		
	Total	164.185	433			
Availability requirements Of building knowledge	Between groups	0.903	2	0.452	0.372	0.689
	within groups	522.631	431	1.213		
	Total	523.535	433			
Total degree	Between groups	0.396	2	0.198	.396	0.673
	within groups	215.677	431	0.500		
	Total	216.074				

Table (10) indicates that there are no statistically significant differences at the significance level ($\alpha \leq 0.05$) according to the educational qualification as the differences were higher than ($\alpha \leq 0.05$) in all areas of building knowledge and it is not statistically significant. The researcher explains this result that teachers in government schools have the same perception about the importance of transferring knowledge and applying its practices according to the different years of experience that they possess.

Recommendations

In the light of the results reached, the researcher presented a set of recommendations as follows:

1. The principals of schools have to motivate the teachers to build knowledge with the teachers of other schools through coordinating with school principals to organize exchange visits.
2. Teachers should be keen to attend educational activities that aim to build knowledge among each other in a way that enriches their knowledge, experience and skills.
3. It is vital to put in place financial and moral incentive mechanisms through the school administration in coordination with the Ministry of Education to motivate teachers to build knowledge..
4. It is necessary for the Ministry of Education to provide schools with technological devices and an internet network within the school that enables teachers to build knowledge and exchange it among themselves easily.
5. The school administration should provide an electronic library that should be available and open to teachers at any time to obtain knowledge

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