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Teachers' View of High School Principals' Support for the Use of technology as a tool for Meaningful Learning

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Abstract

This study conducted to determine the extent to which Teachers' View of High School Principals' Support for the Use of technology as a tool for Meaningful Learning. The study conducted during the second semester of the academic year 2016-2017, using the descriptive approach. The population consisted of all of the secondary schools in Bethlehem governorate and in Negev Sector, which were (94). The sample consisted of (276) teacher from both areas. The researchers used the questionnaire to achieve the goals of the study. The results showed that the role of principals in supporting meaningful learning from the teacher's point of view was high with a mean of (3.73). The result also revealed that there were no statistically significant differences in due to gender and academic qualifications. However, there were statistically significant differences due to years of experience in favor of less than (5) and location in favor of Negev sector. In light of the results, the researchers recommended that teachers should replace the traditional assessment to more meaningful assessment, apply technology applications at their work, and encourage the students to use the higher order thinking skills in their daily life. The principal should involve the meaningful learning spirit in building the school vision, and encourage cooperation between teachers rather than competition. The Palestinian Ministry of education should raise the awareness of the local communities about the importance of the meaningful learning at schools, to have more cooperation between the local communities and the schools, Adopting the Negev experience in implementing the meaningful learning theory, in order to apply it at the schools of Palestinian Ministry of education.

Keywords: High School Principals, technology, Meaningful Learning, Bethlehem Governorate, Negev Sector

Introduction

People can benefit from technology used in business, health, care, and manufacturing. This technology could be applied in education even before the spread of the internet. Teachers used to convey this knowledge through lecturing, discussions, and readings. While many teachers, principals and district administrators, use new forms of project-based curricula and performance based on assessment-where students get information from many sources. The role of their teachers is as a coach and manager.

Barron and D-Hammond (2008) pointed out that nowadays many scholars report about the need for powerful leadership where learning focuses on the demands of life to prepare the students for twenty-first-century skills. Teachers help in avoiding the traditional academic approaches and the narrow tasks that are not going to develop students' ability for critical thinking and writing. Stalheim (1998) added that life in schools focuses on learning. Teachers and principals learn continually as we teach and carry out our activities. They fight to improve learning environment and to facilitate learning for the students According to Ausubel (1963), educators have to reach the heart of the education process through deliberate attempts to influence cognitive structure to maximize meaningful learning. Sometimes, teachers find it difficult to achieve it without organizing the curriculum to provide for the traumatic introduction of new facts and concepts.

The father of meaningful learning is David Paul Ausubel. He developed an interesting theory. Ausubel believed that what influences learning is what the learners already know. Ausubel believed that deductive reasoning is the key to understanding concepts, principles, and ideas. Therefore, his theory relies on prior. New knowledge is added to the events and objects that we already possess. There is a need for the new knowledge to interact with the learner's knowledge structure as opposed to the rote memorization. Ausubel's learning theory was advanced by Gagne (1975) one of the behaviorist theorists. Gagne brought the best of behaviorism and cognitive. Gagne believes that learning results in behavior changes that are observable.

Novak (2002) explained that Ausubel's theory covers the whole learning process from the planning to the assessment and the application. Meaningful learning helps the learner choose conscientiously to integrate the new knowledge that learner already possesses. Scientists who studied human learning agreed that the meaning constructed by human beings at birth is faulty or limited. This faulty and limited meaning can distort new meaning construction.

Howland et al. (2012) pointed out that students mostly experienced standardized tests or memorized information. Schools have become testing factories. When students finish the high school they only know how to take tests, students seldom invest their knowledge in attempting to understand the knowledge being tested because the test is done individually. Through the testing process there will be no need for cooperative learning, students will not develop conceptual understandings, learning to take tests does not result in meaningful learning. Through meaningful learning, students have to be willfully engaged in meaningful tasks as well as engage in active, constructive, intuitional, authentic and cooperative activities. The role of schools is to teach students how to recognize and solve problems. In order

to achieve this goal, principals have to recognize and implement the curriculum around the meaningful learning activates.

According to Novak (2011), meaningful learning involves thinking and feeling. Rote learning studies recall information. Students are motivated only when they get the right answer. Whereas in meaningful learning students are rewarded intrinsically and there is usually a higher level of positive affect resulting. In rote learning, teachers tend to simplify the new knowledge and separate it from the real world. While in meaningful learning, teachers teach the new material with context.

Shelly et al. (2004) explained that it is important to understand the difference between today's digital generation and the previous ones. The previous generations of students were passive communicators, used to do single tasks, work-oriented, text-based first, and reality-based on learning. While in today's digital generation, the students are hyper communicators, multitaskers, digital and graphics first. The need for today's generation to be understood by their teachers and parents is essential because today's students think, absorb and apply information differently.

Carrington and Robinson (2009) added that students are surrounded by digital technologies, which affects their daily existence, these students are considered digital literate because they are able to develop digital textual landscape. Students convey reading and writing by using letters, images, and numbers electronically, which can attribute a rich and effective communication.

Ng and Szeto (2016) pointed out that in spite of the various challenges and multiple internally and externally imposed pressures, principals are expected to manage schools effectively, the need to equip and to develop skills are expected at every stage. The role of the principal has a dramatic change, in meeting the student's needs, expectations of teachers, parents and the community. Rigbi and Przybylski (2010) added that principals have to carry out tasks in managing, administrating, leading, counseling and even being a messenger.

According to Levine (2016) in order to meet these challenges, principals should implement changes in their schools. Experienced teachers need to change their approaches to teaching. Principals should imply a clear information and communication policy and meaningful professional development activities, strengthen a self-efficacy, subjective norm and attitude towards implementing digital learning materials (Vermeulen et al., 2015).

Shamir and Blau (2016) emphasized that It is important to have a digital wisdom: When teachers make a wise professional use of technology, a higher quality of teaching and learning, and improve digital competences of students, should be praised.Shelly et al. (2006) stated that people use technology for the good and the bad purposes, the schools must put standards to determine what is good and bad. Teachers' observation is important to prevent students from accessing unsuitable materials on the internet.

Teachers should effectively watch constantly the activities and direct the students whenever the students accede unappropriated material. Then the teacher must restrict the site by the filtering software. Moran et al. (2010) added that not only does technology make learning more efficient or

effective but also helps for problem solving. In addition, it improves academic success and increases equity of success of digital resources.

Sun et al. (2013) see that, through learning using a mobile phone, a user will interact and value the use of the mobile application for educational purpose. Ou-yang and Wu (2016) added that Mobile learning provides students with an opportunity to learn anytime. There is a growing interest from schools to use mobile technologies for educational purpose to improve students' learning performance; Teachers can add attraction features to mobile learning system to raise motivation for learning in lower proficiency students.

Li and Yang (2016) explained that through mobile phones, video resources (as an educational tool) students' satisfaction for learning will run smoothly. Students forget lessons rapidly; therefore, by using mobile devises students can review the material in their spare time. Learning styles and interests of students affect, the student's achievements have an impact on mobile learning performance.

Sun et al. (2013) mentioned in his study that teachers should provide basic instructions on how to use, log in, navigate, and download the applications. Some of the mobile initiatives allow students have access to their online courses from their mobile devices to complete certain tasks such as creating announcements, posting to discussion boards, checking grades, reading course content, assignments, and assessments. These tasks facilitate the adoption of technologies. Li and Yang (2016) explained that teachers should adjust the attitudes towards mobile learning by preparing learning materials in connection with their difficulties. The material should be relevant in designing mobile learning.

Shamir- Inbal and Blau (2016) added that wide ranges of cognitive and social skills are needed in the effective use of digital technologies. Mobile devices have also become the main platform for online gaming. Video games are used to enhance English-language learning and education settings through mobile and fix platforms. (Bolliger et al., 2015).

Wang et al. (2004) pointed that teachers' role in mobile learning will be the one of a mediator, a supporter, a facilitator and a guide during classes. This role helps teachers to monitor each student learning for guidance through a variety of activities. When a teacher is lecturing, the students will be busy taking notes.

Through using educational technologies, teachers can transmit contents and annotations to students, so they do not have to take notes, Teachers can observe each student learning, which helps him understand the progress of the student during the activities. Teachers can display questions on an electronic whiteboard and students can answer by voting which can offer immediate statistical results.

According to Bolliger et al. (2015) people used Digital games as an entertainment option, but playing and learning are connected theoretical. It has shown that the digital games can increase students' involvement. Games would allow students to experiment with knowledge and provide an opportunity to interact with classmates, enjoyment, and motivation.

Rigbi and Brzybylski (2009) added that today's games are filled with a wide array of narratives, challenge choice, and interpersonal interaction. Digital environments can address many meaningful skills to ensure that our

learners feel valued and relevant in the pursuit of meaningful learning goals. Video games have become a mainstream leisure activity for many people around the world, as a proof, there is a remarkable growth in the number of students who participate in adopting online games.

Gordan and Lowrey (2016) pointed out that many schools are using new IPads in their process of teaching because it combines several features such as lightweight and large multi-touch flat screen, which enables students to perform a variety of activities including reading, writing and drawing with finger steps. Shamir-Inbal and Shamir and Blau (2016) explained that Tablets are considered creative; they emphasize creative expansion of students' ideas; besides they increase student's participation and promote collaborative learning.

Khan (2005) added that these tools are helpful in E-Learning. E-learning: they can be viewed as an innovative approach for delivering well-designed, learner-centered, interactive, facilitated learning environment to anyone, any place, anytime by utilizing the attributes and resources of various digital technologies along with other forms of learning materials suited for open, flexible, and distributed learning environment.

When we understand the flexible, open and distributed learning environment that helps us create meaningful E-learning. Open learning means learning in your time and place, flexible means when, where and how the learning takes place. In meaningful learning, a careful content analysis is needed for effective learning. Experts must carry out the process of evaluating what is appropriate for teaching online, such as intensive behavioral modification, and complex physical skills. Teachers must report every success and failure of online learning. The designers can decide which content suits the face-to-face learning or suits the online learning.

According to Rigbi and Brzybylski (2009) is that one of the most important factors in mobile learning is attention, which refers to concentration. Students, who have high concentration in learning generally, have a positive attitude are motivated by achievements, high self-esteem and high self-efficacy. Ng and Szeto (2015) added that split-attention effects, which occur while using mobile learning, could be reduced by stimulating learners with mobile learning interests.

Gaps in the Literature

There is a huge gap in supporting the Use of technology as a tool for meaningful learning between the schools in the Negev Sector and Bethlehem governate. Many researchers tackled this issue in the Negev Sector, while schools in Bethlehem governorate lack of researches that study this issue.

The originality of the present study

Principals have an important role in supporting the Use of technology as a tool for meaningful learning, which has a pronounced positive effect in general. Education in the 21st century greatly needs such an approach in learning. Currently, the principal's role in supporting the Use of technology as a tool for meaningful learning is still ineffective. The researchers works as teacher and felt the importance of the principal's role in supporting the Use of technology as a tool for meaningful learning in both Bethlehem and Bedouin high schools.

The problem of the study is based on around the main question: To what extent do high school principals in the Bethlehem governorate and Negev Sector support meaningful learning from teachers' point of view?

Aim of the study

The purpose of the study is Examine teachers' perspectives to discover the extent to which high school principals in Bethlehem governorate and Negev Sector support the Use of technology as a tool for meaningful learning. To acknowledge if there are statistical differences by high school principals in Bethlehem governorate and Negev Sector from the teacher's point of view.

Research Question

The main question: To what extent Teachers' View of High School Principals' Support for the Use of technology as a tool for Meaningful Learning?

Based on the main question the following sub-question is formed:

Is there a difference in the extent of Teachers' View of High School Principals' Support for the Use of technology as a tool for Meaningful Learning due to gender, location, years of experience, academic qualification?

Study Hypothesis:

- There are no statistically significant differences at ($\alpha \leq 0.05$) of the extent of Teachers' View of High School Principals' Support for the Use of technology as a tool for Meaningful Learning due to gender.
- There are no statistically significant differences at ($\alpha \leq 0.05$) of the extent of Teachers' View of High School Principals' Support for the Use of technology as a tool for Meaningful Learning due to location.
- There are no statistically significant differences at ($\alpha \leq 0.05$) of the extent of Teachers' View of High School Principals' Support for the Use of technology as a tool for Meaningful Learning due to years of experience.
- There are no statistically significant differences at ($\alpha \leq 0.05$) of the extent of Teachers' View of High School Principals' Support for the Use of technology as a tool for Meaningful Learning due to academic qualification.

The significance of the Study

The importance of the study appears in focusing on a new approach in education, which is the Use of technology as a tool for meaningful learning. According to the researcher's knowledge, this research is the first to tackle this subject. This study is one of a few studies that make a comparison in fields of education between the Palestinian system and Negev system.

Definition of Terms

Technology: technology consists of two primary components: 1) a physical component which comprises of items such as products, tooling, equipments, blueprints, techniques, and processes; and 2) the informational component which consists of know-how in management, marketing, production, quality control, reliability, skilled labor and functional areas (Kumar et. al,1999)

Meaningful Learning: defined by (Ausabel, 2000) "refers to a learning way where the new knowledge to be acquired is in relation with acquire the relation or with previous knowledge" (p 64).

Bethlehem Governorate: Bethlehem Governorate is one of the largest West-Bank eleven governorates. It occupies 607.8 km2 of mass land and is bordered with Jerusalem Governorate in the North and Hebron Governorate from the South. The Western borders of Bethlehem Governorate are the 1949- Armistice Line (AKA: Green Line) that was demarcated by designated United Nation (UN) resolutions. The Governorate is distinguished by its topographic variability where the altitude ranges from the mountainous hills of Beit Jala that stand at 930 meters above Mean Sea Level (MSL) to as low as 412 meters below MSL along the shores of the Dead Sea that represent the Eastern border of the Governorate (page 2)

Bedouin Sector: Rudnitzky and Abu Rass (2012). "According to data from the Central Bureau of Statistics, in 2009 the Bedouin (Muslim) people of the Negev numbered 192,800 represent 27.4% of the total residents of the Negev (around 02,600). In 2009, the Bedouin citizens of the Negev constitute 15.6% of the total Arab population of Arab citizens Israel (1,239,230 not as well as the 296,370 Arab residents of East Jerusalem).

Methods (Design of the Study)

The current study adopted the descriptive analytical approach. After collecting the data, the researchers used the analytical-statistical method to answer the question of the study and interpreted the results.

Population and sample of the study

Population of the study

The population of the study consisted of all secondary school teachers in both Bethlehem governorate and Negev sector. The total Number of teachers was (2463) and the total Number of the secondary schools was (94).

Sample of the Study

From this population a (276) sample of teachers from a random cluster of twenty secondary schools were chosen to respond to the questionnaire.

Table 1. Statistical description of the research sample according to demographic variables

Demographic Variables		Frequency	Percent %
Gender	Male	135	49
	Female	140	51
	Total	276	100
Geographical area	Bethlehem	139	50
	Negev Sector	139	50
	Total	276	100
Years of experience	less than 5	107	40
	5-10	68	23
	more than 10	101	37
	Total	276	100
Qualification	Diploma	29	7
	BA	187	73
	Master and above	60	20
	Total	276	100

Instruments of the study

The researchers developed Questionnaire to examine the teacher's attitudes toward the extent to which a principal's in Bethlehem governorate and Negev sector support the use of technology as a tool for meaningful learning from teachers' point of view. The researchers developed the questionnaire, which consists of two sections. The first section included personal information about the respondents. The second section included (12) items, to investigate the role of principals in supporting the use of technology as a tool for meaningful learning" Here are some of the studies that helped the researchers in developing the questionnaire: Moran et al (2010), Allison et al (2015), Wang et al (2004), Bolligar et al (2015). Vermeulen et al (2015), Baran et al (2016). The researchers developed the questionnaire with 5-point Likert scales ranging from strongly agree - strongly disagree. The questionnaires were distributed to 240 teachers.

Validity of Instruments

To ensure that the content of the questionnaire was valid, it was handed to a jury of professional doctors in the field at Al-Quds, Bethlehem, Beir Zait Universities and educators in Negev. The Panel of judges were asked to evaluate the opportunities of the instrument to the whole purpose of the study. They accepted the items and the parts of the questionnaire, but they asked the researchers s to follow some modifications. The researchers took these recommendations into amount before issuing the final draft of the tool, and then the instrument was distributed to the subject of the study.

Reliability of Instruments

Cronbach's Alpha Value for the questionnaire was (94.6%) which is appropriate for the purposes of the study.

Procedures of the study

The study carried out in the following manner:

- The relevant literature reviewed to establish the theoretical background of the study.
- The population identified and the samples selected on which the instruments will be applied.
- The questions of the study put up, depending on previous studies.
- The reliability and validity of the instruments approved.
- A letter of permission obtained from the Ministry of education and higher education Directorate of Education/Bethlehem to facilitate the implementation of the research.
- The researchers themselves distributed the instruments on teachers in order to obtain valid and credible results.
- The instrument were distributed and gathered in the Second semester of the scholastic year 2016-2017.
- The data was gathered and analyzed by using SPSS program.
- The researchers explained the information to reveal whether the outcomes agree or disagree with previous studies.

Variables of the study

- Independent variables: Gender (Female/Male), Geographical area (Bethlehem/Negev) , Years of experience (less than 5, 5-10, more than 10), Qualification (Diploma, BA, Master and above).
- Dependent variables: the extent to which principals in Bethlehem governorate and Negev sector support the use of technology as a tool for meaningful learning from teachers' point of view.

Data Analysis

In order to analyze the data, the researchers used statistical Package for social science (SPSS), descriptive statistics (means, frequencies, percentage, and Std. Deviation) and inferential statistics. (Independent T-test, one-way ANOVA, LSD and Cronbach Alpha).

Results related to the first question

To what extent Teachers' View of High School Principals' Support for the Use of technology as a tool for Meaningful Learning?

Table 2. Means, Std. Dev. and degrees of the items of the questionnaire

#	Item	N	Mean	Std. Dev.	Degree
1	The principal encourages using the electronic learning in the class.	276	4	1	High
4	The principal strengthens using the electronic learning to increase the students' motivation through the meaningful learning.	276	4	1	High
8	The principal encourages the electronic learning because it increases the effectiveness of learning towards the meaningful learning.	276	3.9	0.8	High
2	The principal recommends using the electronic learning because it facilitates the leaning process.	276	3.9	0.8	High
5	The principal encourages the teachers to improve their electronic skills.	276	3.9	1	High
3	The principal encourages getting the feedback when using the electronic learning.	276	3.9	0.8	High
7	The principal brings the necessary tools and equipment to make the electronic learning easy.	276	3.9	0.8	High
6	The principal encourages taking part in workshops about the meaningful learning held by specialists in this field.	276	3.7	1.1	High
10	The principal encourages the teachers to improve their high order thinking skills.	276	3.5	1.2	Moderate
9	The principal encourages using the electronic games because they help in achieving the school goals through the meaningful learning program.	276	3.3	1.1	Moderate
12	The principal encourages distance learning classes	276	3.3	1.2	Moderate
11	The principal encourages the teachers to use the smart phones to evaluate the students.	276	3.3	1.2	Moderate
	Total	276	3.70	0.64	High

Results in this table show that the extent Teachers' View of High School Principals' Support for the Use of technology as a tool for Meaningful Learning was High, also it show that the 1st Item [The principal encourages using the electronic learning in the class] and the 4th Item [The principal

strengthen using the electronic learning to increase the students' motivation through the meaningful learning] were both came first with a mean of (4). The 8th Item [The principal encourages the electronic learning because it increases the effectiveness of learning towards the meaningful learning] came third with a mean of (3.9). The 11th Item [The principal encourages the teachers to use the smart phones to evaluate the students] and the 12th Item [The principal encourages distance-learning classes] came last with a mean of (3.3).

Results related to the second question:

Are there statistically significant differences between the means of the participant's responses duo to gender, location, years of experience, and academic qualification?

To answer this question, the researchers investigated the following hypothesis, which was based on:

Results related to the first Hypothesis:

There are no statistically significant differences at ($\alpha \leq 0.05$) of the extent of Teachers' View of High School Principals' Support for the Use of technology as a tool for Meaningful Learning due to gender.

To test this hypothesis, the researchers used independent t-test as table (3) shows: The results of independent t-test for the differences in participant's responses related to principal's support the Use of technology as a tool for meaningful learning due to gender.

Table 3. Results of the independent t-test for gender variable

Gender	N	Mean	Std. Dev.	Std. Error Mean	t	df	Sig.
Male	135	3.74	0.63	0.06	0.89	274	0.37
Female	140	3.67	0.65	0.06			

The results in table (3) show that the level of significance for the differences in participant's responses related to principal's supporting the Use of technology as a tool for meaningful learning due to gender is (0.98) this means that there are no statistically significant differences at ($a<0.05$). thus, the hypothesis is accepted.

Results related to the second Hypothesis:

There are no statistically significant differences at ($\alpha \leq 0.05$) of the extent of Teachers' View of High School Principals' Support for the Use of technology as a tool for Meaningful Learning due to location.

To test this hypothesis, the researchers used independent t-test as table (4) shows: The results of independent t-test for the differences in participant's responses related to principal's supporting the Use of technology as a tool for meaningful learning due to location.

Table 4. Results of the independent t-test for location variable

Geographical area	N	Mean	Std. Dev.	Std. Error Mean	t	df	Sig.
Bethlehem	139	3.38	0.49	0.05	-8.86	274	0.00
Negev	139	4.02	0.62	0.06			

The results in table (4) show that the level of significance for the differences in participant's responses related to principal's support the Use of technology as a tool for meaningful learning due to location is (0.00). This

means that there are statistically significant differences at (a<0.05). Which results in rejection of the Hypothesis.

By considering the means for both geographical areas, it shows that The Negev has the highest mean (4.2), therefore the statistical differences in favor of the Negev geographical area.

Results related to the third Hypothesis:

There are no statistically significant differences at ($\alpha \leq 0.05$) of the extent of Teachers' View of High School Principals' Support for the Use of technology as a tool for Meaningful Learning due to years of experience.

To test this hypothesis, the researchers used one-way ANOVA- test, table (5) shows: the distribution of the participant's responses related to principal's supporting the Use of technology as a tool for meaningful learning due to years of experience.

Table 5. Means, Std. Dev. And degrees of the items for years of experience variable

Years of Experience	N	Mean	Std. Dev.	Degree
Less than 5 years	107	3.85	3.9	High
Form 5 – 10 years	68	3.67	0.71	High
More than 10 years	101	3.56	0.64	Moderate

The results in this table (5) show that there is a clear difference between the means of the three levels for the years of experience. Therefore, the researchers used the One-Way ANOVA test as shown in table (6).

Table 6. The results of ANOVA- test for the differences in the participant's responses related to principal's supporting the Use of technology as a tool for meaningful learning due to years of experience.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.04	2	2.02	5.03	0.01
Within Groups	95.03	273	0.40		
Total	99.07	275			

The results in this table (6) show that the level of significance for the differences in the participant's responses related to principal's supporting the Use of technology as a tool for meaningful learning due to years of experience is (0.00) this means that there are statistically significance differences at (a<0.05). And thus, the hypothesis is rejected.

To clarify to whom the differences refer to, the researchers used the LSD (the less significant deference's test) as shown in table (7).

Table 7. The results of LSD test for the participant's responses related to principal's support to meaningful learning due to years of experience

(I) Experience	(J) Experience	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Less Than 5	5-10	.22343*	.09295	.017	.0403	.4066
	More than 10	.16469*	.08139	.044	.0043	.3250
5-10	Less Than 5	-.22343*	.09295	.017	-.4066	-.0403
	More than 10	-.05874	.09411	.533	-.2441	.1267
More than 10	Less Than 5	-.16469*	.08139	.044	-.3250	-.0043
	5-10	.05874	.09411	.533	-.1267	.2441

The result in table (7) shows that the statistically significance differences were between less than 5 and 5-10 levels and refers to less than 5 level. And between less than 5 and more that 10 levels and refers to less than 5 level.

Results related to the fourth hypothesis

There are no statistically significant differences at ($\alpha \leq 0.05$) of the extent of Teachers' View of High School Principals' Support for the Use of technology as a tool for Meaningful Learning due to academic qualification.

To test this hypothesis, the researchers used one-way ANOVA- test, table (8) shows: the distribution of the participant's responses related to principal's supporting the Use of technology as a tool for meaningful learning due to academic qualification.

Table 8. Means, Std. Dev. and degrees of the items for academic qualification variable

Qualification	N	Mean	Std. Dev.	Degree
diploma	29	3.86	0.49	High
BA	187	3.71	0.66	High
Master and above	60	3.82	0.65	High

The results in table (8) show that there is a clear difference between the means of the three levels for academic Qualification. Therefore, the researchers used the One-Way ANOVA test as shown in table (9).

Table 9. The results of ANOVA- test for the differences in the participant's responses related to principal's supporting the Use of technology as a tool for meaningful learning due to academic qualification

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	0.72	2	0.36	.87	0.42
Within Groups	98.35	273	0.42		
Total	99.07	275			

The Results in table (9) show that the level of significance for the differences in responses related to principal's support to meaningful learning due to academic qualification (0.07) this means that there are no statistically significance differences at ($a<0.05$). Thus, the hypothesis is accepted.

Conclusion

The study results showed that Teachers' View of High School Principals' Support for the Use of technology as a tool for Meaningful Learning was High, with a mean of (3.70) over/out of (5). The result also revealed that there were no statistically significant differences in due to gender and academic qualifications. However, there were statistically significant differences due to years of experience in favor of less than Five and location in favor of Negev sector.

Dissection of the results of the study

The researchers attributed Teachers' View of High School Principals' Support for the Use of technology as a tool for Meaningful Learning to the following: the fact that the modern ways of education depend on the use of technology in school. The wide spread of smart phones and tablets enabled students to absorb knowledge more quickly than the previous

generation. Teachers used technology to obtain the highest level of interaction of the students in classes and the use of technology in classes motivated the students to be more creative in doing the tasks.

The researchers attributed that there are no statistically significant differences with Teachers' View of High School Principals' Support for Meaningful Learning is high due to gender to the following: First, principals provided instructions for both male and female teachers without taking into account gender. Secondly, the Ministry of education in both Governorates provided counseling to all teachers. Thirdly, when universities train teachers, the teachers get the same training. Finally, Male and female teachers carry out their duties and responsibilities according to their experience and qualification.

The researchers attributed that there are no statistically significant differences with Teachers' View of High School Principals' Support for Meaningful Learning is high due to Location to the following: fact that the ministry of education in Negev adopted the Meaningful Learning Theory four years ago. Therefore, the ministry of education informed the principals about the need to change the way they run their schools. Principals participated in workshops to be trained to apply the meaningful learning program. Many principals in Negev were aware of the needs to equip their schools with the necessary tools such as tablets, computers etc. The principals in the Negev realized the importance of this trend, which is going to move the level of their students from traditional learning to more advance by making learning more meaningful for the students. The universities in Negev shared the ministry's vision in adopting the meaningful learning theory and planned. In addition, the ministry of education gave the students 30% of their final grade for each subject. Students can get the 30% for the meaningful learning tasks. The principals provided guidance to teachers to use the alternative assessment as a tool to evaluate the students. The new teachers who teach in The Palestinian Ministry of Education provide meaningful learning individually.

The Palestinian Ministry of Education did not adopt the meaningful learning theory, the principals and teachers did not receive training to accomplish this change, besides, the schools lacked of the tools to attain the meaningful learning needs. Teachers evaluate the students by using the traditional way, which contradicts with the spirit of the meaningful learning theory.

The researchers attributed that there are no statistically significant differences with Teachers' View of High School Principals' Support for Meaningful Learning is high due to years of experience to the following: the fact that the universities played an important role in training the new teachers to adopt meaningful learning as part of their daily work in schools. In addition, the new teachers practiced the components of the meaningful learning such as the alternative assessment, higher order thinking skills and using technology during their years of studies. The new teachers are familiar with the use of smart phones a technology, while, experienced teachers faced problems in adopting technology in their classes. The new teachers are more motivated to carry out the meaningful learning in schools because they can sense the students' progress since they use the same tools in real life with their students. The experienced teachers are often afraid of the change, which means that they have to attend more workshops to learn how to be more involved in meaningful

learning program. The experienced teachers needed to adjust their plans to meet with the requirements of the meaningful learning program, which is met most of the time with complaints and doubts about the effectiveness of this program.

The researchers attributed that there are no statistically significant differences with Teachers' View of High School Principals' Support for Meaningful Learning is high due to academic qualification to the following: the fact that Teachers share the same responsibilities and duties in schools while they are performing the same task. Therefore, the academic qualification they have does not make huge difference when teachers do the same work. All the teachers received the same instruction on how to implement the meaningful learning program. Many of the teachers earned their second degree in a different field from their first one, which did not help them much in improving their ways in adopting the meaningful learning program.

Limitations of the study:

The current study has the following limitations:

- This population study consisted of the High schools in Bethlehem Governorate and Bedouin sector in the south of Palestine.
- The study carried out in second semester of the academic year 2016-2017.
- The study was limited by the concepts and definitions mentioned in it.

Recommendations

In light of the results, the researchers recommended the following:

Regarding For Teachers

- Teachers (particularly Bethlehem governorate) should replace the traditional assessment to more meaningful assessment through using the Alternative assessment.
- Teachers (particularly Bethlehem governorate) should apply technology applications as part of their daily work.
- Teachers (particularly Bethlehem governorate) should encourage the students to use the higher order thinking skills in their daily life.

Regarding For Principals

- Principals should work more to enhance the meaningful learning program and providing the schools with workshops to train teachers to apply the meaningful learning program effectively.
- The principal should work more to involve the meaningful learning spirit in building the school vision.
- The principal should encourage the cooperation between teachers rather than competition.

Regarding For Decision-makers:

- Urging the Palestinian ministry of education to be more concerned about adopting the meaningful learning theory by increasing the

schools budgets, providing the needed tools and labs, as such been done at the Negev Sector.

- The Palestinian Ministry of education should raise the awareness of the local communities about the importance of the meaningful learning at schools, to have more cooperation between the local communities and the schools.
- Adopting the Negev experience in implementing the meaningful learning theory, in order to apply it at the schools of Palestinian Ministry of education.

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