

## The Extent to which High School Principals Support Meaningful Learning from teacher's point of view at Bethlehem Governorate and Negev Sector

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**Abstract:** This study was conducted to determine the extent to which high school principals in Bethlehem governorate and Negev sector support meaningful learning from teachers' point of view. The study was conducted during the academic year 2018-2019, using the descriptive approach. The population consisted of all the teachers of high schools in Bethlehem governorate and in Negev Sector. The sample consisted of (240) teachers. The researchers used a questionnaire for teachers which consisted of (38) items distributed over (3) domains. 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. 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.

**Key words:** Meaningful learning, Negev sector, Bethlehem governorate, Technology, Alternative assessment.

### المخلص

هدفت الدراسة التعرف إلى دور مدراء المدارس الثانوية في محافظة بيت لحم ومنطقة النقب في دعم التعليم ذو معنى من وجهة نظرهم أنفسهم. تم تنفيذ الدراسة في خلال الفصل الثاني من العام الدراسي 2016-2017، وتم استخدام المنهج الوصفي، حيث تكون مجتمع الدراسة من جميع مدراء المدارس الثانوية في محافظة بيت لحم، ومنطقة النقب، وتكونت عينة الدراسة من (240) معلماً ومعلمة من المنطقتين. واستخدم الباحثون أداة الاستبانة المكونة من (38) فقرة والموزعة على (3) محاور للتعرف إلى وجهة نظر المعلمين في موضوع الدراسة. أظهرت النتائج أن دور المدراء في دعم التعليم ذو معنى من وجهة نظر المعلمين جاء بدرجة مرتفعة بمتوسط حسابي (3.73)، كما أظهرت عدم وجود فروق دالة احصائية تبعاً لمتغيري الجنس، في حين أظهرت وجود فروق دالة احصائية تبعاً لمتغير سنوات الخبرة ولصالح فئة أقل من خمس سنوات، وتبعاً لمتغير المنطقة الجغرافية ولصالح منطقة النقب.

في ضوء نتائج الدراسة، أوصى الباحثون بضرورة قيام المعلمين باستبدال وسائل التقييم التقليدية بوسائل ذات صلة بالتعليم ذو معنى، وتوظيف التطبيقات التكنولوجية في عملهم، وتشجيع الطلبة على استخدام مهارات التفكير العليا في حياتهم اليومية، كذلك أوصو بضرورة اهتمام المدراء بتوظيف التعليم ذو معنى عند بناء رؤية المدرسة، وتشجيع التعاون بين المعلمين، وأخيراً أوصو بضرورة اهتمام وزارة التربية والتعليم الفلسطينية بزيادة إدراك المجتمعات المحلية بأهمية التعليم ذو معنى في المدارس، وتبني تجربة منطقة النقب في تطبيق التعليم ذو معنى في مدارسها بهدف تطبيقها في المدارس التابعة لوزارة التربية والتعليم الفلسطينية.

### THEORETICAL BACKGROUND

Barron and D-Hammond [1] pointed out that nowadays many scholars report about the need for powerful leadership where learning focuses on the

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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 [2] 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 [3], 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 [4] 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 [5] 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.* [6] 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 [5], 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.

### Meaningful learning definition

Harpaz [7] defined meaningful learning as "It is the rebuilding or the reorganization of knowledge that adds to the meaning of experience, and that increases the capacity to direct the course of subsequent experience.

On the other hand, it is a procedure in which the learner offers new meaning to his mental concepts, contents, ideas, insights, positions, attitudes that were learnt in the earlier and opens paths for learning more complex contents in the future.

Vallori [8] defined the meaningful learning according to Ausubel, "the most important single factor that influences learning is what the learner knew." Therefore, meaningful learning, which implies longer retention than memorizing, occurs when humans relate new concepts to pre-exist familiar concepts. Then, changes are produced in our cognitive structure, concepts are modified and new links are created. It is a useful tool because it enables real learning, it generates greater retention and it facilitates transferences to other real situations.

"Meaningful learning," by definition, involves the acquisition of new meanings. New meanings, conversely, are the end products of meaningful learning. That is, the emergence of new meanings in the learner reflects the prior operation and completion of a meaningful learning process. Ausubel [9].

### The role of principals in supporting meaningful learning

Abaya [10] emphasized that, managing competing tension and dilemmas need a successful leader. A successful leader should be able to run commuting as well as teaching and learning programs. Principals should be able to play the role of facilitators, share goals and trust. Levine [11]. Agreed that, this role enables principals to get of things a lot more easily when they have confidence in their teachers and students they help reinforce experience. Sharkey *et al.* [12] sees that, Principals and teachers' great challenge is how to shorten the gap between teachers and students and between students and curriculum. Teachers reported that their work increased student's motivation

and engagement. It fostered teacher-student relationship and valued the curriculum recourse.

Ng. *et al.* [13] stated that, a successful leadership skill should be comprised of conflict resolution, role modeling, team building, vision building (develop a common and shared vision), should include various stakeholders in the process of decision making, develop the professional development tool for leaders and involve parents and community in the process of school improvements. Miller *et al.* [14] explained that researches look for kinds of professional development that develops leaders who can improve teaching and learning and for ways of how to involve teachers in leadership development to implement positive change in their schools. Eger and Egerova [13] showed that, developing a successful educational reform requires effective leaders and managers. Principals can gain skills and knowledge from the experts in educational projects. Educational centers provide principals and deputy head teachers with training programs in labor law, and educational process and school financing. Training is to gain professional competencies. These courses are compulsory provided by the ministries of education.

Camburn *et al.* [15] pointed out that professional development for principals should be coherence, which provide principals with authentic collaborative learning and problem-based experience that affects principals' attitudes toward a successful school management. Levine [11] added that, any change in schools should be done with more experienced teachers who are going to change their approaches to their work. Miller *et al.* [14] see that if we want to improve school, we need to support and to develop leadership effective: a leader assumes that school is successful when the relationship between school leadership and student successful is makeable. Principals should break with the past norms and start building trust and be collaborate with their staff, so as to avoid being defensive and tried to the past to ease and support professional development in their schools. Levine [11].

### **The role of principals in supporting the alternative assessment**

Allison *et al.* [16] stated that in developed countries, schools are expected to provide learners with ways that lead to an active lifestyle by emerging their ways of understanding through evolving their experiences to make education more meaningful, relevant and engaging. Egalite *et al.* [17] Explained that Policymakers run the risk of rating student's development by raising standardized tests that focus on the cognitive outcome. Researchers are paying attention towards the importance of non-cognitive skills for students' outcome, but tend to ignore what ingredients are needed for students' success. Schools have a rich bank of cognitive measurement compared to

shortage selection in assessing students for non-cognitive measurement.

Egalite *et al.* [17] added that in early childhood programs, the social-emotional development is promoted. The institutions of higher education recognize the importance of the non-cognitive skills. Some universities evaluate their students on resilience and teamwork as well as the knowledge integrity, communication, and organizational skills. Allison *et al.* [16] showed that Project-based learning increase popularity in pedagogy. It builds knowledge from a variety of curriculum subjects, but if it is applied, it will lead to deeper learning, which creates opportunities for personal learning and avoid meaningless outputs, which means avoiding lack of learning motivation and communities of learning. Residential project work was important in contributing to (among other things) autonomy, a reassuring climate, an autonomous enthusiasm, a perceived competence and a task approach oriented towards a goal.

Lee and Lo [18] stated that accelerated school project improves educational quality through the school reform model. It depends on three principles. The first is that all school community shares the vision for the school, in order to achieve a powerful learning by setting their goals together. Secondly, all participants share the responsibilities for the outcomes because they are empowered to take part in the decision-making process. Thirdly, the school community should realize, making use of the knowledge, talent, and resources of every member of the school community. This change has to cover the entire school.

Baran *et al.* [19] agreed that when teachers adopt mobile learning, it enhances teachers with mobile tools, knowledge, and skills to carry out mobile in their classes. Therefore, the need for criteria for evaluating educational mobile applications is essential to evaluate the effectiveness of mobile learning environments. Teachers have to adopt rubrics and tools related to authenticity, social interactivity, portability and personalization to fulfill assessment meaningfully. Fisher *et al.* [20] suggested that in order to make professional development accessible, it is important that teachers embrace computerized programs to build effective and improve students' outcomes.

### **The role of principals in adopting the use of technology**

Shelly *et al.* [21] 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 [22] 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.

According to Levine [11] 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.*[23]

Shamir and Blau [24] 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.* [21] 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.* [25] 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.* [26] see that, through learning using a mobile phone, a user will interact and value the use of the mobile application for educational purpose. Ouyang and Wu [27] 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 [27], 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 devices 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.

Wang *et al.* [28] 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.

There are several studies conducted to deal with the concept and theory of the study domains; meaningful learning, alternative assessment and use of technology.

Daniel T. Bressington *et al.* [29]: This study aimed to test the appropriateness and feasibility of assessing Novak's concept mapping as an educational strategy to strengthen the theory-practice link, encourage meaningful learning and enhance learning self-efficacy in nursing students. Design: This pilot study utilized a mixed-methods quasi-experimental design. Setting: The study was conducted in a University school of Nursing in Hong Kong. Participants: A total of 40 third-year pre-registration Asian mental health nursing students completed the study; 12 in the concept mapping (CM) group and 28 in the usual teaching methods (UTM) group. Methods: The impact of concept mapping was evaluated thorough analysis of quantitative changes in students' learning self-efficacy, analysis of the structure and contents of the concept maps (CM group), a quantitative measure of students' opinions about their reflective learning activities and content analysis of qualitative data from reflective written accounts (CM group). The results provide preliminary evidence that the concept mapping approach can be useful to help mental health nursing students visualize their learning progress and encourage the integration of theoretical knowledge with clinical knowledge. Combining concept mapping data with quantitative measures and qualitative reflective journal data appears to be a useful way of assessing and understanding the effectiveness of concept mapping. Future studies should utilise a larger sample size and consider using the approach as a targeted intervention immediately before and during clinical learning placements.

Tomi Kärki *et al.* [30]: The authors consider the use of mobile learning environment Action Track in teacher education. Pre-service class teachers' ( $N = 277$ ) experiences of the mobile learning environment were measured with a 7-point Likert-scale questionnaire based on seven attributes of meaningful learning. Students' ratings for different attributes were analysed quantitatively. The authors conclude that, based on this analysis, it is possible to create meaningful learning

experiences using ActionTrack. All the measured attributes of meaningful learning obtained positive values. In the mobile learning events of this study, three attributes arose as the essential features: mobile learning in the outdoors was primarily considered collaborative, active and contextual.

Al Azzam [31]: this study aimed to measure the use of smart phones in education: field study from educational technology students' point of view in Jordanian private universities. To achieve the objectives of the study, a questionnaire was developed in (20) items. The study used descriptive approach, by distributing the questionnaire to all the study samples of technology students in Jordanian private universities during the whole 2017/2016 academic year. The study reached several conclusions, including: the use of smart phones in education of educational technology was, on average, and it showed there's no statistically difference significant at ( $\alpha \leq 0.05$ ) in the use of smart phones in education: field study from educational technology students' point of view in Jordanian private universities. Attributable to the three variables of the study: Year, University and educational level. The study recommended holding special courses for both students and teachers to use all the available tools in education.

Ahmed Al-Thawabiya and Khalid Al-Saudi [25]: The aim of this study was to identify the obstacles hindering the implementation of realistic evaluation strategies and tools from the point of view of Islamic education teachers in Tafileh Governorate according to their gender, qualifications and years of experience. The school community consisted of (140) teachers and teachers, Responded to them (49). To achieve the goal of the study, a questionnaire was developed consisting of (26) Items divided into four dimensions. As has been confirmed the tool is reliable and stable. The study showed that the obstacles related to the conditions of application came first, followed by obstacles. Obstacles related to the school curriculum, and the obstacles related to students ranked last, there are significant differences between the mean of the real-time constraints, due to the period of study in the fields of ( $\alpha$  statistically significant at 0.05) and no significant differences were found due to the rest of the variables or interactions between them.

Ashraf Attia Fouad Mustafa [32]: this study aims at identifying the status of practicing Alternative Assessment by the Islamic education teachers of the elementary schools in Gaza. To achieve the above objective, the researcher used the descriptive analytical approach to conduct this study. The researcher also designed the tools of the study, which are a questionnaire and a focal group to collect the necessary data. The researcher also selected all the teachers of Islamic education in the elementary stages in the directorate of education in the middle governorate

whose number was (24 male teachers) and (91 female teachers) as the study sample.

Camburn *et al.* [15]: conducted a study in United States aimed at examining the potential benefits, limitations, and challenges involved in using experiments to evaluate professional development for principals. The study was based on urban schools district with 48 principals. It describes the intended curriculum developing attendance records, and interview data. There is a growing belief that professional development for principals that has coherent, research-based content and that provides principals with authentic, problem-based, collaborative learning experiences can be effective in improving principals' practice. It is also assumed that the program would likely have no effect on principals' emphasis on instructional leadership of planning. The DPD may have had a short-term impact on the amount of time principals spent planning and setting goals.

## PROBLEM STATEMENT

Principals have an important role in supporting meaningful learning, which has a pronounced positive effect in general. Education in the 21<sup>st</sup> century greatly needs such an approach in learning. Currently, the principals' role in supporting meaningful learning is still ineffective. The researchers work in the field of education and felt the importance of the principals' role in supporting meaningful learning in both Bethlehem and Negev 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?

This study aims to examine teacher perspectives to discover the extent to which high school principals in the Bethlehem governorate and Negev Sector support meaningful learning. To acknowledge if there are statistical differences in supporting meaningful learning by high school principals in Bethlehem governorate and Negev Sector from the teacher perspective.

## QUESTIONS OF THE STUDY

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?

**Based on the main question, the following sub-question is formed**

Is there a difference in the extent to which high school principals in Bethlehem governorate and Negev Sector support meaningful learning from teachers' point

of view due to gender, location, and years of experience?

### Study Hypothesis

- There are no statistically significant differences at ( $\alpha \leq 0.05$ ) in the means of the study of the extent to which high school principals in the Bethlehem governorate and Negev Sector support meaningful learning from teacher's point of view due to gender.
- There are no statistically significant differences at ( $\alpha \leq 0.05$ ) in the means of the study of the extent high school principals in Bethlehem governorate and Negev Sector support meaningful learning from teacher's point of view due to location.
- There are no statistically significant differences at ( $\alpha \leq 0.05$ ) in the means of the study of the extent to which high school principals in Bethlehem governorate and Negev Sector support meaningful learning from teacher's point of view due to years of experience.

### Significance of the Study

The importance of the study appears in focusing on a new approach in education, which is Meaningful Learning. According to the researcher's knowledge, this research is the first to tackle this subject.

### Limitations of the study

**The current study has the following limitations:**

- This population study consisted of the High schools in Bethlehem Governorate and Negev sector in the south of Palestine
- The study was carried out in the academic year (2018-2019).
- The study was limited by the concepts and definitions mentioned in it.

### Definition of Terms

Meaningful Learning: defined by [33] "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).

Procedural definition: Meaningful Learning: In order to achieve understanding, any new content should be meaningful, and the learner has to relate it to prior knowledge in a meaningful way by using authentic learning and his own experience.

Bethlehem Governorate: Bethlehem Governorate is one of the largest West-Bank eleven governorates. It occupies 607.8 km<sup>2</sup> 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).

Negev Sector: Rudnitzky and Abu Rass [34]. "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 of the study

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

### Sample of the Study

From this population at (240) sample of teachers from a random cluster of twenty secondary schools were chosen to respond to the questionnaire.

### Instruments of the study

The researchers developed questionnaire to examine the teacher's attitudes toward the extent to which a principal in Bethlehem governorate and Arab schools in Negev support meaningful learning from teachers' point of view. The researchers developed the questionnaire, which consists of two sections with (38) items. The first section included personal information about the respondents. The second section included three domains, the first field was entitled "the role of principals in supporting the meaningful learning" that included (14) items, and the second field was entitled "the role of the principals in supporting technology in schools" with (12) items. The third field entitled "the role of principals in supporting alternative assessment" that included (12) items. Here are some of the studies that helped the researcher in developing the questionnaire: Moran *et al.* [35], Allison *et al.* [16], Wang *et al.* [28], Bolligar *et al.* [16]. Vermeulen *et al.* [23], Baran *et al.* [19]. 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, these instruments were 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 was 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 to follow some modifications. The researchers took these recommendations into amount before issuing the final drafts of the tool, and then the instrument was distributed to the subject of the study.

**Reliability of Instrument**

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

**Variables of the study**

- Independent variables: Gender (Female/Male), Geographical area Bethlehem/Negev, Years of experience (less than 5, 5-10, more than 10).
- Dependent variables: the extent to which principals in Bethlehem governorate and Arab schools in Negev support 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).

**RESEARCH FINDINGS**

To answer the question, mean scores and Std. Dev. And other statistical tests were calculated. To determine the level of agreement, the researchers used the following **clues** by using this equation:

$$\begin{aligned} \text{Interval width} &= \text{maximum point} - \text{minimum point} / \text{number of levels} \\ &= 5 - 1 / 3 \\ &= 1.33 \end{aligned}$$

- a. Less than 2.33 = low level of attitude (L).
- b. From 2.34 to 3.66 = moderate level of attitude (M).
- c. More than 3.67 = high level of attitude (H).

**Results related to the first question**

To what extent do high school principals in Bethlehem governorate and Negev sector support meaningful learning from teachers' point of view?

**Table-1: mean scores and Std. Dev. and degree of all domains.**

#	Domain	N	mean	Std. Dev.	degree
1	The role of the principals in supporting the meaningful learning.	240	3.78	0.55	high
2	The role of the principals in supporting alternative assessment.	240	3.71	0.66	high
3	The role of principals in supporting the use of technology	240	3.70	0.64	high
	<b>Total</b>	<b>240</b>	<b>3.73</b>	<b>0.54</b>	<b>high</b>

As seen in the above table, the results show that principals support meaningful learning with high degree; the highest degree was for the first domain with a means is (3.78). The lowest degree was for the third domain (3.70).

degree, with a mean of (3.78) due to the principal's awareness of their role the school. Principals are spending more time in planning and developing their school these days. Principals are more involved in the teaching process; they are the resident supervisors, instructors, and the role model for their teachers.

The domain of the role of the principal in adopting meaningful learning came first with high

**Table-2: Means, Std. Dev. and degrees of the items of the first domain**

	Item	N	Mean	Std. Dev.	Degree
4	The principal shows a great respect to the teachers.	240	4	0.9	High
3	The principal encourages presenting new ideas in the meetings.	240	4	0.9	High
1	The principal encourages using different education methods suit the meaningful learning.	240	3.9	1	High
13	The principal encourages the teachers to cooperate in establishing new vision and planning the school goals.	240	3.8	0.8	High
5	The principal encourages the cooperation between the administration and the teachers.	240	3.8	0.9	High
2	The principal supports the cooperation in taking the resolution in the school.	240	3.8	1	High
6	The principal encourages the professional development among teachers.	240	3.8	1	High

12	The principal prevails appreciation for suggesting ideas to develop the educational process.	240	3.8	0.9	High
8	The principal gives the feedback continuously.	240	3.7	0.9	High
11	The principal encourages the teachers to express their opinion in different educational issues.	240	3.7	0.9	High
7	The principal observes the teachers in the classes	240	3.7	0.8	High
9	The principal gives guidance for every new teacher.	240	3.7	1.1	High
14	The principal holds regular meetings to cope with the meaningful learning.	240	3.7	1.1	Moderate
10	The principal uses the methods of reward and punishment to implement teaching	240	3.6	0.9	Moderate
<b>Total</b>		<b>240</b>	<b>3.78</b>	<b>0.56</b>	<b>high</b>

Results in this table show that the 4<sup>th</sup> Item [The principal shows a great respect to the teachers] and the 3<sup>rd</sup> Item [The principal encourages presenting new ideas in the meetings] were both came first with a mean of (4), the 1<sup>st</sup> Item [The principal encourages using different education methods suit the meaningful learning] came in third its mean (3.9). The 10<sup>th</sup> Item [The principal uses the methods of reward and punishment to implement teaching] came last its mean (3.6), the 14<sup>th</sup> Item came before the last Item its mean (3.7).

The domain of the role of the principal in supporting the alternative assessment came second with high degree; its means was (3.71) due to the effectiveness of the alternative assessment in evaluating students. Alternative assessment tasks strengthen the relation between the students and teacher. Alternative

assessment tasks affected the school atmosphere positively through building the trust between students and teachers, close cooperation with the teachers and students felt that they receive the attention from the school.

The domain of the role of the principal in supporting technology in schools came third with high degree with a mean of (3.70) because the modern ways of education depends 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.

**Table-3: Means, Std. Dev. and degrees of the items of the second domain**

#	Item	N	Mean	Std. Dev.	Degree
10	The principal encourages the teachers to be aware of the differences of the student's characters while using the alternative assessment.	240	4	0.7	High
11	The principal encourages students to do their work in groups to increase cooperation among the students..	240	3.9	0.8	High
9	The principal encourages using the student portfolio as a kind of the alternative evaluation.	240	3.8	0.8	High
8	The principal encourages using the alternative evaluation as an effective way in the education process.	240	3.8	0.8	High
5	The principal encourages the alternative evaluation for its effectiveness in achieving the schools goals.	240	3.7	0.8	High
4	The principal encourages the teachers to be aware of the importance of giving feeding back when using the alternative evaluation.	240	3.7	0.9	High
12	The principal encourages teachers to adopt the scientific methods when using the school research as a way of the alternative evaluation process.	240	3.7	0.9	High
3	The principal encourages taking part in workshops about the strategies of using the alternative evaluation.	240	3.7	1	Moderate
6	The principal encouraging using the alternative to evaluate the achievements of the students.	240	3.7	0.9	Moderate
7	The principal provides financial support to the alternative assessment.	240	3.6	0.9	Moderate
2	The principal provides the needed information when using the strategies of the alternative assessment as a required for the meaningful learning	240	3.5	0.9	Moderate

1	The principal explains the difference between the alternative and the traditional evaluation.	240	3.5	1	Moderate
<b>Total</b>		<b>240</b>	<b>3.71</b>	<b>0.66</b>	<b>High</b>

Results in this table show that the 10<sup>th</sup> Item [The principal encourages the teachers to be aware of the differences of the student’s characters while using the alternative assessment] came first with a mean of (4), the 11<sup>th</sup> Item [The principal encourages students to do their work in groups to increase cooperation among the students] came second with a mean of (3.9), the 9<sup>th</sup> Item [The principal encourages using the student

portfolio as a kind of the alternative evaluation] came third with a mean of (3.8). The 1<sup>st</sup> Item [The principal explains the difference between the alternative and the traditional evaluation] came last with a mean of (3.5), the 2<sup>nd</sup> Item [The principal provides the needed information when using the strategies of the alternative assessment as a required for the meaningful learning] came before the last Item with a mean of (3.5).

**Table-4: Means, Std. Dev. and degrees of the items of the Third domain**

#	Item	N	Mean	Std. Dev.	Degree
1	The principal encourages using the electronic learning in the class.	240	4	1	High
4	The principal strengthen using the electronic learning to increase the students’ motivation through the meaningful learning.	240	4	1	High
8	The principal encourages the electronic learning because it increases the effectiveness of learning towards the meaningful learning.	240	3.9	0.8	High
2	The principal recommends using the electronic learning because it facilitates the leaning process.	240	3.9	0.8	High
5	The principal encourages the teachers to improve their electronic skills.	240	3.9	1	High
3	The principal encourages getting the feedback when using the electronic learning.	240	3.9	0.8	High
7	The principal brings the necessary tools and equipment to make the electronic learning easy.	240	3.9	0.8	High
6	The principal encourages taking part in workshops about the meaningful learning held by specialists in this field.	240	3.7	1.1	High
#	Item	N	Mean	Std. Dev.	Degree
10	The principal encourages the teachers to improve their high order thinking skills.	240	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.	240	3.3	1.1	Moderate
12	The principal encourages distance learning classes	240	3.3	1.2	Moderate
11	The principal encourages the teachers to use the smart phones to evaluate the students.	240	3.3	1.2	Moderate
<b>Total</b>		<b>240</b>	<b>3.70</b>	<b>0.64</b>	<b>High</b>

Results in this table show that the 1st Item [The principal encourages using the electronic learning in the class] and the 4<sup>th</sup> 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 8<sup>th</sup> 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 11<sup>th</sup> Item [The principal encourages the teachers to use the smart phones to evaluate the students] and the 12<sup>th</sup> 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 researcher investigated the following hypothesis, which was based on:

**Results related to the first hypothesis**

There are no statistically significant differences at ( $\alpha \leq 0.05$ ) in the means of participant’s

responses related to principal’s support to meaningful learning due to gender.

To test this hypothesis, the researcher used independent t-test as table (4.5) shows: The results of

independent t-test for the differences in participant’s responses related to principal’s support to meaningful learning due to gender.

**Table-5: Results of the independent t-test for gender variable**

Domains	gender	N	Mean	Std. Dev.	Std. Error Mean	t	df	Sig.
The role of principals in supporting meaningful learning	male	117	3.81	0.59	0.05	0.71	238	0.48
	female	123	3.76	0.52	0.05			
The role of principals in supporting the alternative assessment	male	117	3.65	0.71	0.07	-1.25	238	0.21
	female	123	3.76	0.61	0.05			
The role of principals in supporting the use of technology	male	117	3.74	0.63	0.06	0.89	238	0.37
	female	123	3.67	0.65	0.06			
<b>Total</b>	<b>male</b>	<b>117</b>	<b>3.74</b>	<b>0.57</b>	<b>0.05</b>	<b>0.15</b>	<b>238</b>	<b>0.89</b>
	<b>female</b>	<b>123</b>	<b>3.73</b>	<b>0.51</b>	<b>0.05</b>			

The results in table (5) show that the level of significance for the differences in participant’s responses related to principal’s support to meaningful learning due to gender is (0.98) this means that there are no statistically significant differences at ( $\alpha < 0.05$ ). Thus the hypothesis is accepted.

**This can be interpreted 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.

**Results related to the second hypothesis**

There are no statistically significant differences at ( $\alpha \leq 0.05$ ) in the means of participant’s responses related to principal’s support to meaningful learning due to location.

To test this hypothesis, the researcher used independent t-test as table (4.6) shows: The results of independent t-test for the differences in participants’ responses related to principals’ support to meaningful learning due to location.

**Table-6: Results of the independent t-test for location variable**

Domains	Geographical area	N	Mean	Std. Dev.	Std. Error Mean	t	df	Sig.
The role of principals in supporting meaningful learning	Bethlehem	120	3.53	0.42	0.04	-7.62	238	0.00
	Negev	120	4.03	0.57	0.05			
The role of principals in supporting the alternative assessment	Bethlehem	120	3.31	0.58	0.05	-11.67	238	0.00
	Negev	120	4.11	0.48	0.04			
The role of principals in supporting the use of technology	Bethlehem	120	3.38	0.49	0.05	-8.86	238	0.00
	Negev	120	4.02	0.62	0.06			
<b>Total</b>	<b>Bethlehem</b>	<b>120</b>	<b>3.41</b>	<b>0.39</b>	<b>0.04</b>	<b>-11.31</b>	<b>238</b>	<b>0.00</b>
	<b>Negev</b>	<b>120</b>	<b>4.05</b>	<b>0.47</b>	<b>0.04</b>			

The results in table (6) show that the level of significance for the differences in participant’s responses related to principal’s support to meaningful learning due to location is (0.00). This means that there is statistically significant differences at ( $\alpha < 0.05$ ), 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

are in favor of the Negev geographical area. This can be explained as the following:

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.

**Results related to the third hypothesis**

There are no statistically significant differences at ( $\alpha \leq 0.05$ ) in the means of participant’s responses related to principal’s support to meaningful learning due to years of experience.

To test this hypothesis, the researcher used one-way ANOVA- test, table (4.7) shows: the distribution of the participant’s responses related to principal’s support to meaningful learning due to years of experience.

**Table-7: Means, Std. Dev. And degrees of the items for years of experience variable**

Domain	Years of Experience	N	Mean	Std. Dev.	Degree
The role of principals in supporting meaningful learning	Less than 5 years	95	3.89	0.56	High
	Form 5 – 10 years	56	3.67	0.60	High
	More than 10 years	89	3.73	0.51	High
The role of principals in supporting the alternative assessment	Less than 5 years	95	3.98	0.52	High
	Form 5 – 10 years	56	3.68	0.65	High
	More than 10 years	89	3.44	0.69	Moderate
The role of principals in supporting the use of technology	Less than 5 years	95	3.85	3.9	High
	Form 5 – 10 years	56	3.67	0.71	High
	More than 10 years	89	3.56	0.64	Moderate
<b>Total</b>	<b>Less than 5 years</b>	<b>95</b>	<b>3.78</b>	<b>0.46</b>	<b>High</b>
	<b>Form 5 – 10 years</b>	<b>56</b>	<b>3.67</b>	<b>0.59</b>	<b>High</b>
	<b>More than 10 years</b>	<b>89</b>	<b>3.58</b>	<b>0.53</b>	<b>Moderate</b>
			<b>3.73</b>	<b>0.54</b>	<b>High</b>

The results in this table (7) show that there is a clear difference between the means of the three levels

for the years of experience. Therefore, the researcher used the One Way ANOVA test as shown in table (8).

**Table-8: The results of ANOVA- test for the differences in the participant’s responses related to principal’s support to meaningful learning due to years of experience**

domain		Sum of Squares	df	Mean Square	F	Sig.
The role of principals in supporting meaningful learning	Between Groups	2.13	2	1.07	3.51	0.03
	Within Groups	72.15	237	0.30		
	Total	74.28	239			
The role of principals in supporting the alternative assessment	Between Groups	13.23	2	6.61	17.12	0.00
	Within Groups	91.58	237	0.39		
	Total	104.81	239			
The role of principals in supporting the use of technology	Between Groups	4.04	2	2.02	5.03	0.01
	Within Groups	95.03	237	0.40		
	Total	99.07	239			
<b>Total</b>	<b>Between Groups</b>	<b>5.05</b>	<b>2</b>	<b>2.53</b>	<b>9.31</b>	<b>0.00</b>
	<b>Within Groups</b>	<b>64.27</b>	<b>237</b>	<b>0.27</b>		
	<b>Total</b>	<b>69.32</b>	<b>239</b>			

The results in this table (8) show that the level of significance for the differences in the participant’s responses related to principal’s support to meaningful

learning due to years of experience is (0.00) this means that there are statistically significance differences at ( $\alpha < 0.05$ ). And thus the hypothesis is rejected.

To clarify to whom the differences refer to, the researcher used the LSD (the less significant deference's test) as shown in table (9).

**Table-9: 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 (9) 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.

**The researchers attributed this to the following**

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 and 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.

**Recommendations**

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

**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.

**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 school's 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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