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Teachers' View of High School Principals' Support for Alternative Assessment as a Tool for Meaningful Learning

Khaled Ahmad Ateyeh Alhassanat a 🤇

Sonia Abdulfattah Ibrahim Shehadeh 垣

 ^a The Comprehensive School Ort Abu Rabia - Kseifa, Email: khaledal68@gmail.com
^b Department of Administrative and Financial Sciences, Palestine Technical University Kadoorie, Ramallah Branch – Palestine, Email: Sonia.shehadeh@ptuk.edu.ps

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Abstract

We conducted this study to determine the extent "Teachers' View of High School Principals' Support for alternative assessment as a tool for Meaningful Learning, during the first semester of the academic year 2021-2022, using the descriptive approach. The population consisted of all of the (94) secondary schools in Bethlehem governorate and in Negev Sector. The sample consisted of (268) teacher from both areas. We used the questionnaire to achieve the goals of the study. The results showed that the role of principals in supporting alternative assessment from the teacher's point of view was high with a mean of (3.71) over/out of (5). The result also revealed that there were no statistically significant differences due to gender and academic qualifications. However, there were statistically significant differences due to years of experience in favor of less than five, and due to 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, and encourage the students to use the higher order thinking skills in their daily life. The principal should involve the alternative assessment 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 alternative assessment at schools, to have more cooperation between the local communities and the schools, Adopting the Negev experience in implementing the alternative assessment theory, in order to apply it at the schools of Palestinian Ministry of education.

Keywords: High School Principals, alternative assessment, Bethlehem Governorate, Negev Sector.

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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. Gozuyesil & Tanriseven (2017) 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. According to Hunter et. al (2022) teachers Sometimes find it difficult to achieve it without organizing the curriculum to provide for the traumatic introduction of new facts and concepts.

Novak (2002) explained that Ausubel's theory covers the whole learning process from the planning to the assessment and the application. Alternative assessment helps the learner choose conscientiously to integrate the new knowledge that learner already possesses (Burrows et. Al, 2021), 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 Demir et. al (2019).

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 (Patmisari et. Al., 2022), 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 (Gozuyesil & Tanriseven, 2017). 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 alternative assessment activates.

According to Novak (2011), alternative assessment involves thinking and feeling. Rote learning studies recall information. Students are motivated only when they get the right answer. Whereas in alternative assessment 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.

Historical Background (The importance of Meaningful learning):

According to Hunter et. al (2022), Alternative assessment embodies "a distinctive kind of learning process." The learner employs a set to incorporate within his cognitive structure, nonverbal in fashion, in no arbitrary, potential meaningful materials. Alternative assessment does not mean learning of meaningful material. Meaningful material cannot be meaningful learned because it is only potentially meaningful. Alternative assessment should have components that determine the aspect of learning material or be potential meaningfully Ausuble (1963).

Burrows et. Al (2021) argue that It is difficult to demonstrate that alternative assessment has occurred; the only feasible way is an independent problem-solving to check whether the learners comprehend meaningfully the idea they are able to verbalize. Problem solving demands other abilities and qualities to achieve such as, reasoning power, flexibility, perseverance, sensitivity, improvisation and tactical smartness. Ausuel (1968).

Ausuel (1968) pointed out that we can distinguish three distinct phases during meaningful reception learning and retention. First, before potentially meaning material can be learned, it must be perceived; the second phase is the learningretention process that is observed by a relevant and appropriate inclusive conceptual system. The third phase is the reproduction of the retained information.

Alternative assessment requires both that learners manifest a alternative assessment set and that the learner should potentially absorb the material they are learning (Patmisari et. Al., 2022). When the learner establishes a alternative assessment relationship between new and established knowledge, then what the learner requires to involve both the nature of the learning task and the nature of particular learners' structure of knowledge, which is a more complicated matter than a alternative assessment set. Alternative assessment is an emergent outcome of the interaction between the ideas to be learned in the instructional material and relevant subsuming ideas in the learner's cognitive structure Ausubel (1963).

Ausubel (1963) add that Motivational factors (enhancing effort, attention and immediate readiness for learning) have a positive effect on ensuing meaningful learning, besides the cognitive variable that influences availability during the retention interval. In addition, the above factors influence the cognitive interactional process in the particular aforementioned ways through the cognitive variables that determine precision, stability, clarity and discriminability, which emerges new meanings during learning.

Vallori (2014) illustrated the most vital principles in applying meaningful learning. Those are open: work assists all learners to learn, then motivation; they help increase classroom environment and make learners be involved in their tasks. In addition, they must be related to the environment of learners. They are also creative, which reinforces imagination and intelligence. Moreover, they are built on concept mapping, which helps to link and connect concepts. Finally, they are based on educational programs and must be adjusted in considerable to learners with special necessities.

According to Karpicke (2012), through meaningful learning, people have the ability to reconstruct knowledge rather than reproducing it exactly. People do not store the same copies of experiences that reproduce verbatim in retrieval because knowledge is reproduced on the basic of present context and available retrieval cues (Ahmad et. Al, 2020).

Understanding the process involved in retrieving and reconstructing knowledge is essential in order to understand learning. Because the act of retrieval itself is a powerful tool for enhancing long term learning (Gozuyesil & Tanriseven, 2017). When people reconstruct knowledge, people's expression depends on a retrieval cues available in a given content. In addition, every time people retrieve knowledge, the knowledge is changed, so retrieving knowledge will improve their ability to regain knowledge again in the future (Demir et. Al, 2019). Retrieval is important for understanding learning because all types of knowledge requires retrieval and depends on of retrieval cues. Therefore, retrieval is the key to promote learning through improving the match between a cue and particular desired knowledge. Retrieval-based learning helps improve students' performance. There are many activities that active retrieval could be potentially incorporated into and retrieval could be integrated in such activities in many different ways (Sadilloyevna, 2022).

Novak and Gowing (1984) added "that alternative assessment needs an effective tool to visualize it by using a concept map to better understanding and an assessing concept map as a graphical tool for representing knowledge structure in the form of a graph. The nodes of graph represent concepts. The edge that runs between concepts represent relationships. Concept and relationships between them formulate propositions". (p.5) concept maps require constantly integrated newly acquired concepts and relationships into existing concept maps. It is important that in alternative assessment the concept map can be modified to accommodate the change.

Principals can use the concept map as a tool to improve teaching, concept mapbased on assignments has different formats, which has an impact on the outcomes. What makes incorporation of concept map into teaching is feasible: if you use the concept map tools and learning curves, a concept map can be constructed in many different ways Wie and Yue (2017).

How could principals use the theory of alternative assessment effectively? It is important that principals believe in alternative assessment theory as a tool for developing their schools by understanding how knowledge is produced and reconstructed, be certain of the significance of retrieval in implementing alternative assessment and besides, be aware of the concept map. This basic understanding can help principals develop their effectiveness in implementing meaningful learning. In this study, I will draw a picture about the role of the principal in fulfilling alternative assessment in schools, the importance of technology in adopting alternative assessment and the importance of alternative assessment in evaluating students in alternative assessment process.

Alternative assessment definition:

Harpaz (2013) defined alternative assessment 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 (2014) defined the alternative assessment 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. Wei and Yue (2017,5) defined alternative assessment (as identified by Ausubel in Ausubel, 1963) as the most important learning principle) as a process signified by integrating new concepts and propositions with existing relevant ideas in some substantive ways, within one's cognitive structure.

"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 alternative assessment process. Ausubel (2000).

The role of principals in supporting the alternative assessment:

Allison et al. (2015) 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. (2015) 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 Patmisari et. Al. (2022).

Egalite et al. (2015) 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. (2015) 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 (2007) 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. (2017) 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. (2010) suggested that in order to make professional development accessible, it is important that teachers embrace computerized programs to build effective and improve students' outcomes.

Non-cognitive skills (behaviors, attitudes, and strategies) are responsive to educational intervention Egalite et al. (2015). Teachers need to get training to evaluate students in pedagogical affordances to make decisions about using them in the future and on electing educational applications. Baran et al. (2017).

Previous studies

Patmisari et. Al. (2022): The purpose of this paper is to provide an alternative assessment approach for teachers in civic learning so that it can be used as a reference for civic teachers to conduct the affective assessment. This research is included in the Library Research type of research. Data is obtained from various books, journals, scientific papers, and other documents that examine the distance learning assessment model. The results showed that five assessment approaches could assess students' attitudes: survey techniques, interviews, observation, selfassessment, and user data. The survey approach is most commonly used in various disciplines to show course satisfaction, perceived course usability, and intentionfulfilment. Interviews were used to reveal experiences during their learning, such as professional development, leader motivations, and barriers. Self repost with a Likert scale reflects students' perceptions of affective learning outcomes, such as learning experiences, perceived learning benefits, and civic learning satisfaction. Observation and self-assessment are used to reveal students' evaluations of learning experiences and distance learning benefits. Meanwhile, user data is used to measure the experience and emotional state of students.

Sadilloyevna (2022): In all academic settings, assessment is viewed as closely related to instruction. Assessment is needed to help teachers and administrators make decisions about students' linguistic abilities, their placement in appropriate levels, and their achievement. The article analyses importance and benefits of alternative assessment in teaching English as a foreign language.

Burrows et. al (2021): Research has begun to explore the undergraduate laboratory in many facets, such as students' feelings, goals, and instructional approaches to the laboratory. However, research has not explored the experiences of students with summative assessment in the laboratory. This qualitative study investigates the experiences of upper-level undergraduate students' exposure to lab interviews as an oral summative assessment. A phenomenological approach guided the analysis and interpretation of data gathered from 16 semistructured student interviews. The exploration of the data resulted in the development of an outcome space with three fundamental features and students' core perceptions about lab interviews. This outcome space explores students' feelings, performances, and perceived conceptual understandings before, during, and after the interview process. Implications and suggestions for the design and improvement of assessment practices are discussed.

Ahmad & Jamil (2020): this article discusses the applications of different types of assessment and evaluation procedures in teaching. The main research objective was to strengthen the superiority of alternative forms of assessment methods over traditional assessments in the light of learning theories i.e. behaviorism, cognitivism, and constructivism. These learning theories define learning differently. A growing body of research suggests that assessment greatly influences classroom instruction and that it is closely linked to teaching and learning. Students learn the way they think they will be assessed rather than what is mentioned in the curriculum. The present study concludes the importance of alternative assessment techniques to highlights learner's misconceptions and gaps in their knowledge.

Demir et al (2019): This literature review investigate alternative assessment in order to highlight key findings in this research field; to identify challenges and

facilitate its adoption; to illustrate gaps or shortcomings in the literature, and to further contribute to the body of research on alternative assessment. Descriptive content analysis was used to review, identify and describe the general trends and research results in a particular scope. Using the content analysis, 42 studies regarding alternative assessment were collected and analyzed. Multiple variables including: study method, participants, research area, research design, context of the study were extracted, and categorized according to teacher perceptions related to pedagogy, student impact, challenges in implemention and teacher competency on alternative assessment methods. The major findings were that although some teachers do not feel competent in using alternative assessment; they nevertheless have positive attitudes towards these methods, and they believed that the methods improve students' higher-level thinking and creativity.

Al-Mahrooqi, R., & Denman, C. (2018): This literature review investigate alternative assessment in order to highlight key findings in this research field; to identify challenges and facilitate its adoption; to illustrate gaps or shortcomings in the literature, and to further contribute to the body of research on alternative assessment. Descriptive content analysis was used to review, identify and describe the general trends and research results in a particular scope. Using the content analysis, 42 studies regarding alternative assessment were collected and analyzed. Multiple variables including: study method, participants, research area, research design, context of the study were extracted, and categorized according to teacher perceptions related to pedagogy, student impact, challenges in implemention and teacher competency on alternative assessment methods. The major findings were that although some teachers do not feel competent in using alternative assessment; they nevertheless have positive attitudes towards these methods, and they believed that the methods improve students' higher-level thinking and creativity.

Gozuyesil & Tanriseven (2017): This study aims to examine the impact of alternative assessment techniques on achievement. Research Methods: In the study, a meta-analysis was conducted to combine the effect sizes of the primary studies during data collection and data analysis. Findings: Data analysis indicated that alternative assessment techniques have a significant and positive effect (d=0.84) on students academic achievement. Such techniques have been found to be more effective in Mathematics courses (d=0.84), and the effect of using portfolios in class (d=1.01) is worthy of note. In accordance with the moderator analysis, whereas the effect sizes do not significantly vary in terms of subject matter and type of alternative assessment technique, there is a significant difference in the effect sizes in terms of school levels of students. Implications for Research and Practice: The results highlighted portfolios as a highly effective assessment technique for students' academic achievements, and it revealed the impact of alternative assessment techniques on enhancing academic outcome. However, the low effectiveness of authentic assessment at the primary level may be associated with the development of creativity and critical thinking skills over time

Ahmed Al-Thawabiya and Khalid Al-Saudi (2016): 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 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 (a statistically significant at 0.05) and no significant differences were found due to the rest of the variables or interactions between them. In light of these results.

Ashraf Attia Fouad Mustafa (2016): 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. (2016): conducted a study in United States aimed at examining the potential benefits, limitations, and challenges involved in using experiments to evaluate professional development for principles. The study was based on urban school's 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.

Akram Adel Al-Basheer and Areej Isam Barham (2012): the study aimed at investigating the degree of Mathematics and Arabic teachers' using of the alternative assessment strategies and its tools in Jordan. To achieve the objectives of the study; a questionnaire was built and it was distributed over 86 teachers, and semi- structured interviews were conducted with 20 teachers from the two specializations. Results of the study revealed that the degree of teachers' using for the pencil and paper strategy was high, while it was intermediate for the use of performance –based assessment strategy, the observation strategy, and the communication strategy, and it was low for the reflection assessment strategy and in the use of the alternative assessment tools. Results also revealed that there were no statistically significant differences in the degree of teachers' using for the alternative assessment strategies related to the effect of teachers' specialization. Whereas, there was statistically significant differences related to the effect of number of years of experience and to the effect of the training courses. Recommendations were offered in the light of the study.

Mohammed Shehadeh Zaqout (2011): The objective of this study is to determine recent trends in the evaluation. It also aims to identify the reality the Arabic language teacher's use, in the preparatory stage in UNRWA schools in the Gaza Strip, of alternative evaluation, and determine whether different teachers use the methods of evaluation depending on the gender variable, to achieve these goals the researcher followed the descriptive approach, using two tools, namely: the questionnaire and note card. The study sample included (60) teachers from the east and the West of the Gaza Strip. It included also sample of (24) managers and supervisors. The researcher noted the reality of the use of Arabic language teachers, in UNRWA schools in Gaza City, of the alternative methods of evaluation. A questionnaire was distributed among managers and supervisors for the same purpose. The study recommended a number of recommendations including: - review of the current evaluation practices that rely on traditional tests; it is no longer acceptable for the teachers to continue to understand that the evaluation is a synonym for the exams; and the role of the school continues to be limited in the scope of preparing the students for the tests rather than the understanding.

- Develop of curricula, in particular the subjects of the Educational Measurement and evaluation studied by the students - future teachers. In Education Faculties to include methods of alternative evaluation.

Gaps in the Literature

There is a huge gap in applying alternative assessment 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 alternative assessment, 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 alternative assessment is still ineffective. The researchers felt the importance of the principal's role in supporting alternative assessment in both Bethlehem and Bedouin high schools.

The importance of the study appears in focusing on a new approach in education, which is alternative assessment. 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 the Negev system.

This study aims to

The purpose of the study is to examine teacher perspectives toward the extent to which high school principals in the Bethlehem governorate and Bedouin Sector support alternative assessment. In addition, the study aimed to acknowledge if there are statistical differences in supporting alternative assessment by high school principals in Bethlehem governorate and Bedouin Sector from the teacher perspective.

Questions of the Study:

The Main Question: to what extent Teachers' View of High School Principals' Support for alternative assessment as a tool for Meaningful Learning?

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

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

Study Hypothesis:

- 1. There are no statistically significant differences at ($\alpha \le 0.05$) in the means of Teachers' View of High School Principals' Support for alternative assessment as a tool for Meaningful Learning due to gender.
- 2. There are no statistically significant differences at ($\alpha \le 0.05$) in the means of Teachers' View of High School Principals' Support for alternative assessment as a tool for Meaningful Learning due to location.

- 3. There are no statistically significant differences at ($\alpha \le 0.05$) in the means of Teachers' View of High School Principals' Support for alternative assessment as a tool for Meaningful Learning due to years of experience.
- 4. There are no statistically significant differences at ($\alpha \le 0.05$) in the means of Teachers' View of High School Principals' Support for alternative assessment 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 alternative assessment. According to the researchers' knowledge, this research is the first to tackle this subject in Bethlehem and the Negev sector. This study is one of a few studies that make a comparison in fields of education between the Palestinian system and the Negev system.

Definition of Terms:

Alternative assessment: defined by Washington, DC (1999) as a blanket term that covers any number of alternatives to standardized tests. While the traditional paper and pencil tests may be effective to assess some of the skills (such as listening), they are not sufficient to assess the productive skills of speaking and writing. The nature of proficiency-oriented language learning calls for a variety of assessment options reflecting the numerous instructional strategies used in the classroom. Authentic assessment, performance-based assessment, and portfolio fall under this category. And defined by (carol et al, 2007) "way to gauge student learning other than formal testing" (p222).

Procedural definition: a method of evaluation that measures a student's level of proficiency in a subject as opposed to the student's level of knowledge. The overall goal of alternative assessment is to allow students to demonstrate their knowledge and execute tasks.

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. (page 2)

Bedouin Sector: 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 the 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 (268) sample of teachers from a random cluster of twenty secondary schools were chosen to respond to the questionnaire.

Demographi	c Variables	Frequency	Percent %
	Male	126	49
Gender	Female	132	51
	Total	268	100
	Bethlehem	129	50
Geographical area	Negev Sector	129	50
	Total	268	100
	less than 5	101	40
Veens of emperies of	5-10	62	23
Years of experience	more than 10	95	37
	Total	268	100
	Diploma	23	7
	BA	181	73
Qualification	Master and above	54	20
	Total	268	100

Table (I): statistical description of the research sample according to demographic variables

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 Arab schools in Negev support alternative assessment 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 alternative assessment" Here are some of the studies that helped the researcher 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 instruments 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, 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:

1. The relevant literature was reviewed to establish the theoretical background of the study.

- 2. The population was identified and the samples were selected on which the instruments will be applied.
- 3. The questions of the study were put up, depending on previous studies.
- 4. The reliability and validity of the instrument were approved.
- 5. A letter of permission was obtained from the Ministry of education and higher education Directorate of Education/Bethlehem to facilitate the implementation of the research.
- 6. The researchers himself distributed the instruments on teachers in order to obtain valid and credible results.
- 7. The instrument was distributed and gathered in the Second semester of the scholastic year 2021-2022.
- 8. The data was gathered and analyzed by using SPSS program.
- 9. 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 Teachers' View of High School Principals' Support for alternative assessment as a tool for Meaningful Learning.

Data Analysis:

In order to analyze the data, the researcher 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 alternative assessment as a tool for Meaningful Learning?

#	Item	Ν	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.	268	4	0.7	High
11	The principal encourages students to do their work in groups to increase cooperation among the students.	268	3.9	0.8	High
9	The principal encourages using the student portfolio as a kind of the alternative evaluation.	268	3.8	0.8	High
8	The principal encourages using the alternative evaluation as an effective way in the education process.	268	3.8	0.8	High
5	The principal encourages the alternative evaluation for its effectiveness in achieving the school's goals.	268	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.	268	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.	268	3.7	0.9	High

Table (II): means, Std. Dev. and degrees of the items of the questioner.

3	The principal encourages taking part in workshops about the strategies of using the alternative evaluation.	268	3.7	1	Moderate
6	The principal encouraging using the alternative to evaluate the achievements of the students.	268	3.7	0.9	Moderate
7	The principal provides financial support to the alternative assessment.	268	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	268	3.5	0.9	Moderate
1	The principal explains the difference between the alternative and the traditional evaluation.	268	3.5	1	Moderate
	Total	268	3.71	0.66	High

Results in table show that the 10th 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) out of (5), the 11th 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) out of (5), the 9th Item [The principal encourages using the student portfolio as a kind of the alternative evaluation] came third with a mean of (3.8) out of (5). The 1st Item [The principal explains the difference between the alternative and the traditional evaluation] came last with a mean of (3.5) out of (5), the 2nd 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) out of (5).

Results related to the second question:

Is there a difference in the extent Teachers' View of High School Principals' Support for alternative assessment as a tool for Meaningful Learning due to gender, location, years of experience, 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 ($\alpha \le 0.05$) in the means of Teachers' View of High School Principals' Support for alternative assessment as a tool for Meaningful Learning due to gender.

To test this hypothesis, the researchers used independent t-test as table (III) shows: The results of independent t-test for the differences in participant's responses related to principal's support to alternative assessment due to gender.

Gender	Ν	Mean	Std. Dev.	Std. Error Mean	t	df	Sig.
male	126	3.65	0.71	0.07	-1.25	266	0.21
female	132	3.76	0.61	0.05			

Table (III): Results of the independent t-test for gender variable.

The results in table (III) show that the level of significance for the differences in participant's responses related to principal's support to alternative assessment due to gender is (0.21) 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 ($\alpha \le 0.05$) in the means of Teachers' View of High School Principals' Support for alternative assessment as a tool for Meaningful Learning due to location.

To test this hypothesis, the researchers used independent t-test as table (IV) shows: The results of independent t-test for the differences in participant's responses related to principal's support to alternative assessment due to location.

Table (IV): Results of the independent t-test for location variable.

Geographical area	Ν	Mean	Std. Dev.	Std. Error Mean	t	df	Sig.
Bethlehem	129	3.31	0.58	0.05	-		
Negev	129	4.11	0.48	0.04	11.6 7	266	0.00

The results in table (IV) show that the level of significance for the differences in participant's responses related to principal's support to alternative assessment due to location is (0.00). This means that there is 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 ($\alpha \le 0.05$) in the means of Teachers' View of High School Principals' Support for alternative assessment as a tool for Meaningful Learning due to years of experience.

To test this hypothesis, the researcher used one-way ANOVA- test, table (\mathbf{V}) shows: the distribution of the participant's responses related to principal's support to alternative assessment due to years of experience.

Table (V): means, Std. Dev. And degrees of the items for years of experience variable.

Years of Experience	Ν	Mean	Std. Dev.	Degree
Less than 5 years	101	3.98	0.52	High
Form 5 – 10 years	62	3.68	0.65	High
More than 10 years	95	3.44	0.69	Moderate

The results in this table (IV) 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 (VI).

Table (VI): the results of ANOVA- test for the differences in the participant's responses related to principal's support to alternative assessment due to years of experience.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	13.23	2	6.61	17.12	0.00
Within Groups	91.58	265	0.39		
Total	104.81	267			

The results in this table (VI) show that the level of significance for the differences in the participant's responses related to principal's support to alternative assessment 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 researcher used the LSD (the less significant deference's test) as shown in table (VII).

(T)		Mean	044		95% Confidence Interval	
(I) Experience	(J) Experience	Difference	Std. Error	Sig.	Lower	Upper
Experience		(I-J)	EII0I		Bound	Bound
Less Than	5-10	.22343*	.09295	.017	.0403	.4066
5	More than 10	.16469*	.08139	.044	.0043	.3250
5-10	Less Than 5	22343*	.09295	.017	4066	0403
5-10	More than 10	05874	.09411	.533	2441	.1267
More than	Less Than 5	16469*	.08139	.044	3250	0043
10	5-10	.05874	.09411	.533	1267	.2441

Table (VII): the results of LSD test for the participant's responses related to principal's support to alternative assessment due to years of experience.

The result in table (VII) 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 ($\alpha \le 0.05$) in the means of Teachers' View of High School Principals' Support for alternative assessment as a tool for Meaningful Learning due to academic qualification.

To test this hypothesis, the researcher used one-way ANOVA- test, table (VIII) shows: the distribution of the participant's responses related to principal's support to alternative assessment due to academic qualification.

Table (VIII): means, Std. Dev. and degrees of the items for academic qualification variable.

Qualification	Ν	Mean	Std. Dev.	Degree
Diploma	23	3.92	0.51	High
BA	181	3.78	0.59	High
Master and above	54	3.38	3.62	Moderate

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

Table (IX): the results of ANOVA- test for the differences in the participant's responses related to principal's support to alternative assessment due to academic qualification.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	6.67	2	3.33	8.05	0.00
Within Groups	98.14	265	0.41		
Total	104.81	267			

The Results in table (IX) show that the level of significance for the differences in responses related to principal's support to alternative assessment due to academic qualification (0.00) 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 Meaningful Learning was high with a mean of (3.71) 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:

Results related to the first question: The researchers attributed this to the fact that 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.

Results related to the second question

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

Results related to the first Hypothesis: The researchers attributed this to the fact that 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: The researchers attributed this to the fact that the ministry of education in Negev adopted the Alternative assessment 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 alternative assessment 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 alternative assessment 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 alternative assessment 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 alternative assessment individually.

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

Results related to the third Hypothesis: The researchers attributed this to the fact that the universities played an important role in training the new teachers to adopt alternative assessment as part of their daily work in schools. In addition, the new teachers practiced the components of the alternative assessment 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 alternative assessment 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 alternative assessment program. The experienced teachers needed to adjust their plans to meet with the requirements of

the alternative assessment program, which is met most of the time with complaints and doubts about the effectiveness of this program.

Results related to the fourth hypothesis: The researchers attributed this to 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 alternative assessment 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 alternative assessment program.

Limitations of the study:

The current study has the following limitations:

- 1. This population study consisted of the High schools in Bethlehem Governorate and Bedouin sector in the south of Palestine.
- 2. The study was carried out in the academic year (2021-2022) at the first semester.
- 3. The study was limited by the concepts and definitions mentioned in it.

Recommendations:

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

Regarding for Teachers:

- 1. Teachers (particularly Bethlehem governorate) should replace the traditional assessment to more meaningful assessment through using the Alternative assessment.
- 2. Teachers (particularly Bethlehem governorate) should encourage the students to use the higher order thinking skills in their daily life.

Regarding for Principals:

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

Regarding for Decision-makers:

- 1. Urging the Palestinian ministry of education to be more concerned about adopting the alternative assessment theory by increasing the school's budgets, providing the needed tools and labs, as such been done at the Negev Sector.
- 2. The Palestinian Ministry of education should raise the awareness of the local communities about the importance of the alternative assessment at schools, to have more cooperation between the local communities and the schools.
- 3. Adopting the Negev experience in implementing the alternative assessment theory, in order to apply it at the schools of Palestinian Ministry of education.

References

- Abaya, J. (2016). School leadership challenges along Kenya's borabu-sotik border. *Educational Management Administration & Leadership*, 44(5):757-774
- Ahmad et. al (2020). Behaviorism vs constructivism: A paradigm shift from traditional to alternative assessment techniques. *Journal of Applied Linguistics and Language Research*, 7(2):19-33.
- Alaa Sadik (2008): Digital storytelling: a meaningful technology-integrated approach for engaged student, *Educational Technology Research and Development*, 56(4):478-506
- Al-Bashir, Akram and Barham, Essam (2012): Using alternative assessment strategies and tools in evaluating the learning of mathematics and Arabic in Jordan, *Journal of Educational and Psychological Sciences*, 13(1): 241-270.
- Al-Harash, Ayed and others (2010): Obstacles to using the e-learning system from the point of view of secondary school teachers in the Koura District, *The Jordanian Journal of Educational Sciences*, 6 (1): 27-40.
- Allison, P., Gray, S., Sproule, J., Nash, C., Martindale, R., & Wang, J. (2015). Exploring contributions of project-based learning to health and wellbeing in secondary education. *Improving Schools*, 18(3):207-220.
- Al-Mahrooqi, R., & Denman, C. (2018). *Alternative assessment*. The TESOL Encyclopedia of English Language Teaching, 10, 9781118784235.
- Anne Nevgiv and Erika Löfström (2006): From strategic planning to meaningful learning: diverse perspectives on the development of web-based teaching and learning in higher education, *BJET*, *38*(2):312-324.
- Ausubel, D. G. (2000). Cognitive structure and the facilitation of meaningful verbal Learning1. *Journal of Teacher Education*, 14(2):217-222.
- Ausubel, D. P. (1963). *The acquisition and retention of knowledge: A cognitive view*. Springer Science & Business Media.
- Ausubel, D. P. (1968). The psychology of meaningful verbal learning. Grune &Stration, INC. New York.
- Baran, E., Uygun, E., & Altan, T. (2017). Examining preservice teachers' criteria for evaluating educational mobile apps. *Journal of Educational Computing Research*, 54(8):1117-1141.
- Barron, B., & Darling-Hammond, L. (2008). *Teaching for Meaningful Learning: A Review of Research on Inquiry-Based and Cooperative Learning*. Book Excerpt. George Lucas Educational Foundation.
- Bolliger, D. U., Mills, D., White, J., & Kohyama, M. (2015). Japanese students' perceptions of digital game use for english-language learning in higher education. *Journal of Educational Computing Research*, 53(3):384-408.
- Burrows et. Al (2021). Alternative Assessment to Lab Reports: A Phenomenology Study of Undergraduate Biochemistry Students' Perceptions of Interview Assessment. *Journal of Chemical Education*, 98(5), 1518-1528.
- Bush, T. (2008): From management to leadership: semantic or meaningful change? *Educational management administration & leadership*, 36(2):271-288.
- Camburn, E. M., Goldring, E., Sebastian, J., May, H., & Huff, J. (2016). An examination of the benefits, limitations, and challenges of conducting

randomized experiments with principals. *Educational Administration Quarterly*, 52(2):187-220.

- carol et al, (2007): Implementing Alternative Assessment: Opportunities and Obstacles, *The Educational Forum*, 71:221-230.
- Carrington, V., & Robinson, M. (Eds.). (2009). Digital literacies: Social learning and classroom practices. sage.
- Cashman, S., & Gunter, G. (2006). *Integrating technology and digital media in the classroom*, Thomason Course Technology.
- Chai, C. S., Koh, J. H. L., Tsai, C. C., & Tan, L. L. W. (2011). Modeling primary school pre-service teachers' Technological Pedagogical Content Knowledge (TPACK) for alternative assessment with information and communication technology (ICT). *Computers & Education*, 57(1), 1184-1193.
- Daniel T. Bressington et al. (2018): Concept mapping to promote meaningful learning, help relate theory to practice and improve learning self-efficacy in Asian mental health nursing students: A mixed-methods pilot study, *Nurse Education Today*, 60:47–55.
- Deakins, Eric. (2007). The role of meaningful dialogue in early childhood education leadership. *Australian Journal of Early Childhood, 32*(1):38-47.
- Demir et. al (2019). Evaluation of alternative assessment methods used in elementary schools. *Egitim ve Bilim, 44*(197).
- Egalite, A. J., Mills, J. N., & Greene, J. P. (2016). The softer side of learning: Measuring students' non-cognitive skills. *Improving Schools*, 19(1):27-40.
- Eger, L., & Egerová, D. (2016). Project risk management in educational organizations. *Educational Management Administration & Leadership*, 44(4):578-598.
- El-Atrash, A. (2009). Promoting sustainable urban growth strategies to curb sprawl in the urban area of Bethlehem governorate (Doctoral dissertation, Birzeit University).
- Fisher, J. B., Schumaker, J. B., Culbertson, J., & Deshler, D. D. (2010). Effects of a computerized professional development program on teacher and student outcomes. *Journal of Teacher Education*, 61(4):302-31
- Frye, H. (1988). The principal's role in teacher preparation. Journal of Teacher Education, 39(6):54-58.
- Gagné, R. M. (1975). Learning hierarchies and learning conditions. *Journal of Curriculum Studies*, 7(2):133-134.
- Galloway, K. R., & Bretz, S. L. (2015). Measuring alternative assessment in the undergraduate chemistry laboratory: a national, cross-sectional study. *Journal of Chemical Education*, 92(12):2006-2018.
- Gordon, E., & Lowrey, K. A. (2017). The mentoring web coming together to make a difference. *Improving Schools, 20*(2):178-190.
- Gozuyesil, E., & Tanriseven, I. (2017). A meta-analysis of the effectiveness of alternative assessment techniques. *Eurasian Journal of Educational Research*, 17(70), 37-56.
- Harpaz, Y. (2013): Teaching and learning in a community of thinking: The third model. Springer Science & Business Media.

- Howland, J. L., Jonassen, D. H., & Marra, R. M. (2012). Alternative assessment with technology. Upper Saddle River, NJ: Pearson.
- Hunter et. al (2022). Alternative Assessment of Active Learning. In Active Learning in the Analytical Chemistry Curriculum (pp. 269-295). American Chemical Society.
- Kärki, T., et al. (2018): Alternative assessment with mobile devices: pre-service class teachers' experiences of mobile learning in the outdoors. Technology, *Pedagogy and Education*, 27(2):251-263.
- Karpicke, J. D. (2012). Retrieval-based learning. Current Directions in Psychological Science, 21(3):157-163.
- Keengwe, J., Onchwari, G. & Wachira, P. (2008): The Use of Computer Tools to Support Meaningful Learning. AACE Journal, 16(1):77-92.
- Khan, B. H. (Ed.). (2005). *Managing e-learning: Design, delivery, implementation, and evaluation.* IGI Global.
- Lee, J. C., & Lo, L. N. (2007). The accelerated schools for quality education project: Experiences of school change in Hong Kong. *Improving Schools*, 10(2):180-198.
- Levine, T. H. (2011). Experienced teachers and school reform: Exploring How Two Different Professional Communities Facilitated and Complicated Change. *Improving Schools*, 14(1):30-47.
- Li, X., & Yang, X. (2016). Effects of learning styles and interest on concentration and achievement of students in mobile learning. *Journal of Educational Computing Research*, 54(7):922-945.
- Menard, E. (2013). Creative thinking in music: Developing a model for alternative assessment in middle school general music. *Music Educators Journal*, 100(2):61-67.
- Mifsud, D. (2015). The setting-up of multi-site school collaboratives: The benefits of this organizational reform in terms of networking opportunities and their effects. *Improving Schools*, 18(3):236-249.
- Miller, R. J., Goddard, R. D., Kim, M., Jacob, R., Goddard, Y., & Schroeder, P. (2016). Can professional development improve school leadership? Results from a randomized control trial assessing the impact of McREL's balanced leadership program on principals in rural Michigan schools. *Educational Administration Quarterly*, 52(4):531-566.
- Moran, M., Hawkes, M., & Gayar, O. E. (2010). Tablet personal computer integration in higher education: Applying the unified theory of acceptance and use technology model to understand supporting factors. *Journal of Educational Computing Research*, 42(1):79-101.
- Mustafa, Ashraf Attia (2016): *The reality of Islamic education teachers' practice of alternative assessment methods and ways to develop them in the lower basic stage in Gaza*, an unpublished master's thesis, the Islamic University, Gaza.
- Ng, S., & Szeto, S. E. (2016). Preparing school leaders. *Educational Management* Administration & Leadership, 44(4):540-557.
- Novak J, (2011), A Theory of Education: *Alternative assessment* Underlies the Constructive Integration of Thinking, Feeling, And Acting Leading to Empowerment for Commitment and Responsibility, *Alternative assessment Review*, 1(2):1-14

- Novak, J. D. (2002). Meaningful learning: The essential factor for conceptual change in limited or inappropriate propositional hierarchies leading to empowerment of learners. *Science Education*, *86*(4):548-571.
- Novak, J. D., & Gowin, D. B. (1984). Concept mapping for meaningful learning. Learning how to learn, p.p:15-54.
- Ou-Yang, F. C., & Wu, W. V. (2017). Using mixed-modality vocabulary learning on mobile devices. *Journal of Educational Computing Research*, 54(8):1043-1069.
- Patmisari et. Al. (2022): Alternative Affective Assessment of Civic Learning in Distance Learning During the Covid Pandemic 19. In Annual Civic Education Conference (ACEC 2021) (pp. 568-575). Atlantis Press.
- Picard, D., Martin, P., & Tsao, R. (2014a). iPads at school? A quantitative comparison of elementary schoolchildren's pen-on-paper versus finger-on-screen drawing skills. *Journal of Educational Computing Research*, 50(2):203-212.
- Przybylski, A. K., Rigby, C. S., & Ryan, R. M. (2010). A motivational model of video game engagement. *Review of General Psychology*, 14(2):154-166.
- Rigby, C. S., & Przybylski, A. K. (2009). Virtual worlds and the learner hero. *Theory* and Research in Education, 7(2):214-223.
- Rudnitzky, A., & Ras, T. A. (2012). *The Bedouin population in the Negev*. Abraham Fund Inititatives..
- Runhaar, P. R., & Sanders, K. (2016). Promoting teachers' knowledge sharing. the fostering roles of occupational self-efficacy and human resources management. *Educational Management Administration & Leadership*, 44(5):794-813.
- Sadik, A. (2008). Digital storytelling: A meaningful technology-integrated approach for engaged student learning. *Educational technology research and development*, *56*(4):487-506.
- Sadilloyevna, F. D. (2022). Peculiar Features of Alternative Assessment in Teaching English as A Foreign Language. *Eurasian Research Bulletin*, 5, 116-119.
- Seilhamer, R., Sugar, A., & Mao, J. (2013). User acceptance of mobile technology: A campus-wide implementation of blackboard's mobile[™] learn application. *Journal of Educational Computing Research, 49*(3):327-343.
- Shamir-Inbal, T., & Blau, I. (2016). Developing digital wisdom by students and teachers. *Journal of Educational Computing Research*, 54(7):967-996.
- Sharkey, J., Clavijo Olarte, A., & Ramírez, L. M. (2016). Developing a deeper understanding of community-based pedagogies with teachers. *Journal of Teacher Education*, 67(4):306-319.
- Shelly, G. B., Cashman, T. J., Gunter, R. E., & Gunter, G. A. (2004). Integrating Technology in the Classroom: Teachers Discovering Computers. 4th Ed. Thomason Course Technology. China Social, Demographic, & Economic Factors. The Bedouin population in the Negev.
- Stalheim-Smith, A. (1998). Focusing on Active, Meaningful Learning. IDEA Paper Number 34.
- Stringer, P., & Hourani, R. B. (2016). Transformation of roles and responsibilities of principals in times of change. *Educational Management Administration & Leadership*, 44(2):224-246.

- Suleiman, Odeh and Murad, Odeh (2013): The reality of the use of information and communication technology and the obstacles to its use in teaching among teachers of the Shoubak District Education Schools, *Al-Balqa for Research and Studies*, *17*(1): 107-138.
- Sun, G., & Shen, J. (2013, July). Teamwork as a service: a cloud-based system for enhancing teamwork performance in mobile learning. In Advanced Learning Technologies (ICALT), 2013 IEEE 13th International Conference on (pp. 376-378). IEEE.
- Szczesiul, S., & Huizenga, J. (2014). The burden of leadership: Exploring the principal's role in teacher collaboration. *Improving Schools*, 17(2):176-191.
- Thawabteh, Ahmed and Al-Saudi, Khaled (2010): Obstacles to applying realistic assessment strategies and tools from the point of view of Islamic education teachers in Tafila Governorate, 2016, Studies, *Educational Sciences*, 43(1): 265-280.
- Vallori, A. B. (2014). Alternative assessment in practice. *Journal of Education and Human Development*, 3(4):10-15640.
- Vermeulen, M., Van Acker, F., Kreijns, K., & van Buuren, H. (2015). Does transformational leadership encourage teachers' use of digital learning materials? *Educational Management Administration & Leadership*, 43(6):1006-1025.
- Wang, H. Y., Liu, T. C., Chou, C. Y., Liang, J. K., Chan, T. W., & Yang, S. (2004). A framework of three learning activity levels for enhancing the usability and feasibility of wireless learning environments. *Journal of Educational Computing Research*, 30(4):331-351.
- Wayne, M. R. (2011). Visiting Classrooms: A Design Study to Support Principals' Instructional Leadership. University of California, Berkeley.
- Wei, W., & Yue, K. B. (2017). Concept mapping in computer science education. *Journal of Computing Sciences in Colleges*, 32(4):13-20.
- White, B. R., & Agarwal, P. K. (2011). *The Principal Report: The State of School Leadership in Illinois*. Illinois Education Research Council.