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The Contribution Level ofTeacher-preparation Institutions (Colleges) in the Acquisition of Constructing Modern Technological Learning Spaces Skills: Relationship to Teaching Performance Level of Novice Teachers

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Abstract- The aim of the current study is to identify the contribution level of teacher-preparation institutions in the acquisition of constructing modern technological learning spaces skills at schools within the Green Line from their novice teachers' perspectives, as well as revealing their level of teaching performance from the novice teachers' perspectives. To achieve its purpose, a descriptive analytical designwas employed. The sample of the study consisted of (390) novice teachers, selected using astratified random sampling method. For data collection, two questionnaireswere developed and administrated to the sample. The results showed that the contribution level of teacher-preparation institutions in the acquisition of constructingmodern technological learning spaces skillsand the level of teaching performanceat schools within the Green Line from their novice teachers' perspectives was high. The results also revealeda significance positive correlation at ($\alpha = 0.05$) between the responses of the study sampleon the contribution level of teacher-preparation institutions in the acquisition of constructingmodern technological learning spaces skillsand the level of teaching performance of schools within the Green Line form theirnovice teachers' perspectives (correlation coefficient = 0.711).

Keywords: Teacher-preparation Institutions, Modern Technology Learning Spaces, Teaching Performance Level.

I. INTRODUCTION

By the end of the 20th century and the beginning of the 21st century, most societies have witnessed significant shifts from the Industrial Age into the Information Age, leading to changes in the educational systems as a response to the nature of life and the requirements of the labor market. Thus, this required a change in the teaching methods, as they focused onteaching different scientific values, trends and skills instead of the focus on teaching facts and urging students to memorize them (Aladas, 2000).

There is no doubt that what concerns the whole universe today is how to go back to our usual life after the passage of this critical period under the COVID-19 pandemic. Many agree that our life after this pandemic will be completely different from what we used to before its spread. During this extraordinary year, our concepts,priorities and ways of thinkinghave changed, so this dictated addressing the educational field?

Over the past yearsand frequently,the Ministry of Education within the Green Line has tried in vain to introduce the technological education course into curricula.At the time, it received no attentiondue to being seenas an unneeded kind of science fiction.Upon the spread of COVID-19, this situation has been reversed; we and our students were obliged to stay homes, and teachers were able, in a record time, to acquire technological skills the Ministry of Education failed over decades to provide them with. Nowadays, what most concerns Ministry of Education officials is how will our return to schools be after the COVID-19 pandemic?

Due to being based on student's self-education, technological learning spaces are considered a key element of the modern educational process in schools. Technological learning spaces are rich environments that stimulate students' curiosity to explore their nature. It consists of several materials and activities through which a student can carry out learning activities without the constant intervention of the educators. These activities, with which students interact and deal to achieve specific educational objectives, contain games, applications, tools and methods of gradual difficulty (Alqdah, 2008). Furthermore, technological spaces also have an important role in students' acquisition of several skills, information and concepts through a zero-restriction interaction with the means and equipment surrounding them. In this response, Morrow and Rand (1991) confirmed that the natural environment's well design and enrichment with appropriate means and tools greatly supports students' acquisition of different concepts, skills and values, making them positive in their education process. Given that many schools are not suitable for preparing a generation able to face the present challenges, it is necessary to

look for an environment of rich stimuli and diversified activities ensuring the quality of the educational outcomes and learners' engagement. Additionally, this would limit the teachers' role in creating the educational settings and providing a motivating environment (Finn, J., 2004).

The way in which a teacher acquires skills during his preparation at different teacher-preparation institutions is very important. It helps him/her to acquire various skills contribute and affect his/her and students' academic achievement. Teacher-preparation institutions have a key and essential role in training and qualifying teachers, since theirresponsibility is to support effective communication channels, and to reinforce teachers' acquisition of modern technological skills to keep pace with the demands of the timesandimprove school environments (Hussein, Hussein, 2010).

Due to the outbreak of the COVID-19, the knowledge explosion and the tremendous development in communication and information technology,the community within the Green Line,like other societies,faces enormous challenges led to the emergence of modern concepts and trends in thefield of learning. Since it is part of society and is affected and influenced by,schoolscannot stand apart from the changes taking place in this environment (Abdin, 2008).

Performance can be defined as every verbal or skillful behavior by an individual that shows his/her ability or inability to perform an action, based on a special cognitive and emotional background (Nitko, 1996: 122). As for "teaching performance", it refers to teacher's actions in a teaching situation, and it is considered the procedural translation of his/her actions and teaching strategies in class management, and his/her contribution to school activities or other actions that may contribute to achieving progress in student learning. (Taha, 1993)

Thamraksa (2004) indicates that teachers should equip their classrooms with activities improving their students' various skills (planning, monitoring, evaluation) since these skills are considered among the most important tools for successful learning. They help students to be self-learned, increase their meta-thinking, design action plans, monitor their implementation and evaluate them. To enable their students on using these skills, teachers need to practice them. Although our skills grow as we get older, experience and Intentional Learning play a key role in developing these important skills more than what maturity alone does. Therefore, it is the responsibility of teachers to help students develop their skills.

Teacher's effective teaching performance leads to the enhancement of students' academic achievement, in addition to its positive impact on the social and academic level. It helps students, as learners, to be more empowered and then be able to easily acquire information and knowledge. The achievement of these skills requires teachers with effective teaching performance who assess their students' performance efficiently and set higher standards for students' achievement (Chamundeswari, 2013).

Al-Barakat and Al Karasneh (2005) reported that a teaching performance characterized by its focus on the diversification of the activities provided to students is one of teachers' success requirements so that there is a diversity of goals, content, experiences, teaching methods, teaching strategies, methods of evaluating students learning, in addition to providing learning opportunities motivate students to learn, challenge their abilities and help them interact with their peers through the active participation in cooperative-based learning activities. Additionally, it provides learning opportunities allowing students to assume responsibility, make decisions and practice sound planning.

Egan (1992) emphasized the need for teachers to employ proper procedures in curriculum planning, implementation and evaluation, and in the selection of teaching strategies focusing on stimulating students' higher mental processes.

II. PREVIOUS LITERATURE:

The researchers reviewed some theoretical studies addressing the theme of active learning or the educational environment, but they found a scarcity in studies addressing the field of technological learning spaces. Though, they researchers benefited from a number of previous studies addressing some of the current study'sdomains.

Ololube (2006) aimed to produce a systematic analysis of teachers' teaching competencies and roles in teaching through the revision of the previous literature and theories addressing such topic. The sample of the study consisted of (300) teachers, principals, supervisors of education in Nigeria between 2002 and 2003. The data were collected from interviews, documents, observation, and questionnaires and were analyzed using both qualitative and quantitative methods. The study indicated teachers' need for professional knowledge and different teaching skills to become effective teachers.

Komendat (2010) sought to develop modern designs for classrooms creating positive atmospheres that promote teaching, learning and creativity through the observation of classrooms at Central Avenue School in Lancaster, NY. To achieve the study purpose, digital plans for remodeling six classrooms were created

using the AutoCAD design program. This study aims to highlight the importance of classroom design and its effects on the creative climate, student behavior, and lesson potential.

Peker (2010) aimed to determine the impact of campus open space design on learners' learning experiences, in addition to addressing the relationship between the learning process and the space in which learning occurs through the revision of the principles of different learning theories, as well as discussing the design standards for indoor and outdoor learning spaces affecting the learning process. The analysis examined various sample areas from the campus of the Middle East Technical University in Turkey as a case study and the triggering design indicators which enhance these experiences, in order to come up with proper design standards for these areas. The study attempted to answer three questions related to the application of learning in open areas, the designing criteria of open spaces for learning, and how does the spatial design of campus open spaces affects students' learning experiences.

Medley (2012) aimed to develop and enhanceteachers'competencies to improve and develop the teachers'performance in Michigan, USA, by establishing and developing mechanisms for measuring teachers' performance. The sample of the study consisted of (256) educational experts, including teachers, managers, experts and supervisors.The studyrevealed that new competencies have appeared and have been added through this matrix of (144) competencies divided into (13) groups. The study also demonstrated the characteristics of an effective teacher throughout the matrix, arranged respectively according to its importance as follows: The teacher who works on permanent professional development, in addition to providing safety and security to students, continuously evaluating students'performance and skills, and his ability to evaluate instructions'effectiveness, and to direct students in their application of problems solving techniques.

Al-Rashidi and Saadeh (2017) aimed to determine the degree to which secondary school teachers and students exercise their roles in active learning from their perspectivein light of a set of variables,in Kuwait. The sample of the study consisted of (95) male teachers, (105) female teachers and (192) students, selectedfrom Kuwait City usingcluster sampling method. To achieve the study purpose, two questionnaireswere developedby the two researchers: the first consisted of (55) items measuringteachers' role in active learning, and the secondconsisted of (21) itemsmeasuring students' role in active learning. The results showed that the degree to which secondary school teachers and students exercise their roles in active learning from the perspectives of secondary schools teachers and students was moderate.

Murtedjo and Suharningsih (2018) sought to identify the role of school principals in creating the appropriate stimulating educational environment for students at primary schools. To achieve the study purpose, the qualitative design based on personal interviews was employed. The sample of the study was selected using the snowball sampling method. The necessary data were collected through in-depth interviews, participant observation and documentation. The result of the study showed that the role of school principals in creating the appropriate stimulating educational environment for students by taking into account the physical condition of the school and the socio-emotional condition is pleasant. It also revealed that school principals have an important role in affording a suitable climate for both teachers and students, by creating an environment characterized by safety and attraction that works to improve the educational learning outcomes inside schools.

Abu Madigham (2018) aimed to identify the role of school principals in developing creativity among primary school teachers in the Negev region, and its relationship to their performance from their perspectives. The sample of the study consisted of (417) teachers from Negev's elementary schools during the academic year (2017-2018), who were selected using a random stratified sampling method. To achieve the study purpose, a descriptive survey design, based questionnaire, was employed. The results of the study showed that the role of the school principals in developing creativity among primary school teachers in Negev was high, and that teachers' performance score in all domains was high. It also showed a positive correlation between school principals' role in developing creativity and the teachers' performance from their perspectives.

Based on the foregoing, it is evident that there is a variety of educational resources addressing the definition of active learning in terms of learners, teachers and teaching methods, and references that serve as a guide for teachers. Therefore, the researchers have benefited from previous studies in terms ofdata analysis and study methodology, and in the method of analysis and interpretation. Additionally, the current study was distinguished from previous studies in its purpose, community, sample, setting and time in the educational field.

The problem of the study and its questions

According to the researchers' limited knowledge, the theme ofeducational spaces as a whole, educational technological space, active learning, its multiple methods and supportive learning centers was not adequately addressed, in addition to the sacristy of itsusage and provisionby organizations. Therefore,

there is a need to address the issue of developing the educational environment in order to provide modern learning spaces support active learning, and to make both teacher and student in an active interaction position. Novice teachers were selected as the sample for this study; due to the great importance of modern technological learning spaces in their professional careers, as it constitutes an important stage in constructingtheir personality.Accordingly, this study attempts to identifyinstitutions' potentialroles in teachers' acquisition modern job skills that affect, in turn, the educational process in terms of keep pace with the rapid developments and changes in the educational field. More specifically, the problem of thestudy can be determined by answering the following questions:

The study sought to answer the following questions:

1. What is the contribution level of teacher-preparation institutions in the acquisition of constructingmodern technological learning spaces skills atschools within the Green Line from novice teachers' perspectives?
2. What is the level of educational performance at schools within the Green Line from novice teachers' perspectives?
3. Is there any correlation between the contribution level of teacher-preparation institutions in the acquisition of constructingmodern technological learning spaces skillsand the level of educational performance at schools within the Green Line from novice teachers' perspectives?

The importance of the study

The current study attempts to identify the contribution level of teacher-preparation institutions in the acquisition of constructingmodern technological learning spaces skills atschools within the Green Line, in addition to identifyingthe role of these spaces to the teaching performance from novice teachers' perspectives. The importance of the study can be summarized in the following points:

First: The theoretical importance:

- The importance of the current study stems from the issue it addresses, as it would provide feedback to colleges and universities about the reality of their performance and the effectivenessof introducing various programs develop teacher's ability onmaking use of the educational technological spaces, and to address the strengths and weaknesses of their training programs provided for teachers, especially since teacher is the core of the educational system.
- It would also be beneficial in enriching and conducting further studies in the fields of education and modern teaching methods, addressing the importance of educational technological spaces.Additionally, researchers and those interested in the issue of developing educational spaces, developing school administrationsand developing educational methods would also benefited from this study.

Second: practical importance

- It is hoped that this study will be beneficial for those in charge of implementing training programs, contributing therefore to the achievement an educational development goal related to preparing educational leaders capable of improving and developing the reality of the school, and creating suitable environments and spaces to achieve active learning and develop education methods.
- The results of this study would contribute to the development of schools' internal and external environment to be able to achieve modern active educational environments view studentsas the center of the educational process.

Objectives of the study

The current aims to:

1. Identify the contribution level of teacher-preparation institutionsin the acquisition of constructingmodern technological learning spaces skillswithin the Green Line from novice teachers'perspectives.
2. Identify the level of educational performance at schools within the Green Line from novice teachers' perspectives.
3. Reveal whether there is a correlation between the contribution level of teacher-preparation institutions in the acquisition of constructingmodern technological learning spaces skillsand the level of educational performance at schools within the Green Line from novice teachers' perspectives.

Limitations of the study

The current study was limited to identifying the contribution level of teacher-training institutions in the acquisition of constructingmodern technological learning spaces skillswithin the Green Line from novice teachers'perspectives at elementary, intermediate and secondary schools within the Green Line in the Northern District, during the second semester of the 2020-2021 academic year.

Terms of the study

Teacher-preparation Institutions (Colleges): Institutions providing programs for teacher qualification in Jordan.

Teachers-preparation colleges are subject to the supervision and control of both the Ministry of Education and the Higher Education Council, since teaching programs are provided,discussed, approved or rejected by these two bodies according to academic and professional principles and standards designed to enhanceteachers' training level (Goedele & Martin, 2003).

Technological learning spaces: They arethe learning and teaching settingswhere students can effectively participate and engage in activities and exercises. They provide for students a rich and varied technological educational climate with a teacher encouraging them to take responsibility for their learning under his/her supervision and directing them towards achieving the desired objectives of the curriculum (Saadah, 2006).

Procedurally, the researchers define it as an integrated learning environment (inside and outside the classroom), that helps students to acquire various creative learning skills through employing modern technical technologies; integrating and employing information effectively in teaching and learning environments; and finding innovative solutions that give student an opportunity to be a partner within the educational process.

Teaching performance level:A set of necessary skills, information and behaviors for teachers to be able to effectively perform their role in teaching (Kamal& Al-Hur, 2003).

Procedurally,the researchers define it as middle school teachers'acquisition level ofthe instrument that will be developed for the purposes of this study.

Green Line: It is political term used to refer to the Palestinian lands over which "Israel" was established in 1948, and whose Palestinian people became part of that state and its political, economic, educational and cultural systems (Abdin, 2008).

III. METHOD AND PROCEDURES

Methodology

The study employs a descriptive, analytical design based on a questionnaire, as it attempts to provide data and facts about the problem of the study in order to explain it and determine its significance.

Population of the study

The population ofstudy consists of all novice school teachers in Arab schools within the Green Linein the Northern District, during the first semester of 2020-2021 academic year, totaling (1000) teachers.

The sample of the study

The study sample was selected usinga stratified random sampling method. The study sample consisted of (390) male and female teachers; i.e. (40%) of the study population.

Study Instruments

To achieve the study objectives, two questionnaires were developed by reviewing literature and previous studies related to the study subject, they were as follow:

1. **First Instrument**: A questionnaire measuringtechnological learning spaces, which is related to the participation level of teacher-preparation institutions in the acquisition of constructing modern technological learning spaces skillswithin the Green Line from novice teachers' perspectives.
2. **Second Instrument**: A questionnaire measuring the level of teaching performance among teachers.

At the beginning, the domains of each instrument were defined, then the items were wrote after reviewing the literature and experts opinions such as the studies of Komendat (2010), Murtedjo and Suharningsih (2018), Abu Madigham (2018). The first instrument consisted in its primary format (22) items distributed on (3) domains, while the others consisted of (28) items distributed on (3) domains.

Instruments' Validity and Reliability

Face validity obtained through distributing the study instruments on a set jury consisted (15) faculty members specialized in educational planning, pedagogy, educational management, psychology, curricula and teaching methods who works in the universities within the Green Line; in order to give their remarks concerning the instruments' clarity, and content validity, and to provide any necessary amendments. Based on their remarks, 80% of the proposed amendments were taken into consideration. The first instrument consisted in its final format of (29) items distributed on (3) domains, while the other one consisted of (28) items.

First Instrument: The participation level of teacher-preparation institutions in the acquisition of constructingmodern technological learning spaces skills within the Green Line from novice teachers' perspectives.

To obtain construct validity, the instrument applied on a pilot study consisted of (37) teachers; in order to calculate correlation coefficients for the items relation to the instrument and their domains. The results showed that correlation values of the domains to the total score ranged between (0.808-0.967), enter-

correlation values for the domains ranged between (0.637-0.890), they considered being suitable for the current study objectives. Additionally, correlation values of the items to the total score were appropriate; as the correlation values of the items and the domains ranged between (0.565-0.946), and of the items and the total score ranged between (0.451-0.819), which considered being suitable for the current study objectives.

To verify instrument reliability and internal cohesion reliability for the instrument and its domains, Cronbach Alpha Coefficient calculated for the data obtained from the first administration for the pilot study. To verify retest reliability for the instrument, Test-Retest calculated by administrating the instrument and re-administrating it after two weeks on a pilot study consisted of (37) teachers. Then, Pearson Correlation was calculated between their scores on the scale, as shown in table (1).

Table (1): Cronbach Alpha Internal Consistency Reliabilities and Retest Reliability for the Instrument Domains

Domain	Retest Reliability	Internal Consistency	Items Number
Planning	0.92	0.91	7
Implementation	0.96	0.93	12
Supervising	0.95	0.92	10
Total	0.97	0.92	29

It can be noted from table (1) that the values Cronbach Alpha Internal Consistency totaled (0.92), and that Retest reliability for the instrument totaled (0.97), which considered appropriate for the study objectives.

Second Instrument: Teaching performance level

To obtain construct validity, the instrument applied on a pilot study consisted of (37) teachers; in order to calculate corrected correlation coefficients for the items relation to the instrument and their domains. The results showed that correlation values of the domains to the total score ranged between (0.76-0.88), enter-correlation values for the domains ranged between (0.49-0.60). Additionally, Pearson correlation values of the items and their domains; and between items to the total score were appropriate; as the correlation values of the items and the domains ranged between (0.31-0.85), and of the items and the total score ranged between (0.33-0.74), which considered being suitable for the current study objectives.

To verify instrument reliability and internal cohesion reliability for the instrument and its domains, Cronbach Alpha Coefficient calculated for the data obtained from the first administration for the pilot study. To verify retest reliability for the instrument, Test-Retest calculated by administrating the instrument and re-administrating it after two weeks on a pilot study consisted of (37) teachers. Then, Pearson Correlation was calculated between their scores on the scale, as shown in table (2).

Table (2): Cronbach Alpha Internal Consistency Reliabilities and Retest Reliability for the Instrument Domains

Domain	Retest Reliability	Internal Consistency	Items Number
Planning	0.91	0.90	7
Implementation	0.85	0.82	10
Evaluation	0.90	0.90	11
Total	0.93	0.93	28

It can be noted from table (2) that the values Cronbach Alpha Internal Consistency totaled (0.93), and that Retest reliability for the instrument totaled (0.93), which considered appropriate for the study objectives.

Statistical Standard

To calculate total degree of the instruments, 5 point Likert scale (Very High = 5, High = 4, Moderate = 3, Low = 2, Very Low = 1) was employed. To define the level of the mean score for each item, each domain, and the total score, the following equation was used:

The higher limit (5) – the lowest limit (1)

Number of categories (5)

1-5 =0.8

5

And adding (0.8) to the end of each category

The following scale was adopted to analyze the results:

- 1.00–1.80 Very low
- 1.80–2.60 Low
- 2.60–3.40 Moderate
- 3.40–4.20 High

- 4.20–5.00 Very high

Statistical Analysis

To answer the first and the second questions, means and standard deviation were calculated, as for the third question, Pearson Correlation was calculated between the levels of teacher-preparation institutions in the acquisition of constructing modern technological learning spaces skillsand the level of developing teaching performance within the Green Line from their novice teachers' perspectives.

IV. Results and Discussion

The study aimed to reveal the contribution level of teacher-preparation institutions in the acquisition of constructing modern technological learning spaces skills at schools within the Green Line and its relationship to the level of developing teaching performance from novice teachers' perspectivesby answering the following questions.

Results of the First Question: What is the contribution level of teacher-preparation institutions in the acquisition of constructing modern technological learning spaces skills at schools within the Green Line from novice teachers' perspectives?

To answer this question, means and standard deviations for the contribution level of teacher-preparation institutions in the acquisition of constructing modern technological learning spaces skills at schools within the Green Line from novice teachers' perspectives were calculated as shown in table (4).

Table (4): Means and Standard Deviations of the Contribution Level of Teacher-Preparation Institutions (Colleges) in the Acquisition of Constructing Modern Technological Learning Spaces Skills

Rank	Item	Mean	Standard Deviation	Level
1	Institutions collaborate with the school in developing plans to invest technological learning spaces in school	3.61	1.132	High
2	Institutions stimulate school to develop plans related to the use of digital technology in learning activities in schools	3.61	0.960	High
3	Institutions guide school on how to invest the local environment as one source of active learning	3.48	1.128	High
4	Institutions encourage school to create technological spaces appropriate to the teaching and learning objectives in school	3.42	1.042	High
5	Institutions stimulate school to use teaching methods which include active student learning by constructing technological spaces	3.42	1.008	High
6	Institutions encourage school to operate task forces of teachers to regulate the class environment and technological spaces	3.38	1.122	Moderate
7	Institutions encourage school to develop a plan to manage various educational subjects using technological spaces	3.34	1.134	Moderate
	Planning	**3.46**	**0.949**	**High**
1	feedback is taken from schools about constructing different technological spaces in and out of classroom	3.77	0.949	High
2	Institutions encourage school for asking teachers continuously to use technological means in order to define the student various abilities	3.55	1.052	High

3	Encourages teachers to construct student-centered and educational-stimulating technological spaces	3.53	0.998	Moderate
4	Working on finding technological environment appropriate with the individual differences among students in the college	3.48	1.105	High
5	Aims to develop creative thinking among novel teachers	3.48	1.038	High
6	Encourage the productivity of technological spaces develop novel teachers' critical thinking	3.48	1.091	High
7	Increases novel teachers' motivation by training and urging them to use technology	3.45	1.027	Moderate
8	Seeks to ensure the existence of a technological environment that improves novel teachers' thinking level	3.44	1.069	High
9	Colleges provide secure, friendly, and supportive environment for educational initiatives related to constructing technological spaces	3.35	1.157	Moderate
10	Aims to be a real supporter to novel teachers in constructing and make use of technological spaces	3.29	1.130	Moderate
11	Contributes in the durability of the use of digital technology in teaching and learning at school	3.29	1.111	Moderate
12	Collaborative between the institution and school in order to provide the necessary requirements to achieve the modern educational objectives	3.11	1.116	Moderate
	Implementation	**3.44**	**0.929**	**Moderate**
1	Make sure that novice teachers use digital technology in teaching and learning during hands on activities at school	3.56	1.036	High
2	Helps in guiding novice teachers on selecting the appropriate requirements to construct technological spaces in school	3.50	1.013	High
3	Follows the continuous improvement and renewal processes through the appropriateness of the technological environment to the educational requirements	3.49	0.972	High
4	Supports teachers to review educational and psychological research related to improving the educational and learning process and constructing technological spaces	3.48	1.070	High
5	Asks teachers to employ extra-curricular activities by using technology during hands on activities	3.47	1.053	High
6	Provides teachers needs of technological means and tools out of the classroom	3.42	0.997	High
7	Helping principal to provide school with technology which help achieving the desired objectives	3.15	1.162	Moderate
	Supervision	**3.44**	**0.911**	**High**

Table (4) shows that the total mean score was high (M = 3.44).Researcher attributes the moderate level of colleges' interest in providing novel teachers ability to build supportive technological learning spaces to their focus in the school on other areas concerned with aspects of teacher development, and their focus on academic achievement and to achieve the written educational objectives. Additionally, colleges focus on organizing the educational environments well which represents the best method to affect the human behavior, as it enables self-learning and meaningful learning for students. Furthermore, colleges support novel teachers by providing them with needed methods and models required in schools for teachers to use in the various technological learning spaces. This result is consistent with the results provided in the studies of Ololube (2006), Komendat (2010), Peker (2010), Abdul Bari (2017) and Al-Rashidi (2017).

Results of the Second Question: What is the level of educational performance at schools within the Green Line from novice teachers' perspectives?

Means and standard deviations were calculated for the study sample responses on the instrument domains and the items of each domain, as follow.

Table (5): Means and Standard Deviations of Educational Performance in a Descending Order

Rank	Item	Mean	Standard Deviation	Level
1	Designing a comprehensive quarterly plancovering all educational content	3.95	0.816	High
2	Makes sure on designing a clear, comprehensive and implementable quarterly plan in light of technological learning spaces	3.89	0.749	High
3	Take into account compatibility of daily-plans with the quarterly plan	3.88	0.688	High
4	Diversificationof technological educational activities and methods that suites students' needs	3.85	0.822	High
5	Take into account diversity of teaching outcomes in the daily-plan	3.79	0.805	High
6	Assures designing a clear, comprehensive and implementable quarterly plan using different technological spaces	3.73	0.968	High
7	Distributes the lesson time appropriately on the activities	3.91	0.737	High
	Planning	**3.86**	**0.636**	**High**
1	Selects carefully evaluation methods comply with the lesson objectives	3.93	0.763	High
2	Designs lessons to achieve for the integrated development of student personality through technological learning spaces	3.90	0.839	High
3	Provides difference technological activities acquiring various levels of thinking skills	3.88	0.773	High
4	Provides technological activities encourage students to engage in dialogue, discussion and inquiry to deepen their understanding and achievement	3.87	0.864	High
5	Uses interesting technological bootstrap methods taking into account the appropriate time	3.85	0.783	Moderate

6	Chooses carefully technological teaching methods that take account of individual differences between students	3.83	0.818	High
7	Applies new technological ideas which focuses on results	3.82	0.760	High
8	Focuses on diversification in technological teaching methods in the classroom through educational spaces	3.60	1.131	High
9	Invests school's technological facilities to support the teaching learning process	3.52	1.112	High
10	Provides remedial programmes to students through technological learning spaces	3.43	1.127	Moderate
	Implementation	**3.76**	**0.738**	**High**
1	Uses different evaluation methods	3.71	0.752	High
2	Encourages students for self-evaluation	3.62	0.833	High
3	Uses technological tools and various methods to evaluate students' learning	3.75	0.771	High
4	Implement concluding technological activities in the lesson as an evaluation method for students	3.65	0.864	High
5	Uses formative and concluding evaluation methods	3.59	0.824	High
6	Developing test according to the specifications defined	3.84	0.761	High
7	Develop evaluation plan consistent with the teaching objectives	3.90	0.769	High
8	Analyzes students results using quantitative and qualitative methods	3.77	0.873	High
9	Compares students' performance with expected one	3.73	0.812	High
10	Employs evaluation results to improve teaching practices	3.83	0.752	High
11	Provides students with feedback related to their evaluation results	3.75	0.912	High
	Evaluation	**3.74**	**0.647**	**High**

Table (5) shows that the means scores for all the domains were high, in addition to the total mean score (M = 3.74, Std. Devi. = 0.647). This result can be attributed to the fact that colleges significantly focus on imparting knowledge in order to achieve the educational objectives by focusing on the educational process' entries. Colleges focus on providing teachers with the necessary activities able to improve their different skills (Planning, implementation, evaluation). Thus, these skills are considered one of the most important tools for successful learning as they help students to achieve self-learning and increase the thinking awareness process and designing work plans, monitoring their implementation and assessing them. Also, teachers must apply these skills in order to enable their students to use them. This result is consistent with the results provided by Goedele and Martin (2009), Medley (2012), and Abu Madigham (2018).

Results of the Third Question: Is there any correlation between the contribution level of teacher-preparation institutions in the acquisition of constructing modern technological learning spaces skills and the level of educational performance at schools within the Green Line from novice teachers' perspectives?

In order to answer this question, Pearson Correlation was calculated between the acquisition level of constructing modern technological learning spaces skills and the level of educational performance, as shown in table (6).

Table (6): Pearson Correlation for Study Sample Estimations for the Contribution of Teacher-Preparation Institutions in the Acquisition of Constructing Modern Technological Learning Spaces Skills and the Level of Educational Performance within the Green Line from Novice Teachers' Perspectives

Domain	Correlation	Planning	Implementation	Evaluation	Educational Performance Level
Planning	Correlation Coefficient R	0.617**	0.684**	0.588**	0.673**
	Sign	0.00	0.00	0.00	0.00
	Number	390	390	390	390
Implementation	Correlation Coefficient R	0.646**	0.717**	0.624**	0.709**
	Sign	0.00	0.00	0.00	0.00
	Number	390	390	390	390
Supervision	Correlation Coefficient R	0.604**	0.657**	0.576**	0.654**
	Sign	0.00	0.00	0.00	0.00
	Number	390	390	390	390
Total	Correlation Coefficient R	0.651**	0.718**	0.624**	0.711**
	Sign	0.00	0.00	0.00	0.00
	Number	390	390	390	390

It can be noted from the previous table that there is a statistically positive significant correlation at (α = 0.05) between the estimations of the study sample concerning the contribution level of teacher-preparation institutions in the acquisition of constructing modern technological learning spaces skills and the level of educational performance at schools within the Green Line from novice teachers' perspectives (Correlation Coefficient = 0.711), which shows that the increase in the teacher-preparation institutions in the colleges in the acquisition of constructing modern technological learning spaces skills, the level of educational performance level increase within the Green Line from novice teachers' perspectives. This result can be attributed to the fact that planning, constructing and implementation of technological learning spaces may contribute significantly in improving educational performance. Additionally, constructing technological learning spaces that work in an environment rich of stimulus trigger intrigues students to discover its secrets. Constructing spaces work on finding the appropriate environment and development of various materials and activities where students perform the learning activities without the need of teachers' continuous intervention. These activities where student interact and deal with to accomplish specific educational objectives include several options, games, applications and tools graded in difficulty levels, thus, technological spaces improve educational performance.

V. RECOMMENDATIONS

In light of its results, the study recommends the following:

1. Constructing technological learning spaces enhancing the thinking skills of novice learners at schools.
2. Constructing technological learning spaces focusing on managing the educational themes and integrating them into various courses during teacher training.
3. Increasing the participation level within schools in constructingtechnological learning spaces.
4. Conducting further studies addressing the technological learning spaces.

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