SECONDARY SCHOOL TEACHERS' ACQUISITION OF HOMEWORK ASSESSMENT SKILLS IN E-LEARNING

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Abstract

The study investigated secondary school teachers' acquisition of homework assessment skills in e-learning during COVID-19 at Irbid governorate secondary school, Jordan. The study selected a convenient random sample totaling (360) secondary school students. For data collection, a questionnaire was used. The study showed that the level of secondary school teachers' acquisition of homework assessment skills in e-learning was moderate from students' point of view. It also showed that no statistically significant differences in the level of secondary school teachers' acquisition of homework assessment skills in e-learning from students' point of view in light of gender and grade level. In light of these results, some recommendations were suggested.

Key words: Homework Assessment, Secondary Schools, Teachers Acquisition, E-learning.

Introduction

In the educational process, there is a set of strategies, methods, and tools that teachers follow in order to enhance students' learning and achievement. One of them is homework, which is considered a main educational strategy through which teachers can develop students' knowledge, instill the information provided to them in the class, and achieve continuous learning. In light of the developments of the educational process and adoption of e-learning, teachers' assessment for homework has changed and required teachers to enhance their assessment skills in order to serve the educational process.

Homework is viewed as an important part of a student's education that can add a lot to his development, and it has value in the growth of students and in the creation of knowledge. This tool builds a connection between both school and home, as it helps students to keep up with what they learn daily in the classes (Ul Haq, Shakil & Ud Din, 2020).

In this regard, Blikstad-Balas (2016) confirms that homework is an important educational tool; since it provides students with the opportunity for the independent practice of the subjects taught in the classroom, which in turn enhances students' knowledge and encourages them to master the lessons being taught.

Songsirisak & Jitpranee (2019) defined homework as "tasks assigned to students by teachers that are meant to be carried out during non-school hours". While Olaniyi (2018) defines it as the tasks assigned for students for completion outside the classroom in order to reinforce the newly acquired skills and knowledge in the class.

There are different forms for homework where it can be in the form of prep for a new topic, homework in the form of an extension of a specific subject, others in the form of exercises that help students to master certain skills, creative homework that combine between a set of concepts and skills in order to solve a specific exercise, and reading's homework to serve the content of the lesson. Additionally, there is homework that is considered a review for previous experiences in order to instill the information in the human mind and use it in the new learning context, other to develop the new and the future learning experiences, and homework to develop specific educational experiences and are given to some distinguished students for creativity and innovation, or the underachievers to remedy an educational experience or to develop a specific skill (Shiber, 2013).

Furthermore, there are a set of standards that must be taken into account when assigning homework to students which include defining the aim of the homework by the teacher; so that it becomes easier for students to know how they will do the homework as intended by their teacher, the second standard is that the size of homework allocated to students should be appropriate depending on the school stage, the third is providing feedback for students on the assigned homework; which will make the students feel that interest of their teacher, and that will reflect on their performance positively. The final standard is minimizing parental involvement in homework since many parents abuse their son when they do the homework in his place, while the positive role of the parents lies in following their son while doing the homework (Al-Thmaly, 2016).

As Amua-Sekyi (2016) stated assessment is a process that evaluates the extent to which students developed their knowledge, understanding, and abilities, it also aims to provide information about what has been learned. Assessment is considered integral to the teaching-learning activities which mediate the interaction between the teacher and the students in the classroom. It is defined as a process administered by the teacher in order to define students' mastery level of the learning content, which can take place in and outside the classroom (Syaifuddin, 2018).

There is a set of homework assessment skills that teachers employ when assessing students' homework which include:

- Immediate feedback, is defined as direct feedback that the teacher provides for students directly after each response and after finishing the homework (Qi, Rajab, Haladin, Wang & Fu, 2020). The immediate feedback provided for students as soon as they answer a question or complete their assignment plays a significant role in promoting the retention of learned information (Masadeh & Elfeky, 2017).

- Postponed feedback, is the type of feedback that is provided after students engage in some practice activities. It's considered an effective assessment skill; because when an error is corrected immediately, incorrect responses cause interference with correct responses, which hinders learning, while delaying feedback allows the error to dissipate and be forgotten, causing no interference when correct answers are only provided at some other time (Fu & Li, 2020).

- Grading, is an assessment skill that aims to evaluate students' performance based on their understanding of the learning content and in relation to other areas including student effort, conduct, and attitude. Grading provides students with feedback related to the strengths and weaknesses in their knowledge and skills (Chiekem, 2015).

- Monitoring, is an activity that puts students within an interaction with didactic experiences. Monitoring is pursued by the teacher with aim of keeping track of students learning and providing instructional decisions and feedback to students on their progress (Nunes, Pirovani, Silva, Butarelo, Rossini, Costa, Nunes & Martins, 2018).

Assessment as indicated by Oyinloye and Imenda (2019) is considered one of the educational tools that can be used for multiple purposes, one of them is maximizing learning as well as increasing students' motive, improving their performance so they can meet pre-specified objectives and standards. Therefore, assessment is viewed as an important indicator of students' achievement and success, and to define the cause of success or failure during learning.

On the other hand, and nowadays, e-learning has become an important alternative to the traditional learning method, it was first designed in order to provide individuals who are unable to receive formal education as full-time students the opportunities to complete their education. Today, its function expanded to include all students at universities and schools, in response to the increasing demand for e-learning due to its flexibility, and accessibility to reach a wider audience (Azhari & Ming, 2015).

e-learning is defined as a learning method and technique that presents the learning curricula via the Internet or any other electronic media, and the parties of the educational process interact through these media with the aim of achieving the educational objectives (Gul, 2015). As stated by Arkorful and Abaidoo (2014) e-learning refers to the use of information and communication technologies in order to access online learning-teaching resources.

This teaching method has a number of advantages which include increasing the communication between the students and between the students and the school, in addition to easy access to the teacher outside the working hours, transfer of educational experiences. E-learning also models the lessons and replicates the educational practices, it also provides the continuous availability of curricula, which is a useful feature for those who want to learn according to their time. Furthermore, it is considered multiple methods of student assessment and reduces the administrative burden for the teacher (Abed, 2019).

Thus, since it is important for educators to embrace advanced technology throughout teaching, it has become for them to change their behaviors, teaching styles, assessment methods, etc. in order to adapt to the new learning requirements and focus on the requirements of learners (Al-Rawashdeh, Mohammed, Al Arab, Alara & Al-Rawashdeh, 2021).

A set of studies addressed homework and its effect on students' learning. Al-Thmaly (2016) conducted a study in order to investigate the effect of homework on students'

achievement and learning retain among fifth-grade students. The sample consisted of (66) fifth-grade students distributed into two equal groups: A experimental group that receive teaching with assigned homework, and a control group that receive teaching without assigned homework. In order to achieve the study objectives, the researcher developed an achievement test in addition to homework on the learning subjects. It has been found a statistically significant difference in students' achievement in favor of the students of the experimental group, further, a statistically significant difference was found in students' learning retain in favor of the students of the experimental group.

Through a meta-analysis of (4) research papers, Stevenson (2021) examined the impact of homework on academic success. The results indicated that homework has a small effect on increasing academic achievement, it also indicated that homework is often used as a strategy for closing the achievement gap.

Another study by Clara (2021) in Pennsylvania aimed to define elementary teacher beliefs regarding homework and its effectiveness related to learning especially during the Corona pandemic. In order to achieve the study objectives, (6) elementary school teachers were interviewed. The results showed that despite Changes imposed by the Corona pandemic, the teachers kept positive perceptions about homework, given that understanding homework from the teachers' perceptions is critical.

In USA, Smith, Walker and McKenna (2022) conducted a study in order to define the predictive ability of homework characteristics on advanced mathematics achievement and students' attitude toward it among 12th-grade students. To achieve the objectives of the study, content analysis was performed on (120) previous studies related to the study topic. The results showed that the use of homework assignments that required students to find one or more applications of the content covered in class was a statistically significant positive predictor of students' positive attitude toward learning advanced mathematics and students valuing advanced mathematics. Additionally, the results found that discussing homework in class was a negative predictor of students' attitudes toward learning advanced mathematics. The results also found that using the internet to discuss math topics with other students and to find information was significantly, positively associated with both attitudinal outcomes and that using the internet to communicate with the teacher was positively associated with students' positive attitude toward learning advanced mathematics.

The problem of the Study

Homework is an integral part of the teaching-learning process since teachers can rely on them as a tool to instill the learning content in students' minds. As such, there is a need for teachers to have the necessary skills to provide students an immediate and postponed feedback concerning the quality of their homework completion, pros and cons in the homework. This makes it important for teachers to give students suitable and adequate information about their homework so that it can be used as a complementary tool to make students master the learning content.

Related literature and previous studies have documented the pivotal rule of homework in the learning-teaching process. For example, Ul Haq, Shakil and Ud Din (2020) stated that homework, if effectively employed, can help teachers obtain a clear picture about how much students have mastered the learning content provided in the classroom. Affirming this fact, Blikstad-Balas (2016) added that homework can play a significant role in the classroom by helping teachers make students master the learning content outside the classroom by giving them learning tasks able to motivate students to review what was learned in the classroom at home so that they can acquire what was given.

The Questions of the Study

- What is the level of secondary school teachers' acquisition of homework assessment skills in e-learning from secondary school students' point of view?
- Are there statistically significant differences at (α = 0.05) in the level of secondary school teachers' acquisition of homework assessment skills in e-learning in light of gender, grade level?

Significance of the study

The significance of the current study stems from the fact that it addresses one of the most strategies in teaching which is homework and provides a set of proposals for the development of homework assessment skills among teachers. Furthermore, it attempts to drive the attention of the educators and those in charge of the educational process towards the importance of developing teachers' assessment skills, so that they can effectively apply them in e-learning, especially in light of the outbreak of COVID-19 pandemic, which made e-learning essential in the learning process. In addition to developing a set of procedures that can be adopted by teachers to appropriately develop their assessment skills.

Definitions

Homework: The tasks assigned for students for completion outside the classroom in order to reinforce the newly acquired skills and knowledge in the class (Olaniyi, 2018).

E-learning: A learning method and technique that presents the learning curricula via the Internet or any other electronic media, and the parties of the educational process interact through these media with the aim of achieving the educational objectives (Gul, 2015).

Homework Assessment Skills:

Methods and Procedures

Method of the Study

In order to achieve the study objectives, the descriptive-analytical design was employed.

Population and Sample of the Study

The study population consisted of all secondary school teachers in Irbid governorate, who work in the second semester of the educational year 2021/2022. While the study sample consisted of (630) secondary school students selected randomly. Table (1) shows the distribution of the study sample according to the study variables.

Table (1): Distribution of the Study Sample According to the Study Variables

Variable	Category	Number	%
Gender	Male	296	47
	Female	334	53
Grade Level	10th Grade	355	56.3
	11th Grade	275	43.7
Total		360	100%

Instruments of the Study

To achieve the objectives of the study, the researchers developed a questionnaire that measures the level of secondary school teachers' acquisition of homework assessment skills by reviewing a set of studies.

Content Validity

To check content validity, a jury of (4) specialized members of faculty members in educational administration and fundamentals were asked to give their remarks about the items' suitability for the purpose of the study, the authenticity of its phrasing, clarity, and their appropriateness to the domain they belong to. (80%) of the proposed amendments by the juries were taken into consideration.

Construct Validity

To obtain construct validity, correlation coefficients between the items and the total score were calculated through a pilot sample consisting of (30) teachers. The correlation value indicates validity significance for each item, since it indicates the correlation value between the item and the total score from one hand and between each domain and the total score on the other hand. The correlation coefficient of the items and the total score ranged between (0.43-0.92), and with the domain (0.39-0.84). since all correlation coefficients were significant, no item was deleted from the questionnaire.

Reliability

To verify the instrument reliability, test-retest method was used by administrating the instrument and re-administrating it after two weeks on a sample consisting of (30) teachers selected form the same population and out of the original sample. Pearson's correlation factor was calculated between their responses in both times. Then, Pearson Correlation was calculated between their scores on the scale.

Furthermore, Cronbach Alpha Coefficient for internal consistency reliabilities was calculated, it ranged between (0.79-0.88), while test-retest ranged between (0.86-0.91).

Statistical Standard

5-Point Likert scale (Strongly agree = 5, agree = 4, neutral = 3, disagree = 2, strongly disagree = 1) was employed by giving each item a score ranging from strongly disagree to strongly agree. The following scale was adopted to analyze the results: (1.00-2.33: low, 2.34-3.67: Moderate, 3.68-5.00: High), By using the following equation: (The higher limit (5) - the lowest limit (1)) / Number of categories (3) = (1-5) / 3 = 1.33. And adding (1.33) to the end of each category

Results of the Study and Discussion

First Question: 'What is the level of secondary school teachers' acquisition of homework assessment skills in e-learning from secondary school students' point of view?'

To answer this question, means and standard deviations of the level of secondary school teachers' acquisition of homework assessment skills in e-learning from secondary school students' point of view, as seen in the following table.

Table (2): Means and Standard deviations for of the level of secondary school teachers' acquisition of homework assessment skills in e-learning from secondary school students' point of view in a descending order

Rank	Number	Domain	Means	Std. Devi	Level
1	1	Immediate Feedback	3.06	.717	Moderate
2	2	Postponed Feedback	2.89	.671	Moderate
3	3	Grading	2.83	.733	Moderate
4	4	Monitoring	2.73	.765	Moderate
		Total score	2.88	.632	Moderate

Table (2) shows that the means ranged between (2.73-3.06) as immediate Feedback ranked first (M = 3.06), while monitoring ranked last (M = 2.73), the mean of the total score is (2.70) with a moderate level. This result may be explained by that students do not have the necessary information to make objective judgment teachers assessment skills. Furthermore, assessment skills is a behavior that is both visible and clear but there is a hidden part in such process students can not see and this what resulted in a moderate level of assessment skills among teachers.

Immediate feedback is situational in the classroom and this means that teachers can give students accurate assessment because they are indirect contact with students at the classroom. While monitoring ranked last and this implies that monitoring is a skill that needs a lot of experience and academic competence by teachers, and can not be obvisouly observed by students.

Additionally, means and standard deviations for the study sample responses on the items of the instrument domains were calculated as follows.

First Domain: Immediate Feedback

Table (3): Means and Standard deviations of items related to Immediate Feedback in a Descending Order

Rank	Number	Item	Means	Std. Devi.	Level
1	4	Teachers use clear language in giving ack	3.48	1.030	Moderate
2	1	Teachers have the necessary knowledge about nts' performance	3.31	.986	Moderate
3	2	Teachers can give students accurate nation about their level	3.03	1.275	Moderate
4	5	Teachers give immediate feedback individually	2.80	1.237	Moderate
5	3	Teachers use previous information about nts to correct their misconceptions	2.70	1.139	Moderate
		Immediate Feedback	3.06	.717	Moderate

Table (3) shows that the means ranged between (2.70-3.48) as item (4) stating "Teachers use clear language in giving feedback" ranked first (M =3.48), while item (3) stating "Teachers use previous information about students to correct their misconceptions" ranked last (M = 2.70). Mean of the total score for Immediate Feedback is (3.06) with a moderate level.

Second Domain: Postponed Feedback

Table (4): Means and Standard deviations of items related to Postponed Feedbck in a Descending Order

Rank	Number	Item	Means	Std. Devi.	Level
1	7	Teachers develop logs about students' performance	3.31	1.126	Moderate
2	6	Teachers are able to contact parents to help them correct students' misconceptions	3.25	1.005	Moderate
3	8	Teachers contact school administration about the status of low achievers	2.77	1.225	Moderate
4	9	Teachers prepare remedy plans to help students correct their mistakes	2.66	1.103	Moderate
5	10	Teachers resort to individualize learning for helping students	2.45	1.001	Moderate
		Postponed Feedback	2.89	.671	Moderate

Table (4) shows that the means ranged between (2.45-3.31) as item (7) stating "Teachers develop logs about students' performance" ranked first (M = 3.31), while item (10) stating "Teachers resort to individualize learning for helping students" ranked last (M=2.45). Mean of the total score for Postponed Feedback is (2.89) with a moderate level.

Third Domain: Grading

Table (5): Means and Standard deviations of items related to Grading in a Descending Order

Rank	Number	Item	Means	Std. Devi.	Level
1	14	Grading is used for academic orientations	3.48	1.030	Moderate
2	11	Grading is based on well-defined norms	3.24	1.100	Moderate
3	12	The grading system is fair	2.50	1.191	Moderate
3	15	Grading takes into account individual ences	2.50	1.191	Moderate
5	13	The results of the grading system are easily ined	2.45	1.187	Moderate
		Grading	2.83	.733	Moderate

Table (5) shows that the means ranged between (2.45-3.48) as item (14) stating "Grading is used for academic orientations" ranked first (M =3.48), while item (13) stating "The results of the grading system are easily explained" ranked last (M = 2.45). Mean of the total score for Grading is (2.83) with a moderate level.

Forth Domain: Monitoring

Table (6): Means and Standard deviations of items related to Monitoring in a Descending Order

Rank	Number	Item	Means	Std. Devi.	Level
1	16	Teachers pay special attention to students' ...mic behaviors	3.31	1.126	Moderate
2	17	Teachers use effective tools to have clear ...mation about students	2.70	1.139	Moderate
3	19	Teachers take students' points of view into ...deration in assessment	2.70	1.198	Moderate
4	20	Teachers collaborate with their colleagues ... assessing students performance	2.54	1.034	Moderate
5	18	Teachers are always keen to students' ...sts	2.39	1.070	Moderate
		Monitoring	2.73	.765	Moderate

Table (6) shows that the means ranged between (2.39-3.31) as item (16) stating "Teachers pay special attention to students' academic behaviors" ranked first (M = 3.31), while item (18) stating "Teachers are always keen to students' interests" ranked last (M =2.39). Mean of the total score for Monitoring is (2.73) with a moderate level.

Second Question: 'Are there statistically significant differences at (α = 0.05) in the level of secondary school teachers' acquisition of homework assessment skills in e-learning in light of gender, grade level?'

To find out the equality between the groups, means and standard deviations for the level of secondary school teachers' acquisition of homework assessment skills in e-learning were calculated due to Gender and Grade Level variable, to find out whether there are statistical significant differences in these means, t-test analysis was conducted, the results are shown in tables below.

Gender

Table (7): T-test results of the level of secondary school teachers' acquisition of homework assessment skills in e-learning related Gender variable

	Gender	N	Mean	Std. Deviation	t	df	Sig. (2-tailed)
Immediate Feedback	Male	296	3.08	.703	.402	628	.688
	Female	334	3.05	.731	.403	623.754	.687
Postponed Feedback	Male	296	2.90	.645	.580	628	.562
	Female	334	2.87	.694	.583	626.628	.560
Grading	Male	296	2.83	.728	-.009	628	.993
	Female	334	2.83	.739	-.009	620.984	.993
Monitoring	Male	296	2.74	.748	.383	628	.702
	Female	334	2.72	.781	.384	624.240	.701
Total score	Male	296	2.89	.613	.381	628	.703
	Female	334	2.87	.650	.383	625.533	.702

Table (7) shows there are no statistically significant differences at (α= 0.05) due to gender variable all domains and in the total score. This result may be explained by the fact that students from both genders are exposed to the same learning materials which take into consideration the whole student regardless of his gender. Additionally, assessment is a systematic behavior that is based on well-defined steps that both male and female teachers have.

Grade Level

Table (8): T-test results of secondary school teachers' acquisition of homework assessment skills in e-learning related Grade Level variable

	Grade Level	N	Mean	Std. Deviation	t	df	Sig. (2-tailed)
Immediate Feedback	10th Grade	355	3.07	.717	.205	628	.837
	11th Grade	275	3.06	.719			
Postponed Feedback	10th Grade	355	2.89	.669	-.111	628	.911
	11th Grade	275	2.89	.675			
Grading	10th Grade	355	2.85	.732	.854	628	.394
	11th Grade	275	2.80	.736			
Monitoring	10th Grade	355	2.72	.759	-.483	628	.629
	11th Grade	275	2.75	.775			
Total score	10th Grade	355	2.88	.630	.130	628	.897
	11th Grade	275	2.88	.636			

Table (8) shows There are no statistically significant differences at (α= 0.05) due to the grade Level variable in all domains and in the total score. This result reflects the fact that assessment is a process ruled by a set of procedures that teachers in the different grade levels master. This means that students can see and observe what teachers do while assessing their homework and this does not vary across grade levels.

Recommendations

In light of the results, the study recommends to

- Developing training programs able to promote assessment skills among teachers in the different school levels.
- Design learning material that is students centered able to develop students independent learning skills .
- Future research may examine assessment skills at specific school subjects such as mathematics, science, etc.

References

Al-Rawashdeh, A., Mohammed, E., Al Arab, A., Alara, M. & Al-Rawashdeh, B. (2021). Advantages and Disadvantages of Using e-Learning in University Education: Analyzing Students' Perspectives. *The Electronic Journal of e-Learning, 19*(2), 107-117.

Al-Thmaly, A. (2016). The effect of homework on students' achievement and learning retain among fifth-grade students 'An experimental study'. *Journal of Faculty of Education Assiut University, 32*(1), 263-299.

Amua-Sekyi, E. (2016). Assessment, Student Learning and Classroom Practice: A Review. *Journal of Education and Practice, 7*(21), 1-6.

Arkorful, V. & Abaidoo, N. (2014). The role of e-learning, the advantages and disadvantages of its adoption in Higher Education. *International Journal of Education and Research, 2*(12), 397-410.

Azhari, F. & Ming, L. (2015). Review of e-learning Practice at the Tertiary Education level in Malaysia. *Indian Journal of Pharmaceutical Education and Research, 49*(4), 248-257.

Blikstad-Balas, M. (2016). "You get what you need": A study of students' attitudes towards using Wikipedia when doing school assignments. *Scandinavian Journal of Educational Research, 60*(6), 594-608.

Chiekem, E. (2015). Grading Practice as Valid Measures of Academic Achievement of Secondary Schools Students for National Development. *Journal of Education and Practice, 6*(26), 24-29.

Clara, D. (2021). *Rural Elementary Teacher Beliefs regarding the Effectiveness of Their Homework Practices during the Pandemic.* Unpublished PhD Dissertation, USA.

Fu, M. & Li, S. (2020). The effects of immediate and delayed corrective feedback on L2 development. *Studies in Second Language Acquisition*, 1–33. DOI: https://doi.org/10.1017/S0272263120000388.

Gul, S. (2015). *E-Learning Revolutionise Education: An Exploratory Study.* Paper presented at the E-Learning: A Boom or Curse Conference, Punjab, India, Feb 2015.

Masadeh, T. & Elfeky, A. (2017). Immediate versus delayed feedback in promoting student teachers skills for lesson plan implementation. *British Journal of Education, 5*(8), 43-58.

Nunes, G., Pirovani, B., Silva, H., Butarelo, V., Rossini, J., Costa, J., Nunes, L. & Martins, K. (2018). The importance of student monitoring in academic learning: a two-year follow-up. *BJOS, 17*, 1-7.

Olaniyi, B. (2018). Homework vs. In Class-Exercise: Means of assessment, Waste of time, or Punishment?. *International Journal of Scientific & Engineering Research Volume 9*(1), 2060-2070.

Oyinloye, O. & Imenda, S. (2019). The Impact of Assessment for Learning on Learner Performance in Life Science. *EURASIA Journal of Mathematics, Science and Technology Education, 15*(11), 1-8.

Qi, D., Rajab, A., Haladin, N., Wang, W. & Fu, X. (2020). The Effect of Immediate and Delayed Feedback on the Achievement of Chinese EFL Learners on Reading Comprehension. *European Journal of Molecular & Clinical Medicine, 7*(6), 476-491.

Shiber, A. (2013). Students' failure to perform homework. *Journal of the Faculty of Education- Wasit*, (14), 315-355.

Smith, T., Walker, D. & McKenna, C. (2022). Homework characteristics as predictors of advanced math achievement and attitude among US 12th grade students. *SN Social Sciences, 2*(1), 1-13.

Songsirisak, P. & Jitpranee, J. (2019). Impact of homework assignment on students' learning. *Journal of Education Naresuan University, 21*(2), 1-19.

Stevenson, M. (2021). *Homework and academic achievement: A meta-analysis examining impact.* Unpublished MA Thesis, University of Dayton.

Syaifuddin, M. (2018). The effect of students' perception on classroom assessment to students' attitudes. *Journal of Physics: Conference Series, 1280*, 1-8.

Ul Haq, M., Shakil, A. & Ud Din, M. (2020). Impact of Homework on the Student Academic Performance at Secondary School Level. *Global Social Sciences Review (GSSR), 5*(1), 586-595.