

# The Levels of Practicing Strategies and Tools for Alternative Assessment by Secondary School Mathematics Teachers in The Light of Distance Learning from Their Students' Point of View

A. M. Almalke

Department of Curriculum and Teaching, Faculty of Education, Jeddah University, Jeddah, Saudi Arabia

Received: 21 Feb. 2023, Revised: 22 Mar. 2023, Accepted: 24 Mar. 2023.

Published online: 1 May 2023.

**Abstract:** The study aimed at identifying the degree of practicing mathematics teachers at the secondary stage for alternative assessment strategies and tools in the light of distance learning from the point of view of their students. The study also aimed at exploring the obstacles to the application of these tools from the point of view of teachers. The descriptive survey method was used, and the study instrument consisted of two questionnaires: the first for students, which consisted of (44) items, distributed over 6 dimensions, and the second questionnaire for teachers about the obstacles to using alternative evaluation which consisted of (14) items. The results showed that mathematics teachers' use of alternative assessments came to a high degree. The homework and electronic exams strategy ranked first with a very high degree, and the performance-based assessment strategy ranked last with a moderate degree. The study also concluded that there are many obstacles to the use of alternative assessment, most notably the lack of material and moral incentives for the teacher to apply the alternative assessment, a large administrative burden on the teacher, and the time allotted for the mathematics course is not enough to apply the alternative assessment. The study recommended holding training courses for teachers in alternative assessment online and developing a comprehensive guide to educate all participants of the educational process about the importance of alternative assessment and methods of use.

**Keywords:** mathematics teachers, alternative assessment, online education, obstacles.

## 1 Introduction

Our current time is witnessing many challenges, dangers, and successive rapid developments, which in turn raise fear and panic in the hearts of individuals and societies if they are not dealt with wisely and appropriate measures are taken to avoid their dangers. Abdulrahman and Othman [1] argued that these dangers are represented in their spread, the difficulty confronting them, and the discovery and availability of remedies. The Coronavirus has invaded the entire world, which made countries take more stringent measures to protect their citizens, including students at all levels, by imposing a total or partial curfew. Therefore, it became imperative for educational institutions to replace education within their walls with distance education to avoid the spread of the Coronavirus [2].

Distance learning needs to change the means and methods of teaching and learning, relying on more effective methods of evaluation, and not relying on traditional evaluation. Student learning evaluation is an important stage of the educational process and an element of educational development that educational systems in the world aim to improve. The educational evaluation is linked to the educational process, which has several elements, and there is an urgent need to correct these elements. This is because the educational process is constantly evolving and changing [3].

The assessment and evaluation relied on memorization, and the traditional methods were dominant and favoured by teachers. However, some educators criticized them [4] and confirmed that these traditional methods are not sufficient to face the successive educational changes, especially in the light of Internet-based learning. Therefore, alternative assessment and its different methods have become the solution to meet the educational changes and the different needs of students.

The alternative educational assessment emphasizes the shift from focusing on the cognitive side to the balance between the various components of the student's personality – cognitive, physical, social, and others. It also focused on flexible curricula centred around the student and building his personality and abilities, and from separation from society and his aspirations and hopes to a view consistent with society and the interaction between the goals of education and the goals. However, this cannot be achieved in light of traditional practices of evaluation [5]. Alternative assessment depends on the diversity of evaluation methods; such as oral, auditory, written, and practical evaluation, using many methods and

\*Corresponding author e-mail: [aalmalke@uj.edu.sa](mailto:aalmalke@uj.edu.sa)

techniques; such as observation, tests, peer evaluation, educational portfolios, achievement files, etc. [6]. Mathematics specialists in many countries have called for reforming mathematics education and its curricula in line with the development of information and technology and the nature of mathematics. Therefore, the American National Council of Mathematics Teachers (NCTM) created a committee to prepare educational levels for mathematics curricula and assessment levels and stressed the importance of moving from traditional assessment in teaching mathematics to alternative assessment and the use of its various tools, including achievement files, self-evaluation and estimation rules, assessment by written tests, and assessment by concept maps [5, 7].

Several studies have confirmed the effectiveness of using alternative assessment strategies in education in general, especially mathematics education [8, 9, 10]. Teachers' use of alternative assessment strategies, and their awareness of the activities and tools included in each strategy, makes their assessment realistic and authentic and help them show the students' higher-order thinking skills [11]. Therefore, it is of great importance that mathematics teachers familiarize themselves with the alternative assessment and the application of its various strategies in the educational process, especially in the light of distance learning, which in turn is reflected in the improvement of the learning, teaching, and evaluation process. This will reflect on the educational process as a whole to keep pace with recent developments in the educational process. From this standpoint, this study aimed at determining the degree of the practice of alternative assessment strategies and tools by secondary school mathematics teachers in the light of distance learning from their students' point of view, and the obstacles to implementation.

#### The problem of the study

In light of the spread of the Coronavirus, the Ministry of Education in the Kingdom of Saudi Arabia has paid attention to distance learning and enhanced its various skills and practices, including issuing a guide for measurement and evaluation tools in e-learning. This procedure was to find standardized means to judge the level of learners' progress in acquiring the desired and intended knowledge, skills, and trends [12].

Abu Zeina [13] stated that the world is witnessing a shift in the concept of evaluation from the old concept based on tests to an alternative evaluation whose tools and strategies vary. Tests in modern trends are only a form of various forms of evaluation to measure different learning outcomes. As a result of the shortcomings in the concept of traditional assessment and its limited results, the demand began to increase from educational institutions towards the use of alternative assessment and its various tools to keep pace with knowledge and technological development and for the educational outputs to possess higher levels of thinking and problem-solving [4]. The teacher is the most important element in the educational process and has the largest and most influential role in improving educational outputs. The alternative assessment and its various tools and strategies make its assessment of the educational process more realistic and more capable of providing diverse and multiple learning opportunities for its students [11, 14].

One of the most important reasons for the inability to apply alternative assessment methods in the educational process is the teachers' lack of competencies and the necessary training to apply these methods [15]. Numerous studies have confirmed the need for teachers at different educational levels and subjects to learn about alternative assessment and its various strategies and tools to build training programs to familiarize them with the alternative assessment, its various strategies, and tools, and train them to use it [16].

From the foregoing, the problem of the study is summarized in the following main question:

What is the degree of practising alternative assessment strategies and tools by mathematics teachers at the secondary stage from their students' point of view? The following sub-questions branch out from this question:

- 1- What is the degree of practising alternative assessment strategies and tools by mathematics teachers at the secondary stage from the point of view of their students?
- 2- What are the obstacles to using alternative assessment in the light of distance learning from the point of view of mathematics teachers at the secondary stage?

#### Objectives of the study

This study aimed at:

1. Identifying the degree of practising alternative assessment strategies and tools by mathematics teachers at the secondary stage from the point of view of their students.
2. Identifying the obstacles to using alternative assessment in the light of distance learning from the point of view of mathematics teachers at the secondary stage.

#### Significance of the study

The significance of the current study stems from the importance of the topic, the alternative assessment, which affects the learning and teaching processes. It is one of the recent trends toward the style of assessment, its tools, and its methods. This study will direct attention toward the alternative assessment and the importance of using it and applying its various strategies and tools. The study is to prepare courses and training programs for mathematics teachers before and during service, and it will also direct researchers to benefit from its results in conducting more studies on alternative assessment and various aspects and other educational outcomes.

#### Limitations of the study

**Thematic limits:** The current study was limited to recognizing the degree of mathematics teachers' practice of alternative assessment strategies and tools at the secondary stage from their students' point of view and the obstacles to application.

**Human limits:** A sample of secondary school students in Jeddah Governorate, and a sample of mathematics teachers in Jeddah Governorate.

**Time limits:** The study was applied in the second semester of the academic year 2020-2021.

#### Previous studies

Arseven, et al [17] investigated the extent to which teachers use alternative assessment and evaluation strategies in mathematics in Turkey. The study included a sample of (30) teachers, where interviews were conducted to obtain their opinions about what the study aimed at. The traditional approach to evaluation is still prevalent despite the construction of constructivist mathematics curricula. The results also showed that teachers focus in their evaluation on the paper-and-pencil strategy (tests).

Bagbeer and Al-Otoum [18] explored the degree of science teachers' use of realistic evaluation strategies, their tools, and obstacles to their implementation in Sharurah schools. The descriptive analytical approach was used, with a sample of (46) male and female teachers. The results found that the use of realistic evaluation strategies was high in all strategies. The most important obstacles were insufficient time allotted to cover the content of the science course, including strategies for realistic evaluation, the lack of training programs in the field of realistic evaluation, and the increase in teaching burdens on the teacher.

Dabbous et al [19] revealed the degree of using realistic assessment by government teachers in Jericho governorate, their attitudes towards it, and obstacles to its use. The descriptive analytical approach was used, with a sample of (125) male and female teachers. The study concluded that teachers' use of realistic assessment tools has achieved a medium level, and among the most significant obstacles are the many burdens placed on the shoulders of the teacher, followed by the length of the course.

Al-Ghaith [20] identified the reality of the practice of mathematics teachers for the intermediate stage in the city of Riyadh of alternative evaluation methods in their distance education in light of the Corona pandemic. The descriptive survey method was used, with a sample of (101) teachers. The research concluded that the averages of female teachers' practice of electronic alternative assessment methods in their distance education were significant for the tool as a whole and all of the tool's axes.

Al-Dhafiri et al [21] explored the level of practice of alternative assessment methods by female faculty members in the Department of Joint Sciences at the Deanship of the Common Year in their remote education, the impact of the Corona pandemic, and also the most important obstacles to their use of alternative assessment methods. The descriptive survey method was used, with a sample of (30) faculty members at King Saud University. The study concluded that the level of practice of female faculty members for alternative assessment methods in their distance education was moderate for the tool as a whole. The study also concluded that there are obstacles that prevent their use of the alternative calendar in their distance education largely due to the tool in general.

Previous studies dealt with the degree of use of alternative assessment strategies and tools by teachers at different stages and their attitudes towards them, and the obstacles that prevent their use. This study agrees with some of these studies, but it differs from others in that it deals with the degree of use from the point of view of students in the secondary stage, which is the only study within the limits of the researcher's knowledge that dealt with this stage. This study agreed with previous studies in the approach used, which is the descriptive and analytical approach. The researcher benefited from those studies in preparing the instruments and the theoretical framework. The degree of use varied between high, such as [20, 17]. Other studies confirmed a medium level of use, such as [21, 19]. There are many obstacles, including the large burden placed on the shoulders of the teacher, followed by the length of the course, insufficient time allotted for it, and the lack of training programs for teachers on the use of alternative assessment [18, 19].

## 2 Methods

The researcher used the descriptive survey method due to its suitability to the study objectives.

### *Sampling*

The study population consisted of all mathematics teachers and secondary school students in Jeddah, Saudi Arabia, for the second semester of the academic year 2020-2021. The sample of teachers consisted of (70) mathematics teachers in secondary schools, and the student sample consisted of (170) students from secondary schools in Jeddah Governorate, Saudi Arabia.

### *Instrument of the study*

The researcher used the questionnaire as an essential instrument for collecting the required data to support the theoretical research with the applied side, to answer its questions, and to achieve its goals.

#### *First: the alternative assessment scale*

The alternative assessment scale contained (6) parts, as follows:

First: practising the performance-based evaluation strategy, consisting of (8 paragraphs).

Second: practising the self-review strategy (7 paragraphs).

Third: Practicing the strategy of assignments and electronic tests (6 paragraphs).

Fourth: Practicing the strategy of peer evaluation (8 paragraphs).

Fifth: Exercising the electronic achievement file (7 paragraphs).

Sixth: Practicing the rules of performance appraisal (8 paragraphs).

The researcher used a five-Likert scale (very little-little-medium-high-very high) to reveal the degree of the practice of alternative assessment strategies and tools by secondary school mathematics teachers from the point of view of their students.

To verify the validity of the instrument, the researcher relied on apparent validity, which is the validity of the judges. As the alternative assessment scale was presented to (10) judges from faculty members who specialized in curricula and methods of teaching mathematics. They provided valuable observations that benefited the study, enriched the tool, and helped to produce it in a good way, and thus the tools have achieved what is called apparent or logical validity.

The second method of validation was the internal consistency validity of the alternate assessment scale, which was measured by calculating the Pearson correlation coefficient between the score of each paragraph and the total score of the axis to which it belongs for an exploratory sample from outside the study sample. All ratios came significant at (0.05), which indicates a high degree of internal consistency for the alternative evaluation scale.

To check the reliability of the alternative assessment scale, the researcher used Cronbach's alpha equation for an exploratory sample. The stability values ranged between (0.768-0.888), and the overall stability coefficient for the scale was (0.870), which is a high stability measure.

#### *Second: Questionnaire on the obstacles to the use of alternative assessment in the light of distance learning.*

The questionnaire on obstacles to the use of alternative assessment in the light of distance learning from the point of view of mathematics teachers at the secondary stage consists of (14) statements. The researcher used a five-Likert scale (none - weak - medium - large - very large) to identify the obstacles.

To verify the validity of the instrument, the researcher relied on apparent validity, which is the validity of the judges. The questionnaire was presented to 10 judges, who were asked to study the tool and express their opinions on it. They provided valuable observations that benefited the study, enriched the tool, and helped to produce it well. Thus, the tools have achieved what is called virtual or logical validity.

The validity of the internal consistency was calculated by calculating the Pearson correlation coefficient between the score of each paragraph and the total score of the questionnaire to which it belongs. They were all statistically significant at the level of significance (0.05), and this indicates a high degree of validity of the internal consistency of the questionnaire.

To verify the reliability of the questionnaire, the researcher relied on the Cronbach alpha coefficient in calculating the stability. The stability coefficient in Cronbach's alpha method reached (0.888), and this value is considered high.

Data analysis

In addition to what was previously used to analyze the study instrument, such as the "Person Product-moment Correlation" coefficient, and the "Cronbach Alpha" coefficient, the following statistical methods were used:

- The mean scores for each paragraph and each dimension.
- Standard deviations to identify the variance of the paragraphs and the dimension.
- The range equation for the five-Likert scale to determine the degree of practice/approval, as in the following table:

**Table 1:** The relative weight of the degrees of practice/approval

the degrees of practice/approval	weight
none	1
Low	2
Medium	3
High	4
Very high	5

The degree of practice/agreement of the five-point Likert scale is determined, as shown in the following table:

**Table 2:** weighted average scores of practice/approvals

weighted average	Degree of practice/approval
From 1 to 1.79	none
From 1.80 to 2.59	Low
From 2.60 to 3.39	Medium
From 3.40 to 4.19	High
From 4.20 to 5.00	Very high

### 3 Results and Discussion

Results of the first question:

To answer this question, the mean scores and standard deviations were calculated for the degree of secondary school mathematics teachers' practice of alternative assessment strategies and tools from their students' point of view, and the results were as follows.

**Table 3:** The mean scores and standard deviations of the degree of secondary school mathematics teachers' practice of alternative assessment strategies and tools

NO.	Dimension	Mean score	Percentage	St. Dev	Rank	Level
1	Performance-based appraisal strategy	3.19	٪55	0.437	6	Medium
2	self-review strategy	3.54	٪64	0.417	4	High
3	Homework strategy and electronic tests	4.30	٪83	0.275	1	Very high
4	Peer review strategy	3.30	٪58	0.413	5	Medium
5	Electronic completion file	4.12	٪78	0.397	2	High
6	performance appraisal rules	3.77	٪69	0.370	3	High
Total		3.67	٪67	0.168		High

Table (3) shows that the practice of alternative assessment strategies and tools by mathematics teachers at the secondary level from their students' point of view came with a (high) response rate. The total mean score was (3.67), with a standard deviation of (.0.168)

It is also clear from the previous table that the practice of the strategy of electronic assignments and tests came in the first order with a mean score of (4.30), followed by the practice of the electronic achievement file with a mean score of (4.12) in the second order. In the third order came the practice of performance appraisal rules with a mean score of (3.77), while in the fourth order came practising the strategy of self-review, with a mean score of (3.54). In the fifth order came practising the strategy of peer evaluation, with a mean score of (3.30), and in the sixth and final order came practising the strategy of performance-based evaluation, with a mean score of (3.19).

The previous results indicate the importance of increasing the training of teachers on alternative assessment, and the importance of increasing the learning time. The results also indicate the importance that teachers should be aware of the diversity in knowledge and skills, as well as the ease of using tests and electronic assignments and correcting them automatically and quickly. In the same context, the previous results indicate a lack of time allotted for learning and the

lack of seriousness of some students in accepting the alternative assessment. Perhaps the reason is the unavailability of courses and the teacher's full briefing on the alternative assessment.

The previous results also indicate the ease of using the electronic achievement file and the awareness of mathematics teachers of its importance in the learning process of their students and the development of their attitudes. It provides an opportunity for creativity and competition among students. The good advantages that the Madrasati platform provides for use by both the student and the teacher. In the same context, the previous results indicate a lack of awareness Mathematics teachers stressed the importance of involving the student in formulating the rules for evaluating performance due to a large number of teaching loads, and perhaps the teachers' lack of awareness of the nature of alternative assessment. These results are consistent with the results of [20, 18], which resulted in a high degree of use of alternative assessment. The results differ from the results of [21, 18], which came with a degree of moderate for the use of alternative assessment, and also differed from the results of Arseven et al [17].

Second: results of the second questions

To answer this question, the researcher assigned (14) paragraphs to identify the obstacles to the use of alternative assessment in the light of distance learning from the point of view of mathematics teachers at the secondary stage, and the results were as follows.

**Table 4:** The means scores and standard deviations of obstacles to using alternative assessment

NO.	Paragraph	Mean score	Percentage	St. Dev	Level	Rank
8	The lack of material and moral incentives for the teacher to apply the alternative assessment	4.54	%89	0.502	Very high	1
14	Too much administrative burden on the teacher	4.37	%84	0.685	Very high	2
1	The time allotted for the mathematics course is not enough to apply the alternative assessment	4.33	%83	0.737	Very high	3
9	Parents' negativity in understanding their role in the alternative assessment	4.33	%83	0.717	Very high	4
6	The supervisory authorities focus on the results of the traditional evaluation and are not interested in the alternative evaluation	4.31	%83	0.733	Very high	5
4	The scarcity of courses on alternative evaluation and its use in mathematics	4.27	%82	0.779	Very high	6
11	Poor coordination between the school administration and the educational supervisor in applying the alternative assessment	4.26	%81	0.811	Very high	7
12	The negative role of the supervisor is not providing enough information to the teacher to apply the alternative assessment	4.23	%81	0.820	Very high	8
10	Increasing the teaching burden on the teacher	4.16	%79	0.810	High	9
13	The tendency of some teachers to continue applying traditional methods of evaluation	4.14	%79	1.040	High	10
5	A large number of students in the class prevents the application of the alternative assessment	4.10	%78	0.980	High	11
7	The unwillingness of the students to cooperate with the teacher in applying the alternative assessment; Because it is unfamiliar to them	3.94	%74	1.166	High	12
2	The mathematics teacher's lack of sufficient understanding of the application of the alternative assessment	2.51	%38	1.391	Low	13
3	The use of an alternative assessment may cause chaos during distance learning in mathematics	2.33	%33	1.113	Low	14
Total		3.99	%75	0.226	High	

Table (4) reveals that the obstacles to the use of alternative assessment in the light of distance learning from the point of view of mathematics teachers at the secondary stage came with a (significant) degree of response. The overall arithmetic

mean was (3.99 out of 5), which falls within the fourth category of the five-point Likert scale (3.40 to 4.19), which indicates a (large) degree of agreement.

It is also clear from the results that there is a discrepancy in the responses of the study sample to the phrase “obstacles to the use of alternative assessment” in the light of distance learning. The averages ranged between (2.33 to 4.54 out of 5), which are averages located between the second and fifth categories of the five-point Likert scale, and indicate the degree of response (weak, medium, large, and very large), respectively.

The previous results indicate that there are significant obstacles that prevent the teacher from applying the alternative assessment, including obstacles related to the teacher in the lack of adequate training, the large number of teaching loads, and the increase in the number of students. These obstacles make it difficult to follow them all, and the absence of material and moral incentives. There are obstacles related to students and their parents and their lack of desire for alternative assessment. There are also obstacles related to management and supervision, where the view is still favouring the traditional assessment. These findings are consistent with the findings of [18, 19].

## 4 Recommendation

The study recommends the following:

1. Conducting training courses for teachers in the remote alternative assessment.
2. Develop material and moral incentives and encourage teachers to apply alternative assessments.
3. Training students and parents on ways to use and participate in the alternative calendar.
4. Developing a comprehensive guide to educate all elements of the educational process about the importance of alternative assessment and methods of use.

### *Conflicts of Interest Statement*

*The authors certify that they have NO affiliations with or involvement in any organization or entity with any financial interest (such as honoraria; educational grants; participation in speakers' bureaus; membership, employment, consultancies, stock ownership, or other equity interest; and expert testimony or patent-licensing arrangements), or non-financial interest (such as personal or professional relationships, affiliations, knowledge or beliefs) in the subject matter or materials discussed in this manuscript.*

## References

- [1] Abd al-Rahman, M, and Othman, S. *A system to follow up emergency events of the Federal Ministry of Health*. [A magister message that is not published]. University of Neelain. Khartoum. Sudan. (2016).
- [2] Hassan, I. Teaching and learning mathematics remotely in light of the Corona pandemic: reality and hope. *International Journal of Research in Educational Sciences*, 3(4), 340. (2020).
- [3] Lafi, S. *Teaching Methods*, Cairo: World of Books. (2012).
- [4] Fatit, C. G. Student opinions on management of distance education applications. *Turkish online journal of Distance Education*.15.288-241. (2014).
- [5] Allam, S. *Alternative Educational Evaluation: Its Theoretical and Methodological Foundations and Field Applications*, Cairo: Dar Al-Fikr Al-Arabi. (2009).
- [6] Kelaghan, T. and Greaney v. *Using Assessment to Improve the Quality of Education*, paris: UNESCO. (2011).
- [7] National Council of Teachers of Mathematics (NCTM). *Principles and standards for school mathematics*, VA: NCTM. (2000).
- [8] Olayan, F. The reality of using alternative assessment methods by mathematics teachers in the intermediate stage from their point of view, *Journal of the College of Education, Al-Azhar University*, 164 (1), 762-813. (2015).
- [9] Al-Shehri, M. The extent to which the mathematics teacher practices metacognitive strategies while teaching the mathematical verbal problem, *Journal of Arab Studies in Education and Psychology*, 26 (1), 127-131. (2012).
- [10] Bramwell-Lalor, s., & Rainford, m. The Effects of Using Concept mapping for Improving Advanced Level Biology Students' Lower-and Higher- Order Cognitive Skills. *International journal of Science Education*.36(5), 839-864. (2014).

- [11] Al-Bashir, A. and Barham, A. Using Alternative Assessment Strategies and Tools to Evaluate Mathematics and Arabic Language Learning in Jordan, *Journal of Educational and Psychological Sciences*, 13 (1), 241-270. (2012).
- [12] General Administration of E-Learning and Distance Learning. *Guide to measurement and evaluation tools in e-learning*, Riyadh: Ministry of Education. (2020).
- [13] Abu Zina, F. *School mathematics curricula and teaching*, 4th edition, Beirut: Dar Al-Falah for publication and distribution. (2017).
- [14] Obeid, W. *Mathematics education for all children in light of the requirements of standards and culture of thinking*, 3rd Edition, Jordan: Dar Al Masirah. (2016).
- [15] Sharif, F. A proposed program to develop the skills of using alternative assessment methods among teachers of English at the intermediate stage, *Journal of Education*, 143 (4), 475. (2009).
- [16] Majeed, S. *Contemporary Developments in Educational Evaluation*, Amman: Dar Safaa for Publishing and Distribution. (2011).
- [17] Arseven, I. A. An Alternative Assessment and Evaluation Approach in Mathematics Education. Unpublished Master Thesis, Turkey: Adiyaman University. (2014).
- [18] Bagbeer, A. and Al-Otoun, A. The extent to which science teachers in Sharurah governorate use realistic assessment strategies, tools and obstacles. *Journal of Scientific Research in Education. Ain-Shams University. Women's College of Arts, Sciences and Education*. 17(3). 379- 400. (2016).
- [19] Dabbous, M., Swedan, R., and Assaf, M. The degree of use of realistic assessment by government school teachers in Jericho, their attitudes towards it, and the obstacles to its use. *International Journal of Educational and Psychological Studies*. 2(1). 86- 110. (2018).
- [20] Al-Ghaith, A. The reality of middle school mathematics teachers' practice of alternative assessment methods in distance education in light of the Corona pandemic. *Journal of Educational and Psychological Sciences*. 5(14). 84-112. (2021).
- [21] Al Dhafiri, A., Al-Sarwani, S., Al-Ghaith, A., Al-Mulla, Nora., and Al-shalhoub, S. The reality of the practice of female faculty members in the Department of Joint Sciences at the Deanship of the Common Year of alternative assessment methods in their distance education, the impact of the Corona pandemic. *Journal of the Faculty of Education, Assiut University*. 37(6). 332- 391. (2021).