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# Students attitudes towards the assessment based on the alphabets grading system

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## Abstract

The aim of this study is to investigate the attitudes of the students of Middle East University in Jordan towards alphabets scoring plus/minus system via comparative qualitative research methods. The results showed that students' attitudes were generally positive towards the letter grading system. They also showed statistically significant differences ( $\alpha = 0.05$ ) in the students' attitudes towards the letter grading system attributed to the faculty, gender, and interaction between them. In conclusion, the students' attitudes of scientific faculties towards the letter grading system were more positive than those in humanitarian faculties.

**Keywords:** Attitudes, Letter, Grading, System, Scores.

## Actitudes de los estudiantes hacia la evaluación basada en el sistema de clasificación de alfabetos

### Resumen

El objetivo de este estudio es investigar las actitudes de los estudiantes de la Universidad del Medio Oriente en Jordania hacia el

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sistema de puntuación alfabetos más / menos a través de métodos comparativos de investigación cualitativa. Los resultados mostraron que las actitudes de los estudiantes fueron generalmente positivas hacia el sistema de calificación de letras. También mostraron diferencias estadísticamente significativas ( $\alpha = 0.05$ ) en las actitudes de los estudiantes hacia el sistema de calificación de letras atribuido a la facultad, el género y la interacción entre ellos. En conclusión, las actitudes de los estudiantes de las facultades científicas hacia el sistema de clasificación de letras fueron más positivas que las de las facultades humanitarias.

**Palabras clave:** actitudes, letras, calificaciones, sistema, puntajes.

## 1. INTRODUCTION

Universities have adopted different assessment systems to assess students' scores. Jordanian universities have been particularly interested in selecting assessment systems that are compatible with the higher education systems in the world in terms of their philosophy and outputs. There are some issues about the assessment systems in universities, such as the issue of overestimated scores, the rating systems are subject to subjective matters, and lack objectivity and comprehensiveness. There is a clear discrepancy in the criteria for assessing university scores, which constitute an obstacle in giving clear and accurate view of it. In spite of this, there are limitations and weaknesses in the university scores. It remains the best predictor of subsequent scores.

The study of attitudes has received generally prominent attention in many studies, especially in education and science of the

field of psychology, since the attitudes play an important role in the behavior shown by the individual, and facilitates the attitudes of the individual methods of dealing with multiple psychological situations, which has led many researchers to give more attention for these attitudes. There is no specific definition among the specialists in this field for attitudes, but the definition of Goldon Allport is accepted by most researchers. He was defining the attitudes as a state of mental and psychological preparation organized by the person's experience and has a directional effect on the individual's response to different situations.

It may be said that the attitude is a stand taken by the individual to a particular issue, either by acceptance, rejection or neutral, as a result of his previous experience related to that issue. The attitude is a social psychological phenomenon that needs more attention and studies. This due to the importance of this phenomenon in reflects the person's perception and his strong feeling toward people and various subjects. The attitude is characterized as being acquired and relatively stable.

The attitudes can be categorized according to emotional patterns, some have a positive attitude, another has a negative attitude, and others have a neutral attitude. The purpose of study of attitudes is to attempt to interpret and predict the behavior in order to modify this behavior to be comparable with the individual's benefit. The measure of an individual's attitudes comes from the importance of the same attitudes since they are responsible for the behavior motives. Also, measuring them is a measure of those motives.

Based on the previous concept of attitudes, the individual has an infinite number of attitudes on many issues and subjects (BADR KHAN, 2014). The students' attitudes toward the grading system are one of the most important issues for which an individual can form an attitude, either positive or negative. The universities adopted different evaluation models for the assessment of students' scores, including the percentage system, the alphabet system (A, B, C, D, F), which stands for the following (4, 3, 2, 1, 0), pass and fail system, verbal system (excellent, very good, good, average, weak) and the system of mastery. The philosophy of these systems is to assess the students' scores of an absolute system or a relative one (AL-KHATIB, 1994).

The absolute system of scores is used in many educational institutions, which is placed on a scale from zero to 100. This means that all students may fail or succeed. The absolute system features of scores are represented in the level to which a student relates directly to his/ her proficiency in the subject matter, and represents a constant standard criterion for measuring the student through fixed measurement tools. There are many criticisms of the absolute system of scores, such as scores obtained by the student who does not clearly indicate his proper level compared to the level of his classmates. There is a relative system of scores where its philosophy based on the student's comparison among his standard group. There are several models of the relative scores system: the average distribution, the modified ability, and the gap model.

One of the criticisms of the relative scores system is the instability of the frame of reference because the student's scores are

influenced by the ability of his/her standard group. There are several ways to express the student's achievement according to the relative scores system, such as rank grades, percentiles, standard scores, and symbols grading (A, B, C, D) based on normal distribution. When students were given final scores in courses, the scores are arranged in descending order according to their scores. Later, they assigned the symbols which they deserve in a number of ways, including the method of distribution curve, Diersel and Nilson method (ADAS, 1976), Wood method which are based on a distinction between first-year students and last year, and Eble method which are based on the use of the five characters' scale (A, B, C, D, F).

Whatever system universities use to evaluate scores, there are a number of factors that interfere with the choice of a system without the other: the number of students in a classroom, the nature of the course material, the nature of the studying level, the educational philosophy of the university, and the purpose of the scores. Previous estimates of the scores have been subject to several criticisms: inflation scores, the lack of a clear policy and regulations at the university to estimate scores and lack of consistency. Odeh and AL-JOWDEH (2018) explained in their study that the strategic plans of the universities seek quality and excellence, which necessitates a higher accuracy of the university tests, which is reflected in the assessment of the scores obtained by the student.

Goldstein and Tilker conducted a study aimed at investigating students' attitudes toward the systems of scores with symbols (A, B, C, D, F), as well as scoring systems (honors, successful, failure). The

results showed that students preferred the system of scores by using letters (A, B, C, D, and F). The faculty members did not show any preferability. AJAWI & KHUDAIR (1989) conducted a study aimed at identifying the validity of the evaluation system followed by the University of the United Arab Emirates, and access to possible alternatives to the system of scores. The results showed that the students' estimates varied from system to another one.

ANTHONY & BOLESLAW (1993) conducted a study to investigate the effect of the hierarchical system on alphabets scores. The results showed that there was a change in the teachers' thinking towards the criteria of the alphabets scores, which reflected the different levels instead of the number of points they receive only. BANI ATTA (1998) conducted a study aimed at investigating the attitudes of Yarmouk University students toward the symbols system. The results showed negative attitudes towards the symbols system and differences in the attitudes of the students in the different faculties. The attitudes of the students at the Arts faculty were more negative than the attitudes of students of other ones. The results showed that there was a difference in the attitudes of the students according to the level of the study. The attitudes of students in the first year were less negative than those of the fourth year (SHABBIR, ABBAS, AMAN, & ALI, 2019).

In a general survey at Yarmouk University for students and faculty members, regarding the system of scores in the second semester 1997/1998. The results showed that (70%) of the students reject the marking system, meanwhile (59%) of the faculty members

believe that the system should be terminated. In addition, (82%) of students request increment in the number of levels for distribution scores. lastly, (61%) of the students believe that there is a mood for the faculty members in scoring, and (51%) of the faculty members see that there are no clear criteria for marking.

ATTIYAT, AL-DAJEEJ & AL-SALAMH (2011) examined the attitudes of the students of Al-Balqa Applied University towards the system of assessment based on symbols. The results showed negative attitudes among students towards the system of symbols. Students' attitudes did not differ according to gender, while differences are observed in students' attitudes which attributed to specialization and level of education. Wilamowsky and Epstein conducted a study aimed at demonstrating the effect of the plus/minus score system on the cumulative average for students at Seton Hall University. The results showed that in the four previous semesters in changing the scoring system, the average was stable. In the second year of changing the scoring system plus / minus, the results were unstable, as the cumulative average of students was lower than it used to be. After introducing the scoring system with the minus symbol, there were significant differences between the three groups in the cumulative rate. Changing the scoring system did not show any significant impact on the cumulative average of students who studied basic undergraduate courses.

It was observed, there was a significant decrease in the cumulative average of students who studied the university's elective courses, and the postgraduate courses during the academic year

2004/2005 when the scoring system is adopted with minus symbol. ABU DABAT (2014) study aims to identify the students' attitudes towards the evaluation system followed by the Faculty of Arts at Al-Zaytoonah University in Jordan in some academic subjects: Curriculum concepts and fundamentals, and teaching methods. The results showed that the attitudes of the students were generally positive towards the evaluation system. The results of the analysis did not show statistically significant differences in the attitudes of the students due to gender (MAHMOOD, ARSHAD, AHMED, AKHTAR, & KHAN, 2018).

The Middle East University in Jordan, as well as other local and foreign universities, has evaluated students' performance not only to determine the level of students' achievement, but also because of a number of university decisions which are based on students' assessment, such as continuing the study, academic warning, postgraduate studies, as well as the social value that society sheds to student's achievement. The Middle East University has adopted the Credit Hours System, and the University has followed the system of scoring by using the symbols with plus / minus scores. So that the final score for each subject is the total of the first exam, second exam, activities, and final exam.

## **2. METHODOLOGY**

The descriptive approach was used to describe the phenomenon studied in terms of its nature and degree. The study population is

composed of all students enrolled in a bachelor's degree in the first semester of the academic year 2018/2019. The total study population reached (3565) students according to the statistics of the University Admission and Registration Department. While the study sample consisted of (620) students, representing about (17%) of the study population and the sample was selected stratified random sample, where the study sample was divided into two stratified: scientific and humanitarian faculties. A random sample of (288) students were selected in scientific faculties (46.5%) and (332) students at humanities faculties (53.5%).

The concept of the attitude towards the score-based assessment system plus/minus was identified by precision so that it can be measured by examining the theoretical literature and previous relevant studies (ANTHONY & BOLES LAW, 1993; BANI ATTA, 1998). The researchers concluded that the attitude towards the system of assessment based on signs plus/minus, just the views of the students at the Middle East University of the elements which are related to the system of assessment scores with symbols represented by the philosophy of the system of signs and instructions at the university, and the reflections of the system of the university students, and stimulate the motivation of the learner to learn, anxiety marks, the fairness of the labeling system and the feedback from the scoring system (ABU ALLAM & AL-SARAF, 1985).

It was benefited during the construction of the scale of answers random sample consisting of (45) students and (13) members of the teaching staff in various Jordanian universities through their response

to the questionnaire of the type of open questions, to explore the views, ideas and elements related to the assessment based on the scores of symbols system plus/minus. The initial form of the attitude scale consisted of (21) items which included the system of the score with symbols and taken into account in the formulation of the items of the scale of good criteria which is published in the educational literature.

The scale of attitude was presented to a group of expert referees to determine the extent to which the items belong to the scoring system and the accuracy of the language formulation and its suitability for university students. Based on the suggestions and the observations of the referees, the researchers modified some items linguistically and kept all items of the scale (21), where all the referees have agreed unanimously. The scale was applied to a survey sample of (39) students, and the percentages of each scale were extracted; to modify the formulation of the positive items that increased the proportion of its supporters (90%), and adjust the negative items that increased the proportion of its opponents (90%).

The results showed that the percentage of each scale of the attitude was not exceeded (90%), thus keeping the total number of items of the scale (21) items; (13) positive items, and (8) negative items. The students' answers were corrected by giving each positive item the following values: Strongly agree (5 degrees), agree (4 degrees), unsure (3 degrees), oppose (2 degrees), and strongly disagree (1 degree). The previous values for each of the negative items were

reflected, the Strongly agree rating was given one degree, while the strongly disagree rating was given five degrees.

To verify the factor validity of the attitude scale, the researchers conducted a factor analysis using the Principal Components Analysis Method, with the varimax rotation of the factors. It was noted that there were (4) factors, the value of the eigenvalue of each one is more than one, and all of them (69.20%) was explained by the total variance. The variance explained by the first factor (39.81) of the total variance was more than (20%), and this indicates that the scale was unidimensionality.

The results of the exploratory factor analysis showed that there is one factor responsible for most of the students' responses to the attitude scale, this is an indication that the scale measures one characteristic, which is students' attitudes toward the scoring system with the plus/minus symbols. Determining the strength of the correlation coefficient, which is between each item of the scale with the total score, the values ranged from (0.38 - 0.72), and all values were statistically significant ( $\alpha = 0.05$ ). This confirms that the scale is internally consistent. The reliability coefficient of the attitude scale was calculated by Cronbach's Alpha, with a value of (0.84). This value is considered high and acceptable for the purposes of this study (AL-DORI, 2001; MAHMOOD, ARSHAD, AHMED, AKHTAR, & KHAN, 2018).

### 3. RESULTS AND DISCUSSIONS

As mention above the study aims to answer two questions, below discuss the answers and result in details, the first question was:

What are the attitudes of Middle East University students towards the assessment based on the signs of symbols plus/minus system? The mean and standard deviation of the scores were calculated on the attitude scale. The mean value was (68.71) with a standard deviation (10.52). The mean was compared with the neutral score (63) which calculated by multiplication of a number of items (21) by the average of the scale (3). Table (1) shows the result of the t-test.

Table 1: T-test means of the students' scores with a neutral measure.

n	Mean	Std. deviation	Neutral degree	Df	Value (t)	Sig.
620	68.71	10.52	63	619	13.51	0.00**

\*\* Statistical significance at the level of statistical significance ( $\alpha = 0.05$ ).

The results of Table (1) show that the difference between the mean of the students' scores on the attitude scale towards the scoring system with the symbols and the neutral degree is statistically significant ( $\alpha = 0.05$ ). Since the mean value of the students on the scale is greater than the neutral grade, this indicates that the students' attitudes were positive towards the scoring system plus/minus. In order

to determine the type of students' attitudes toward the scores system according to the variables of the faculty and gender, the mean and the standard deviation were calculated, and the value of the mean was compared with the neutral score (63) using t-test. Table 2: shows the results of the analysis.

Table 2: T-Test results compare the mean with the neutral grade according to the variables of the study.

variables		Nu.	Mean	Std.	Neutral degree	df	t-test	Sig.
Faculty	Scientific	288	69.70	10.91	63	287	10.42	0.00**
	Humanities	332	67.85	10.11	63	331	8.74	0.00**
gender	Males	308	68.08	10.40	63	307	8.57	0.00**
	Females	312	69.33	10.62	63	311	10.53	0.00**

\*\* Statistical significance at the level of statistical significance ( $\alpha = 0.05$ )

The results of Table (2) for the faculty's variable show that the difference between the mean of the students' scores on the attitudes scale towards the scoring system with the symbols and the neutral degree was statistically significant ( $\alpha = 0.05$ ). The mean of the attitudes scale towards the scoring system of students in the faculties (scientific and humanities) was higher than the neutral grade (63). This result indicates that the attitudes of Middle East University students in the scientific and humanities faculties were positive towards the system of scoring the symbols plus/minus. In the gender variable, it

was observed that the difference between the mean of the male and female students on the attitudes scale towards the scoring system with symbols and the neutral degree was statistically significant ( $\alpha = 0.05$ ).

It is noticed that the mean of the male and female scores on the attitudes scale is greater than the neutral score. This result indicates that the male and female university students' attitudes were positive towards the scoring system plus/minus symbols. The researchers believes that this result is attributed to several factors, including: that the Middle East University has adopted the system of symbols plus /minus according to the basis of logic and based on extensive studies on the system of assessment based on symbols, to know the features of this system, and its relevance to the philosophy and objectives of the University, which made the justification applicable and adopted instead of the percentage system convincing for university students.

It should be noted that the meetings and seminars held by the Middle East University with the students, to clarify the mechanism of adopting the philosophy of scoring system with the symbols plus/minus was sufficient, which led to a positive view towards the system of symbols. The adoption by all universities in Jordan of the system of marking with symbols is justifying this positive view by most students. As well as, the familiarity of students with the symbols system. In addition to the fairness of the application of tests by the faculty members at the university, and its consistency, objectivity and relevance to the philosophy of the system of symbols plus / minus, and the existence of prior knowledge of the university students with the

system of symbols, and the experience of faculty members of this system, which left the positive impact of university students towards it.

The result of this study is consistent with the study of Abudabat, which showed that students' attitudes were generally positive towards the evaluation system. The result of this study contradicts the results of the study of AJAWI & KHUDAIR (1989), which showed that the students' estimates differed from one system to another. A study held by Yarmouk University student's union showed that students refuse to apply the scoring system. The results of this study differ with the results of BANI ATTA's (1989), study which showed negative attitudes towards the system of symbols. As well as the study of ATTIYAT, AL-DAJEEJ & SALAMH (2011), which showed the general attitudes of students toward the system of symbols, were negative. The study of Goldstein and Tilker showed that students preferred the system of marks in letters (A, B, C, D, and E).

Are there differences at the level of statistical significance ( $\alpha = 0.05$ ) in the attitudes of Middle East University students towards the score-based assessment system plus/minus attributed to faculty (scientific/ humanitarian) or gender (male/ female) or interaction between them? The Two Way ANOVA was used. Table 3: shows the results of the analysis.

Table 3: The results of the analysis for the variables faculty, gender, and the interaction between them.

Source of variance	Sum of squares	df	Mean squares	F	Sig.
Faculty	1382.316	1	1382.316	12.97	0.00**
Gender	1135.474	1	1135.474	10.65	0.001**
Faculty X gender	1427.124	1	1427.124	13.39	0.00**
Error	65655.384	616	106.583		
Total	68507.742	619			

\*\* Statistical significance at the level of statistical significance ( $\alpha = 0.05$ ).

The results of Table (3) indicate the following:

1. There is a statistically significant difference ( $\alpha = 0.05$ ) in the attitudes of Middle East University students towards the system of estimating the scores with the symbols plus / minus attributed to the faculty. The value of (F) (12.97) at the level of significance (0.00) and this value is statistically significant ( $\alpha = 0.05$ ). This indicates that the attitudes of students towards the system of scoring with symbols vary according to the faculty, where the average of scientific faculties (69.70) is higher than the humanities Faculties (67.85). In other words, the attitudes of the students of the scientific faculties towards the system of assessment of scores with symbols are more positive than the attitudes of the students of the humanitarian faculties.

2. There is a statistically significant difference ( $\alpha = 0.05$ ) in the attitudes of Middle East University students towards the system to estimate the scores with the symbols plus / minus due to gender. The value of (F) (10.65) at the level of significance (0.001) and this value is statistically significant ( $\alpha = 0.05$ ). This means that students' attitudes toward the scoring system vary according to gender. Where the mean of female attitudes is (69.33), which is higher than males (68.08). In other words, the females' attitudes towards the scoring system are more positive than male attitudes.

3. There are statistically significant differences ( $\alpha = 0.05$ ) in the attitudes of Middle East University students towards the system of estimating signs by symbols, due to the interaction between the Faculty and gender. The value of (F) was (13.39) at the level of significance (0.001), and this value is statistically significant ( $\alpha = 0.05$ ).

#### **4. CONCLUSIONS**

The above results can be interpreted in light of the different criteria of evaluation in scientific faculties than in humanitarian faculties, despite the existence of a unified system at the university to monitor the grades and corresponding symbols, which shows the failure of some faculty members to observe the instructions and the philosophy of the system of scoring symbols. There is a scored discrepancy in the ratings of the faculty members, which is reflected in

the assessment of the scores by the symbols. The score is set for the student according to the understanding of the faculty's member of the system without complying with its instructions, in addition to the diligence of each faculty to derive special criteria for estimating its students in the light of some determinants of scores percentage.

Such as the percentage of the student's score on the first exam, the scores of homework, participation, and the final examination, that varies from one faculty to another. This is reflected in the assessment of scores by symbols, which lead to a difference in the attitudes of students of scientific faculties than humanitarian ones towards the system of assessment of symbols. It is noteworthy to mention in this context the factors that contributed to the divergence of views of students towards the system of scoring by the faculty (scientific, humanitarian), is that the seminars and meetings of faculty members at the university are not enough to discuss the philosophy of the system of scores with symbols and its instructions, and how to derive standards for all faculty's members to state estimating for students before converting them into symbols.

In addition, some faculty members differ in estimating the students in the light of some variables such as the nature of the subject and its level. Some members of the faculty are lenient in granting assessments to students, while others are stern, which in turn contributes to the difference in the views of the university students towards the system of scores by symbols. The researchers interpreted the existence of statistically significant differences in favor of females, where their attitudes are more positive than male attitudes, that the

students have sufficient knowledge about the educational system at the university and the systems of the percentage scores and their corresponding symbols, as well as the mixing of MEU female students with other ones from other universities, and listening to their conversations and discussions that are about how to estimate the scores of the symbols, and the effectiveness of the system of scores plus/minus.

The result of this study is consistent with the study of BANI ATTA (1989), which showed a difference in the attitudes of the students toward the system of scoring by symbols according to the faculty in which they study. The study of ATTIYAT, AL-DAJEEJ & AL-SALAMH (2011) revealed a difference in the students' attitudes toward the system of scores according to the specialization and the level of the study. The results of the ABU DABAT (2014) study shows that there is no statistically significant difference in student attitudes due to gender.

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