

## Assessment of the Relationship between Level of Achievement and Perceived Importance of Teaching Evaluation

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### ABSTRACT

Five hundred eight students (132 male and 376 female) enrolled in three different randomly selected faculties at a public university in Jordan during the first semester 2013/2014. They were asked to fill a survey of 20 items (4-points likert scale type) describing general attitudes and perceptions about the teaching evaluation process. Out of these twenty items, six items were related directly to students' perceptions of the importance of teaching evaluation process. This study was interested in those specific items. Analysis of the total score of perceived importance showed ( $M=16.79$ ;  $SD=3.02$ ). The distribution was slightly negatively skewed. Chi-square statistic for independency was used to examine the relationship between items' responses and level of achievement. Significant relationship was found between achievement level and two items: item 1 "teaching evaluation leads to the improvement and development of teaching", ( $\chi^2 = 15.4$ ;  $P \leq 0.00$ ). Item 12 "The administration of the university is very much interested in students' evaluations of teaching", ( $\chi^2 = 13.6$ ;  $P \leq 0.00$ ). In general, the importance of teaching evaluation perceived was not as extremely high as expected. Therefore, this is expected to affect the level of seriousness when responding to the evaluation form, which leads to lackness of validity, reliability, and confidence in their evaluations.

**Keywords:** Teaching Evaluation; Chi-square; Higher Education; Students' Evaluation; Faculty Evaluation.

### Introduction

The desire of getting a feedback is an important aspect in the performance of any employee, specially when the job involves other people instead of inanimate products. According to Sellers, 2001 students and teachers have different opinions on what is important in the range of educational feedback. Due to this variability, it is important to get feedback from all persons involved in the teaching process.

In the last thirty years of the passed century, schools started requiring faculty to get students to fill out and turn in teaching evaluation forms to the administration. Therefore, it is now almost a worldwide practice at colleges and universities for each course taught by instructional personnel to be evaluated by students.

Riggs (1975), indicated that out of 200 educational institutions, 85% were using the teaching evaluation form. Two thirds of these institutions made evaluation reports available to the administration. Another study looked in to 100 teaching program and found that 84% of them apply the teaching evaluation form. In 67% of the cases this process was obligatory (Muse, 1979). Obiekwe, 1999 mentioned that Seldon, 1984 surveyed American universities and colleges and found about 70% of institutions gather data on student evaluation of teaching.

In many domains, raters are used to evaluate performance quality on specific task. Ratings given on air crew resource management skills, for example, determine whether or not an individual is expected to be a successful pilot. In gymnastics, panel's ratings determine which participant wins the gold. In educational settings, these data are used at a large number of

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universities in part in (a) the determination of teaching excellence, (b) formative feedback to faculty about their teaching effectiveness, (c) decisions on tenure and promotion and (d) for research purposes (Obiekwe, 1999). However, in some universities like those in Jordan, data of evaluation are used mostly for the purpose of providing faculty members with a feedback on their teaching effectiveness assuming that the evaluation form is appropriate. No further follow-up nor decisions are made based on this information. Recently, the administration started to require that the last two years evaluation reports be included with the promotion application although it is not affecting the decision. Whatever the case, these examples and many others show how important ratings-based-decisions could be. Then, how serious, precise, reliable, and unbiased these ratings should be.

Generally speaking, evaluation of faculty involves collecting information about teacher cooperation, research, community services, and teaching quality. Although evaluation of all of such domains considered difficult, the evaluation of teaching excellence might be the most difficult. One reason for this difficulty is the uncertainty and disagreement about the definition and purpose. Is it for knowledge transfer or to develop a system of specific values of life and patterns of students' personalities. Examining teaching excellence purposes can be summarized in two: First, it has a summative function; that is, results can be used to support faculty development, growth, and self-improvement. Second, results can be used to make personnel decisions on tenure, reappointment, promotion, and salary increments. The importance of such uses of teaching evaluation ratings required that ratings be objective, precise, and trustworthy (alsmadi, 2005). Such requirements cannot be guaranteed unless, at least, students realize the value of the ratings they give and think of the evaluation process as an important beneficial one.

In fact, a high tuned argument over student evaluations of faculty members has appeared in the literature. In the last few years, different academic publications included essays attacking student's evaluations of faculty members performance. (Trout, 2000) argued that student evaluations of faculty are meaningless at best and pernicious at worst. However, this article is not interested in arguing this argument, but the question still legitimate, to what extent can we trust and rely on student evaluation of faculty for different decisions?

It might be acceptable to say that examining students' evaluations of teaching in the early school years is meaningless due to the lack of ability to give rational and mature judgments. But at the university level, this is an important procedure and for a large portion of universities a required one. How seriously students fill in the evaluation form might be a function of their knowledge of the evaluation uses and their belief that changes may be made as a result of their ratings and comments because they really count. In short, beside many factors affecting the process of rating, perceptions of the evaluation process importance might be an essential factor affecting reliability, validity, and the quality of ratings given by students. Therefore, this study aimed at examining the importance of evaluation process perceived by students. In particular, the following questions were addressed: What are the characteristics of the total score of perceived importance of teaching evaluation?. What is the nature of the relationship between students' perception of the importance of teaching evaluation and their achievement level?

## **Methodology**

### **Subjects**

Participants in this study were five hundred eight students (132 male and 376 female) enrolled in three different randomly selected faculties at a public university in Jordan during the first semester 2013/2014. Among participants, (193; 38%) of the participants were classified as low achiever students, (254; 50%) were classified as mid achiever students, (61; 12%) were classified as high achiever students.

### **Instrument**

A survey of 20 items describing views or attitudes and perceptions about the faculty evaluation process. Out of these twenty items, six items (1, 2, 9, 11, 12, and 20; Appendix A) were related directly to students' perceptions of the importance of the evaluation of teaching process. This study was interested in those specific items. A 4-point likert-type scale was used to determine participant's responses to the items of the survey. Uncertain choice was not included to be avoided as an escape gate. A large portion of items included in This instrument were taken from a previous survey developed by (Olayyan, 1998). Psychometric characteristics such as face and content validity were investigated by reviewing the items by four judges of different majors; two educational psychology and two educational measurement associate professors. Cronbach's alpha reliability coefficient ( $\alpha = 0.76$ ).

### **Procedures**

The research survey was distributed and filled in during the class time, following a detailed explanations of the study's objectives and significance together with emphasizing on anonymity. Responding to the survey took approximately 15 minutes. Class teachers were present at the time of collecting data, but it was made clearly that evaluation of the current teacher is not the current interest. Instead, this study is looking for student's perceptions of the entire evaluation process.

To answer the second question, participants were divided based on their average score in to three categories: high achievers; all participants who scored one standard deviation above the mean ( $n = 61$  (12%). Low achievers; all participants who scored one standard deviation below the mean ( $n = 193$  (38%). Mid-achievers; all those who scored one standard deviation around the mean ( $n = 254$  (50%). The average has a mean of 72.22 and a standard deviation of nearly 7.

### **Definitions**

Perceived importance of teaching evaluation: Is the extent to which students think that the evaluation of teaching process is considered important. This is measured by the total score of the student's score on all six items related to this issue. These item are item 1, 2, 9, 11, 12, and 20. Therefore, the total score can be any value between 6 and 24.

Achievement level: is the total average score divided into three main categories; low (one standard score below the mean), mid (one standard score around the mean), and high achievement (one standard score above the mean).

Educational level: is the number of years spent at the university (freshman, sophomore, junior, and senior).

### **Results**

Descriptive statistics were computed for each item as well as total perceived importance score. For the total score ( $M=16.79$ ;  $SD=3.02$ ). Let us remember that 4-point likert-type scale was used to determine participant's responses to the items. It means that students generally presented up-mid-point importance perception for all items. However, they did not present extremely high perception of the importance of teaching evaluation. Kolmogorov-Smirnov test of normality (KS) showed that the total score distribution is significantly deviated from normality ( $KS=0.12$ ;  $P \leq 0.00$ ). This is can be slightly noticed in figures 1 and 2.

Table (1) presents frequencies, percentages, mean, and standard deviation for each item. In this table, item 2: "teaching must be evaluated in all courses taught by the same the faculty teach" has the highest mean, ( $M=3.33$ ;  $SD=0.72$ ). 87.8% ( $N=445$ ) of respondents to this item said yes it is important to evaluate teaching in all courses. The lowest mean was scored for item 11: "Students think of the evaluation of teaching as a waste of time" ( $M=2.55$ ;  $SD= 0.98$ ). Only 53.3% ( $N=272$ ) of respondents to this item said yes it is important.

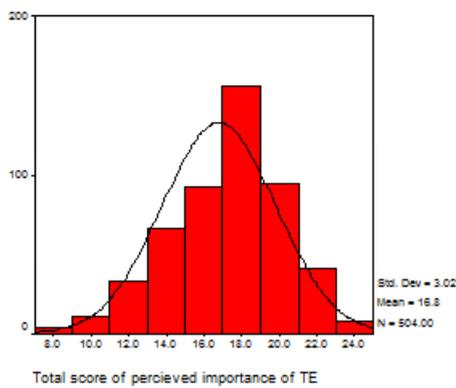


Figure 1. The histogram of importance of Teaching evaluation total score

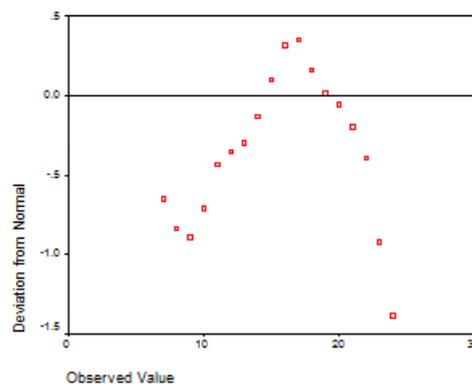


Figure 2. The Normal Q-Q plot of the importance of teaching evaluation total score

Table (1)  
Frequencies, percentages, mean, and standard deviation for each item

items		Response categories				Sum 3+4	mean	St.d
		1	2	3	4			
1	N	45	55	317	91	408	2.89	.79
	%	8.9%	10.8%	62.4%	17.9%	80.3%		
2	N	8	54	205	240	445	3.33	.72
	%	1.6%	10.6%	40.4%	47.2%	87.8%		
9	N	62	143	210	92	302	2.65	.91
	%	12.2%	28.1%	41.3%	18.1%	59.4%		
11	N	86	150	177	95	272	2.55	.98
	%	16.9%	29.5%	34.8%	18.7%	53.3%		
12	N	63	129	224	90	314	2.67	.90
	%	12.4%	25.4%	44.1%	17.7%	61.8%		
Table 1 (continued)								
items		Response categories				Sum 3+4	mean	St.d
		1	2	3	4			
20	N	84	121	177	126	303	2.67	1.0
	%	16.5%	23.8%	34.8%	24.8%	59.6%		

The chi-square statistical test of independence has showed a significant relationship between achievement level and each of item 1 “teaching evaluation leads to the improvement and development of teaching”, ( $\chi^2 = 15.4$ ;  $P \leq 0.00$ ). Item 12 “The administration of the university is very much interested in students’ evaluations of teaching”, ( $\chi^2 = 13.6$ ;  $P \leq 0.00$ ). Surprisingly, low achievers (item 1,  $M=2.9$ ) were thinking of those two items as important more than high achievers did. For item 1, the mean of low achievers, mid achievers, and high achievers was 2.9, 2.8, and 2.7 respectively. In part, low achievers may think that they do not score well because of bad teachers and teaching, so they expressed more importance to the evaluation of teaching. On the other hand, high achievers did not think about evaluation of teaching at the same level

of importance because they face no problems. In short, there is less need for evaluation as long as they score well. For item 12, the mean of low achievers, mid achievers, and high achievers was 2.6, 2.6, and 2.7 respectively. For all other items  $\chi^2$  was not significant as presented by Table (2).

**Table (2)**  
**Frequencies, percentages, mean, standard deviation, and chi-square statistical test of independence for each item with achievement level**

items		Achievement level																$\chi^2$			
		Low achievers						Mid-achievers						High achievers							
		Item responses				mean	St.d	Item responses				mean	St.d	Item responses					mean	St.d	
		1	2	3	4			1	2	3	4			1	2	3	4				
1	N	14	20	121	38	2.9	.76	28	21	158	47	2.8	.83	3	14	38	6	2.7	.69	15.4*	
	%	7.3	10.4	62.7	19.7			11	8.3	62.2	18.5			4.9	23	62.3	9.8				
2	N	5	24	80	84	3.2	.77	3	23	105	122	3.3	.69	0.0	7	20	34	3.4	.69	6.2	
	%	2.6	12.4	41.5	43.5			1.2	9.1	41.5	48.2			0.0	11.5	32.8	55.7				
9	N	21	52	79	41	2.7	.91	30	68	110	45	2.6	.90	11	23	21	6	2.3	.89	8.5	
	%	10.9	26.9	40.9	21.2			11.9	26.9	43.5	17.8			18	37.7	34.4	9.8				
11	N	40	50	69	34	2.5	1.0	37	81	84	52	2.5	.97	9	19	24	9	2.5	.92	5.7	
	%	20.7	25.9	35.8	17.6			14.6	31.9	33.1	20.5			14.8	31.1	39.3	14.8				
12	N	22	53	91	27	2.6	.86	38	60	100	56	2.6	.97	3	16	33	7	2.7	.73	13.6*	
	%	11.4	27.5	47.2	14			15	23.6	39.4	22			5.1	27.1	55.9	11.9				
20	N	32	44	70	47	2.6	1.0	44	60	86	64	2.6	1.0	8	17	21	15	2.7	.98	1.2	
	%	16.6	22.8	36.3	24.4			17.3	23.6	33.9	25.2			13.1	27.9	34.4	24.6				

\* significant at  $P \leq 0.05$ .

### Discussion

Based on the results it is possible to say that 80.3% of the respondents said that teaching evaluation leads to the improvement and development of teaching. These results are agreed with the results of (olyyan, 1998; Dwinel & Higbee, 1993). 87.8% think that teaching must be evaluated in all courses taught by the same the faculty teach. This is an indication of a theoretical importance perceived by students for teaching evaluation. In fact, this is a very important advice from students because evaluating a teacher in one course may result in a biased evaluation (i, e., underestimated or overestimated). Unfortunately, only 59.4% think of the evaluation process “as a complementary part of the teaching process”. That may due in part to idea that teaching evaluation did not affected the teaching practices. Another evidence, 53.3% of the participants think that the evaluation of teaching is a waste of time. Of course, when teaching practices are still the same over many evaluations and bad teacher are still there teaching the same way, then students will think about the evaluation as a waste of time. So it is not a surprise that 59.6% were thinking that the evaluation process should be stopped because of ineffectiveness. Finally, 61.8% think that the administration of the university is very much interested in students’ evaluations of teaching. Which means that 38.2% still think that no one care about the results of students’ evaluations of a specific teacher. This belief is expected to has very important reflections on the way students deal with the evaluation process. Such results give a dim on the necessity of educating students about the importance of teaching

evaluation and serve to open lines of communication between students and faculty members. Shortly, it looks that the administration needs to increase the level of awareness of the importance of the evaluation process among students. Theoretical lectures will be meaningless. Instead, students must feel that their evaluations and comments do count, affect decisions, and make the change. An investigation of factors that help to increase the teaching evaluation importance perception is recommended.

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## تقييم العلاقة بين مستوى التحصيل والأهمية المدركة لتقييم التدريس

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### ملخص

هدفت هذه الدراسة إلى تعرف العلاقة بين المستوى التحصيلي للطلبة والأهمية المدركة لتقييم عملية التدريس. وتكونت العينة من 508 طالبا وطالبة موزعين على ثلاث كليات في جامعة حكومية أردنية مسجلين في العام الأكاديمي 2014/2013. وقد تم تحليل استجاباتهم على ست فقرات متعلقة بأهمية تقييم التدريس من نوع ليكرت الرباعي، وقد أظهرت النتائج وجود علاقة دالة إحصائيا بين مستوى التحصيل ومستوى الأهمية المدركة لفقرتين هما: الفقرة الأولى ( $\chi^2 = 15.4; P \leq 0.00$ )، وهي أن تقييم التدريس يقود إلى تحسن وتطوير التدريس، الفقرة الأخرى ( $\chi^2 = 13.6; P \leq 0.00$ )، وهي أن ادارة الجامعة مهتمة بشكل كبير بتقييم عملية التدريس، حيث بدت الأهمية المدركة لهاتين الفقرتين لدى الطلبة ذوي مستوى التحصيل المتدني أعلى منها لدى الطلبة من مستويات تحصيل عليا. وبشكل عام لم يكن مستوى الأهمية المدركة لتقييم العملية التدريسية عاليا وهذا قد يؤثر في مستوى الجدية التي يمكن أن يتعامل فيها الطلبة مع تقييم التدريس.

الكلمات الدالة: تقييم التدريس، كاي تربيع، التعليم العالي، تقييم الطلبة، تقييم أعضاء هيئة التدريس.

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