Online Teaching Performance Evaluation System: A Tool for Quality Education

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ABSTRACT

Timely and accurate information about teaching performance is necessary for academic leaders. Unfortunately, the manual process of teaching performance evaluation makes it impossible for academic leaders to make timely decisions.

Information technology has provided new opportunities for educational institutions to be more responsive to the information needs of administrators, employees, students and other stakeholders. However, most educational institutions are only scratching the surface of technological possibilities to improve administration.

This paper describes the initiatives undertaken by Far Eastern University (FEU) in the use of information technology to implement an online teaching performance evaluation. The problems encountered and the lessons learned in using a manual teaching performance evaluation are predictably complex and wide-ranging. How these problems were resolved and what benefits were derived in using an online teaching performance evaluation is hereby presented.

Keywords: Information Technology, Online Teaching Performance Evaluation, Faculty Development Program

1. INTRODUCTION

As a private non-sectarian institution of higher learning, Far Eastern University (FEU) is committed to providing quality service to its more than 23,000 students, and approximately 1,500 academic and non-academic personnel. FEU faces the continual challenge of providing quality education in the most effective and efficient ways. The complexity of managing school operations demands well-informed academic managers. The critical need for quality and relevant information to support the decision-making process continues to pose a great challenge to many academic managers.

Realizing the importance of using information technology to support the critical and core administrative business functions, the university started the computerization projects in the late 1990s. The use of information technology has become an integral part of the university's business processes.

2. TEACHING PERFORMANCE EVALUATION

Teachers are the key human resource of any educational institution in the delivery of quality education. Teachers are often held accountable for their students' learning, within the limits of the students' abilities, time and resources available. Teaching performance evaluation is a necessary step in ensuring good instruction. Traditionally, teaching performance evaluation is used as a tool to apprise teachers on how they are doing their job. Performance is defined as a set of outcomes produced during a certain period of time, and does not refer to the traits, personal characteristics or competencies of the performer [1]. It is designed to identify teaching strengths and weaknesses.

Teacher evaluation is widely understood to be the most effective tool to improve the quality of instruction in schools [2]. Timely and accurate information is useful in virtually every stage of the decision-making

process. Problems are identified when information reveals that some aspect of performance is less than desirable. The sooner accurate performance can be placed in the hands of decision-makers, the sooner problems can be corrected, lessening the potentially undesirable or costly consequences to the organization [3].

3. TEACHING PERFORMANCE EVALUATION @ FEU

FEU believes that teaching performance evaluation is an indispensable development tool in the delivery of quality instruction among faculty members of the university.

The conduct of student faculty evaluation is observed on the 13th week of the semester immediately after the midterm examination. The teaching performance instruments were developed by the Far Eastern University with the active participation of management and officers of the Faculty Association. Faculty evaluation instruments are open to continuous improvement and refinement in response to the needs, demands and feedbacks given to the Office of the Vice President for Academic Affairs by the different stakeholders of the university.

Paper-based Teaching Performance Evaluation
Paper-based teaching performance evaluation was implemented by the Center for Teaching Excellence (CENTEX) up to 2004. It required considerable administrative effort for data collection, analysis, archiving and dissemination of results to academic managers and teachers in a timely manner. The following problems were encountered in implementing the paper-based teaching performance evaluation:

1. At least one month was needed to prepare the materials to be used for teaching performance evaluation. This included the printing, sorting, and collating of evaluation instruments, assigning faculty codes to maintain confidentiality of data, preparing the evaluation schedule, determining the evaluation venue, and identifying and orienting the proctors for faculty evaluation. During this stage, data inconsistency and redundancy were a common concern since a faculty record can be encoded several times using different faculty codes.

2. Not all students were able to evaluate their teachers. CENTEX defined the standard sampling size as 20% of the total class size. Full-time faculty members were evaluated by approximately 70 to 85 students depending on the number of sections that the faculty is handling. Part-time faculty members were evaluated by approximately 30 to 45 students only. From the Oracle database of the enrollment system, the Computer Services Department (CSD) generated the list of random samples of student evaluators at least three weeks before the administration of evaluation.

3. Many students were hesitant to participate in the paper-based teaching performance evaluation since faculty members could easily identify the students who were randomly selected and fetched from the class and brought to the evaluation venue. The students were worried that if they gave low evaluation, the faculty members would get back at them by giving them failing grades.

4. The actual evaluation period normally lasted six week. On the average, students used 45 minutes to evaluate a faculty. Three to four months were needed to encode evaluation data; another month was needed to validate and print the results of evaluation before these were finally distributed to different institutes. By this time, the semester was over and the next semester had already started, the academic managers were not able to analyze and use the results of the teaching performance evaluation in making academic decisions.

5. The paper-based system is complex, inefficient, and very costly. The cost of printing the instruments, and the results of the evaluation as well as the cost of manpower temporarily assigned to help during the administration of evaluation and processing of data is very high.

6. Data accuracy and integrity is highly questionable because of the possibility of errors while encoding the student paper evaluation to the computer for processing. The printed instrument used by the students in paper evaluation was kept for a period of at least two years to serve as proof in case a teacher asked for doubling checking of the
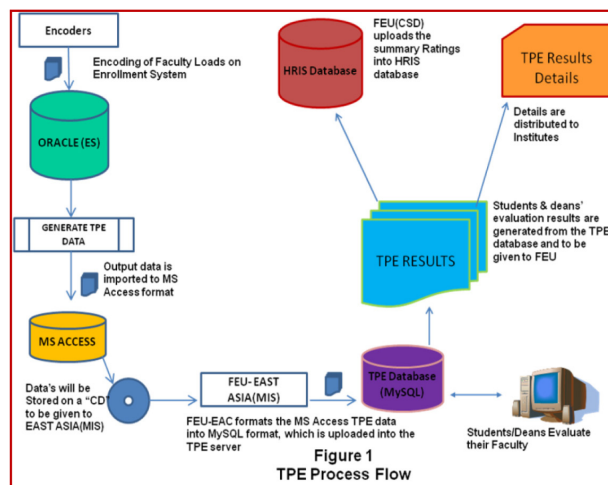
evaluation

7. The reports and information generated by the paper-based evaluation system were limited. It was of little value to academic managers since it could not be located, retrieved, distributed or shared to its intended users when needed.

8. Confidentiality of data was not maintained since there were many personnel involved in the conduct and encoding of evaluation, and generation of reports.

Online Teaching Performance Evaluation

The rapid innovation and development of Internet and network technologies provided many organizations with the ability to enhance products and services. Technology can be applied to the evaluation of faculty in several ways. Although students' on-line evaluation of teaching is basically just a more efficient way of doing business, it allows for more regular and unsolicited feedback to be encouraged and monitored by supervisors. New technologies are suggesting new ways to measure performance that had not been considered previously [4]. To address the shortcomings of paper-based evaluation, FEU initiated and commissioned FEU – East Asia College's Management Information Systems Unit to develop, maintain and implement the FEU – Teaching Performance Evaluation System (FEU–TPES) starting the first semester of Academic year 2004-2005.

FEU–TPES is a web-based application developed to facilitate online faculty evaluation via the University's intranet. This system was developed using the Active Server Pages (ASP) programming language, MySQL 5.1 database, Microsoft Internet Information Services (IIS) 6.0 web server, and access using Internet Explorer 6.0 or higher versions.

As shown in Figure 1, data used in the Teaching Performance Evaluation are extracted from the Integrated Enrollment Sytem (IES) using the TPE generator function. Data produced by the generator is in MS Access database format which is then forwarded to FEU – East Asia College for formatting and conversion into MySQL format before these are uploaded in the TPE server.

Figure 1
TPE Process Flow

Only bonafide students and deans/chairs/coordinators can access the system with the use of username assigned by FEU Computer Services department and individual password. To preserve student anonymity, teaching performance evaluation is conducted in academic laboratories during regular class time while the teacher is out of the room, and the results are shared with the teacher only after the semester has ended.

4. BENEFITS OF THE FEU–TPES

The use of an online evaluation offers a number of benefits which justify the capital expense for installing such a system:

1. Integrity of source data is preserved. Since TPE data are extracted from the Integrated Enrollment System, manual preparation of TPE data is eliminated, resulting in more accurate input data, shorter processing time, and reduced manpower requirements.

2. Printed evaluation forms are eliminated, as well as the tedious process of sorting and assigning of faculty codes.

3. TPE instruments are made an integral part of the system. New instruments can readily be developed and uploaded to the system, while existing instruments can be updated or deleted as needed using the Macromedia Dreamweaver editor.

4. Accuracy and confidentiality of evaluation data is maintained. Students and Deans / Chairs directly

encode the performance evaluation in the system; facilities to review and make necessary changes to encoded evaluation can easily be done if they so desire.

5. Both qualitative and quantitative evaluations of students are captured by the system. The system provides the students with the freedom of expressing their appreciation and recognition of good faculty members and a means to convey their sentiments and concerns about their non-performing faculty members without the restrictions of time and space.

6. Proctors that guide students in the paper-based evaluation and encoders of evaluation results will no longer be necessary, resulting to savings in manpower cost while adding to the anonymity of the student evaluators.

7. Student participation is increased. All students have a chance of evaluating all the teachers handling their enrolled courses. The result of the teacher evaluation is, therefore, based on the perception of the majority of students and not limited to the previous 20% sample class size.

8. As shown in the sample running summary report in Table 1.0, monitoring of the progress of evaluation is made possible through the generation of daily report of students who did not do evaluation as scheduled. List of teachers who are not yet evaluated by students is generated to enable the academic managers to do follow up activities and to encourage students to participate in the evaluation process.

Table 1.0
TPE Running Summary

Far Eastern University
Online Faculty Evaluation
Running Summary
2nd Semester SY 2008-2009
As of March 18, 2009 3:20 P.M.

Institute	2/9/2009 Total	2/9/2009 Accomplished	2/9/2009 %	2/10/2009 Total	2/10/2009 Accomplished	2/10/2009 %	Tot. Trans	Tot. Acc. Trans	%
ACS	4	3	75	88	61	69.32	133	92	69.17
AHSE	6483	6175	95.25	6191	5935	95.86	37690	35214	93.43
IABF	7066	6045	85.55	5926	4922	83.06	44948	37681	83.83
IABFG	0	0	0	0	0	0	193	125	64.77
IARFA	782	758	96.93	686	657	95.77	11495	10063	87.54
IAS	3	0	0	7	2	28.57	21820	18103	82.97
IASGS	0	0	0	0	0	0	64	46	71.88
IE	788	688	87.31	619	560	90.47	4241	3584	84.51
IE-ED	17	14	82.35	8	7	87.5	95	64	67.37
IECTE	0	0	0	0	0	0	27	21	77.78
IEGS	0	0	0	10	9	90	90	62	68.89
IL	0	0	0	0	0	0	3033	2596	85.59
IN	6976	5240	75.11	4705	3838	81.57	90882	78338	86.2
INGS	0	0	0	0	0	0	125	79	63.2
TOTAL	22119	18923	85.55	18240	15991	87.67	214836	186068	86.61

9. Timely and accurate reports are generated to enable academic managers to make immediate, educated decisions and intervention as needed. Results of students' teaching performance evaluation are released to academic managers before the semester is over.

10. TPE reports are given to academic managers in digital media. Specific and detailed reports can easily be retrieved, thus eliminating bulky printed reports, providing saving storage space and printing cost. TPE raw data and summary of reports are stored in a dedicated server located in a secured data center which can be accessed by authorized personnel only.

5. ADMINISTRATIVE USES OF TEACHING PERFORMANCE EVALUATION

FEU has successfully implemented a web-based teaching performance evaluation system that has overcome many of the limitations of the paper-based system system. The timely release of TPE results and the generation of reports empowers the academic managers to:

1. **Perform in-depth analyses of teaching performance evaluation reports.** Using the qualitative and quantitative evaluation results, academic managers can focus on studying the performance of individual teachers to identify their strengths, potentials, and weaknesses. The overall performance of the teachers in each department can be compared with the university wide teacher performance evaluation results to identify who among the university's thousands of teachers are the good performers and who are the poor performers. By performing item and cluster analysis of the TPE result, academic managers can plan for a more focused teacher development program to reinforce the strengths of teachers and recommend courses and conferences that can help address the perceived weaknesses.

Table 2.0
Items and Cluster Analysis Report

Coll./Dept	Range	Preparation			Learning Environment						Evaluation			
FEU TPE 2nd Semester SY 2008-2009														
STUDENTS EVALUATION					Question Items									
		1	2	Cluster Total	3	4	5	6	7	Cluster Total	8	9	10	Cluster Total
MASS COMM	1 - 1.49													
	1.5 - 1.99													
	2 - 2.49													
	2.5 - 2.99													
	3 - 3.49	1	1	1			1	1	1	1	1	1	1	1
	3.5 - 3.99	1	1	1	1	2				1	2	1	1	1
	4 - 4.49	14	12	13	7	4	13	12	14	10	11	13	11	12
	4.5 - 5	16	18	17	24	26	18	19	16	22	18	17	19	18
	Sub - Total	32	32	32	32	32	32	32	32	32	32	32	32	32

2. **Provide feedback to teachers and students.** Feedback is a critical requirement of an effective performance evaluation. Teachers must have a way of knowing whether their way of teaching is getting better or worse, what are their strengths and what are the areas that need improvements. At FEU, detailed results of individual teachers are given in read only Adobe pdf file. The feedbacks reinforce the positive, satisfactory results and inspire and encourage those with poor performance to do better, to improve on their teaching methodologies and practices in areas with low results. On the other hand, conferences with the students enable the academic managers to clarify or validate the evaluation given to teachers; students are assured that their concerns expressed thru evaluation are being considered and acted upon by the academic managers. This also inspires students to continue participating in future teaching performance activities.

3. **Provide mentoring and coaching.** As part of the effort to address the weaknesses of teachers that are revealed in the teaching performance evaluation, academic managers provide poor performers with an experienced, productive mentor to guide and coach them to achieve instructional goals. This intervention is intended to help poor performing teachers to broaden their pedagogical skills and improve their ability to deliver quality instruction.

4. **Assign the right teaching loads**. The TPE report provides information on what courses the teachers are good in teaching and in what courses they are getting low evaluation. Academic mangers use these data in giving the right teaching load to teachers. As indicated in the Collective Bargaining Agreement (CBA), teaching performance evaluation result is one of the criteria in the distribution of teaching loads. A poor performer is given reduced load.

5. **Monitor the teaching performance.** Every semester, results of the teaching performance evaluation are uploaded to the Human Resource Information System. Sample TPE report generated from HRIS database is shown in Figure 2.0. Academic managers monitor the trends of the historical teaching performance evaluation of faculty members for several semesters and use it as basis in recommending the tenureship of performing faculty members or non-renewal/dismissal of those with consistent low teaching performance evaluation.

Figure 2.0
Sample TPE Report from HRIS

6. **Allocate budget for training and faculty development programs.** Knowing the university-wide summary of teaching performance evaluation, school administrators can allocate budget, provide resources, prioritize training and development of nonperforming faculty members. New classroom strategies and instructional materials are being developed to help teachers provide quality instruction.

7. **Give recognition and monetary rewards.** Deserving teachers that meet the criteria for teaching excellence award are given monetary reward every semester, and a certificate of recognition is awarded every Foundation Day to teachers who receive consecutive teaching excellence award.

8. **Award points for faculty ranking and promotion**. TPE results are also used in faculty ranking and promotion process, thus inspiring teachers to excel in their teaching.

Table 3.0
List of Contenders for Teaching Excellence Award

Far Eastern University
Center for Testing and Evaluation

Online Faculty Evaluation Results (Alphabetical)
Contenders List UNIVERSITY WIDE
1st Semester, SY 2008-2009
N = 574

#	LastName	FirstName	MiddleName	College/Dept	Preparation Item Means		CLUST ER	Learning Environment Item Means					CLUS TER	Monitoring and Evaluation Item Means			CLUST ER	SE
					1	2	MEAN	3	4	5	6	7	MEAN	8	9	10	MEAN	Mean
1	ABDON	MIEL	ORQUIZA	HUM-SOCSCI	4.3	4.5	4.38	4.7	4.5	4.5	4.2	4.2	4.42	4.4	4.3	4.1	4.28	4.37
2	ABELARDO	LUZVIMINDA	ELIMEN	IE	4.6	4.5	4.66	4.7	4.6	4.7	4.6	4.5	4.71	4.6	4.6	4.6	4.71	4.7
3	ABELLA	MA CORAZON	SABIDORIO	IABF	4.7	4.6	4.63	4.8	4.7	4.8	4.7	4.6	4.69	4.7	4.8	4.6	4.7	4.68
4	ACLA	MA. LUZVIMINDA	ARCILLAS	IN	4.6	4.6	4.63	4.7	4.7	4.7	4.7	4.7	4.67	4.6	4.6	4.5	4.61	4.64
5	ACOMULAR	MELQUIADES JR.	ADVENTO	HUM-SOCSCI	4.9	4.8	4.82	5	4.8	4.9	4.9	4.8	4.87	4.9	4.8	4.7	4.83	4.85
6	ACOMULAR	MICHELLE	SUAREZ	HUM-SOCSCI	4.8	4.7	4.72	4.9	4.9	4.7	4.9	4.7	4.81	4.8	4.7	4.5	4.67	4.75
7	ACOSTA	FERESITA	SALVADOR	IN	4.4	4.4	4.43	4.3	4.3	4.5	4.5	4.6	4.46	4.4	4.4	4.4	4.44	4.45
8	ACOSTA	MARIZON ISABEL	REGUDO	IN	4.4	4.4	4.49	4.5	4.5	4.4	4.4	4.4	4.51	4.4	4.3	4.3	4.45	4.48
9	ADDUN	MIRIAM	SAQUIDO	LANG - LIT	4.3	4.1	4.18	4.3	4.5	4.1	4.4	4.4	4.32	4.2	4.5	4.1	4.26	4.28
10	ADVINCULA	HELEN	DY	IABF	4.8	4.8	4.81	4.9	4.7	4.8	4.7	4.7	4.77	4.8	4.8	4.6	4.75	4.77
11	AFUNDAR	CHRISTIAN LEMUEL	CHAVEZ	HUM-SOCSCI	4.6	4.4	4.52	4.8	4.4	4.5	4.6	4.5	4.57	4.7	4.5	4.3	4.47	4.53
12	AGAMATA	FRANKLIN	TIANGSING	IABF	4.9	4.8	4.83	5	5	4.9	4.9	5	4.94	4.9	5	4.9	4.9	4.91

6. ISSUES AND CONCERNS

The use of an online evaluation system however, presents a number of unavoidable issues and concerns as well:

1. Because the computer resources of an institution are often used for other purposes aside from the evaluation (i.e., Internet browsing, online enrollment, training, online instruction), the online evaluation requires strict protocol which must be observed within a specific period for all evaluators, both students and supervisors. This implies some scheduling and prioritization issues.
2. The online evaluation data are extracted from the enrollment system of the institution. Any inaccuracy in the input data inevitably affects the accuracy of the data that will be used for teaching performance evaluation purposes. When problems arise, manual intervention has to be made, which is time-consuming and inconvenient.
3. Maintaining the integrity of the evaluation requires that the process indeed accomplishes what it has set out to do: to reflect the students' objective evaluation of their faculty in terms of specific skills, attitudes, and practices. Objectivity may be compromised if other interests such as desire to elicit high grades or to get back at a faculty are allowed to stand in the way of a fair evaluation,

although this is true in an online or a paper-based evaluation.

7. CONCLUSIONS

School administrators need to take the lead in the use of information technology in their respective colleges and universities, specifically in building a technology-enhanced school environment and establishing information and communication technology in school operations and management. The successful deployment of a web-based Teaching Performance Evaluation System demonstrates that there are a lot of opportunities where information technologies can be applied to provide administrators with competitive tools in the decision-making process, in the delivery of basic services, and in the design of programs and development plans of action to address student and faculty needs.

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