Scientific Research

On the Contribution of Student Experience Survey Regarding Quality Management in Higher Education: An Institutional Study in Saudi Arabia

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ABSTRACT

We appraise comparatively and analytical data under Student Experience Survey (SES) to discuss the possible generalizability of related College level differentials in Saudi Arabia. For this, data collected from students of two academic programs namely Bachelor of Dental Surgery, College of Dentistry; and B.Sc. Nursing, College of Nursing, University of Dammam, Dammam, Saudi Arabia, were considered. These data relate to experience of students halfway of respective academic program. The percentage of participation in SES by students was 100% and 94% respectively. Students of neither the programs reported high quality perception about any of the 20 items considered under SES. With a target of satisfaction by at least 50% students, students from College of Nursing expressed better satisfaction than those from the College of Dentistry. Same is true in case of aiming to achieve satisfaction by at least 75% students. However, to gain satisfaction by at least 80% students, each of the 20 items in both colleges need focus of college as well as university administrators towards required improvements. In summary, suitable to its varying environment, each program/college in a university requires specific improvement planning.

1. Introduction

The assessment of educational quality under an academic program, through students' satisfaction, is one of the important aspects regarding quality management in higher education. Further, the global acceptance of observations from students' evaluation surveys regarding improvements in higher education, is a well known phenomenon. Hence, there is much literature and ongoing research on the topic [1]. Although some key issues have already been addressed, many still require attention. Writing about existing gaps in our collective knowledge, and, making suggestions for further research, Gravestock and Gregor-Greenleaf identified two issues of major concern: namely "understanding evaluation's users" and "educating evaluation's users" [1].

The interpretation of evaluation results for users is, basically, bipolar: institutional and unit-specific. It addresses the needs of disparate users, ranging from policy makers and administrators, through faculty and staff members to students. This divergence of users' needs

also must be studied [2].

Focused observational research on the decision making process is helpful for clearer understanding of the use of evaluation results [3]. Recently, a number of limitations of students' surveys have been reported [1,4]. In spite of that, they continue to play a critical role in the development of academic colleges, their programs and universities.

There is a healthy competition among institutions of higher education for quality education. Hence, as a continuing process, there is need of related developments and their sustainability. For this, keeping in mind micro and macro level requirements, institutions have to rely on students' ratings on different components of their core functions, including courses, teaching skills and academic programs, as well as colleges and universities as a whole [5-18]. If clarity is lacking in reporting, sometimes, it becomes difficult to find out which aspect of the evaluation process has been covered [18].

The University of Dammam is currently performing

several evaluations by students as required for academic accreditation by the National Commission for Academic Accreditation & Assessment (NCAAA). Of these, two deal with program evaluations- viz.: Student Experience Survey (SES) and Program Evaluation Survey (PES).

SES denotes the experience of students halfway through a given academic program, and, PES their overall experience at the end. The nomenclature for PES varies from one institution or country to another [4]. Thus, it is called Course Experience Questionnaire (CEQ) in Australia, and, National Student Survey (NSS) in the UK. A literature review showed that neither term-SES nor PES -- is in common usage. In spite of our best effort, we failed to find raw data in the public domain, or, scientific articles in which they were mentioned.

The present article deals with students' overall experiences about academic programs. It is written from the perspective of both an administrator and a researcher. It describes our institutional practice, using two sets of SES data from of our colleges. It discusses administrative use of the measured SES results to plan for improvement of academic programs. As an added merit [10], it is expected that the observations reported here may help those undertaking pertinent corrective measures. They can find also application in quality management in other institutions of tertiary education.

2. Materials and Methods

2.1. Data

I have considered SES data from two academic programs of University of Dammam, Dammam, Saudi Arabia. One was from students in the 7th semester of a 12-semester program: Bachelor of Dental Surgery, 2009-10. The other was from students in the 5th semester of an 8-semester program: B.Sc. Nursing, 2009-10. The coverage achieved for respondents was 20/20 and 83/88 (94%) respectively. This observed coverage was more than two-thirds of the class, ensuring representativeness of student evaluation data [19].

2.2. Analytical methods

The SES questionnaire has 20 items (Appendix 1). As a "Likert type item", each item was in five points [1], indicating the degree of agreement with a statement in ascending order: 1 = Strongly Disagree; 2 = Disagree; 3 = True Sometimes; 4 = Agree; 5 = Strongly Agree.

A Likert type item is on an ordinal scale. Concerning item by item analysis, we have already communicated fully on the evaluation of such analyses [20]. Thus, I used the measure adopted by NCAAA, and, three other measures which are more appropriate and offer prob-

lem-solving potential [21]. To facilitate reference, I briefly re-iterate here the four measures used [20,22].

The arithmetic mean for an item measures the core image of the distribution of agreement scores that are collected on an ordinal scale. Also, since related distributions are often skewed, the mean cannot be appropriate. Two of the other three measures of location used here- median and first quartile - are preferred to the mean in such circumstances. These measures for an item imply that at least 50% and 75% of respondents students respectively have assigned that score or higher for the corresponding item.

A third appropriate measure used here is cumulative % of students with score 4 or 5. We have argued that this measure has at least four attributes [20,22]. It is straight forward, easy to understand and to use by the colleges and university level administrators. The clues obtained are expected to be more meaningfully translated into action towards further improvement in those programs.

The performance grading criteria for items under the four measures used are listed below:

Performance Grading	Criteria			
	Mean	Median	First Quartile	Cumulative %
High Quality	3.6 & above	4 & 5	4 & 5	80 & above
Acceptable	2.6-3.6	3	3	60-80
Improvement Required	Less than 2.6	1 & 2	1 & 2	Less than 60

Pooled analysis

This university is at the formative stage of academic accreditation by NCAAA. As such, each of the 20 items related to each program is considered equally important. The diagram shows pooled results at program level, the distribution of total items in relation to the levels of performance considered as mean, median, first quartile and cumulative %.

3. Results

The item by item analytical results of SES for the colleges of dentistry and nursing are listed in table1. Pooled results at program level are depicted in **Figure 1**. The related observations are described in successive sections.

3.1. College of Dentistry

The students in this college, regardless of grading criterion used did not report "high quality" perception in any of the 20 items (**Table 1**). When mean grading criterion alone was considered, "acceptable" rating was observed

Table 1. Results of students experience survey.

	Students Experience Survey of							
Items	College of Dentistry				College of Nursing			
	Mean	Median	First Quartile	Cum. %	Mean	Median	First Quartile	Cum. %
1	2.6	3	2	5.0	3.2	3	3	41.0
2	2.7	3	2	25.0	3.1	3	3	35.4
3	2.1	2	2	0.0	3.2	3	3	43.4
4	2.4	3	2	5.3	3.2	3	3	38.6
5	3.4	3	3	45.0	2.9	3	2	31.3
6	2.2	2	2	0.0	3.1	3	3	31.3
7	2.5	3	1	25.0	3.0	3	2	27.7
8	1.9	2	1	10.0	2.9	3	2	27.7
9	1.7	1	1	0.0	2.9	3	2	36.1
10	1.7	2	1	0.0	2.5	3	1	24.1
11	2.7	3	2	16.7	3.3	3	3	40.2
12	2.6	3	2	15.0	3.2	3	3	36.1
13	2.1	2	2	0.0	3.0	3	3	25.3
14	2.5	3	2	10.0	3.2	3	3	32.5
15	3.2	3	3	30.0	3.2	3	3	41.0
16	3.0	3	3	20.0	3.2	3	3	42.2
17	2.6	3	2	5.0	3.3	3	3	41.0
18	2.9	3	2	25.0	3.4	3	3	49.4
19	3.2	3	3	40.0	3.3	3	3	48.2
20	2.1	2	1	0.0	3.3	3	3	45.7

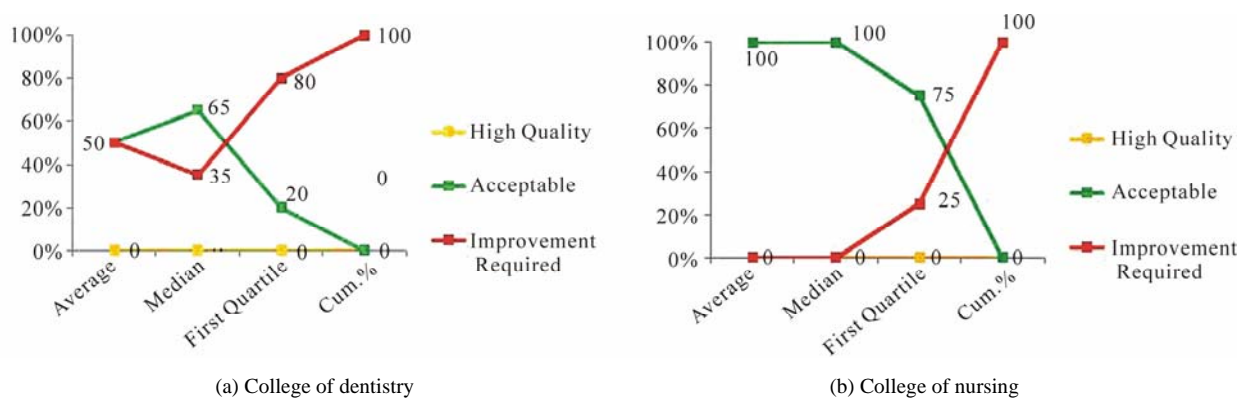(a) College of dentistry   (b) College of nursing

Figure1. Pooled SES results.

in 10/20 items. They were availability of pre-enrollment information about the university and the college; the orientation program for new students; classroom quality; facilities for religious observances; progressive involve-

ment of faculty; quality of study programs regarding group activities, confidence building, communication skills, further learning and future career.

Students' rating of "improvement required" emerged

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for the remaining 10/20 items. They were students' counseling services; course enrollments procedure; computing; the library (staff, available materials and convenient opening hours); facilities for extracurricular activities; fair attitude of faculty; encouraging investigative and expressive ability of courses and assignments; and, overall satisfaction in the program.

To look for more objectivity in observations and their implications, as pointed out earlier, we explored the median grading criterion. Although it may not be true every time, apart from 3/20 items, the earlier observations remain unchanged. The students' rating now changed from "improvement required" to "acceptable" in respect to course enrollments; library staff; encouraging investigative and expressive ability of courses and assignments. Thus, now 65% of items recorded acceptable rating (**Figure 1(a)**). This may be attributed to possible underestimation by the 'mean' and consequently related satisfaction grading.

When we raised the bar to capture at least 75% of students being satisfied, this lowered the proportion of satisfaction level for most of the items. There were 4/13 exceptions; they recorded acceptable response. These four items were attractiveness and comfort of classrooms; increase in investigative confidence; communicating findings; and learning to work in group activities.

A higher still movement of students' satisfaction from 75% to 80%, pushed down the satisfaction level in all the four "acceptable" items to "improvement required". To achieve this enhanced target, all 20 items need further improvement. This demands focus by the college and university administrators.

3.2. College of Nursing

Among students of this college also, regardless of the criterion employed to grade students' perception, high quality satisfaction did not emerge for any of the 20 items (**Table 1**). When "mean" grading was used, the students rated all 20 items as "acceptable". Their rating remained the same, by coincidence, with median grading criterion (**Figure 1(b)**).

A higher movement of students' satisfaction from 50% to 75%, altered their rating from "acceptable" to "improvement required" for 5/20 items. The five are attracttiveness and comfort of classrooms; the library (staff, available materials and opening hours); and facilities for extracurricular activities.

Again, a higher movement of the students' satisfaction from 75% to 80%, changed their rating for the remaining 16/20 items also from "acceptable" to "improvement required". Again, to achieve this enhanced target in this

college also, all 20 items need further improvement and require focus by the college and university administrators.

4. Summary and Conclusions

The knowledge about the learning environment of both colleges and university might be helpful in making meaningful inferences from SES results as well as their implications. It is known that, environmental comparative observations have added merit in providing insight and useful clues for policy planners. Hence, they are briefly described below.

4.1. Environments of Colleges

The College of Nursing was established on 8 June 2002. It is for exclusively female students. Its academic program, "BSc Nursing", began from 2002. Developmental activities progressed at a comparatively fast pace. They were completed in optimum time.

Six months after the Nursing College, the Dentistry College was also established on 14 December 2002. In direct contrast with the Nursing College, it admits only male students. Its academic program, "Bachelor of Dental Surgery", also began in the year 2002. The general perception has been that developmental tasks in this college move at a comparatively slower pace.

In summary, these two colleges sub-serve two different learning environments. In these circumstances, comparison of their SES results is best avoided. But, while doing so, this article aimed to highlight the need of program as well as college specific improvement plan.

4.2. Environmental Comparison

In both the colleges (dentistry as well as nursing), regardless of grading criterion (**Table 1**), students did not report high quality perception for any of the 20 items in SES questionnaire. To my surprise, in none of these two colleges, until now even 50% students do not agree to any of these items. With a target of 50% satisfaction among the students, in the college of dentistry, only 65% (13/20) of the items could emerge with "acceptable" perception. On the other hand, in the college nursing, all the items (100%) hold this related perception. With an increase in target from 50% to 75% satisfaction among the students, in college of dentistry, only 20% (4/20) items retained "acceptable" perception where as remaining went down to "improvement required". On the other hand, in the college of nursing, 75% (15/20) of the items still retained the perception "acceptable". With a further increase in target from 75% to 80% satisfaction among the related students, all the items (100%) in both the col-

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leges go down to the perception level "improvement required".

Both the colleges need quality improvements in all the areas, namely, access to pre-enrollment information, orientation week for new students, student administration & support services, facilities and equipments, learning resources, and learning & teaching. However, keeping in view of the comparative observations described earlier, desired pace of improvements in college of dentistry has to be faster than that in college of nursing. It is more so, especially when target is to achieve high quality perception of students for each item under every program of a university. We may thus easily conclude that each college in a university needs environmental specific developmental activities regarding quality in higher education.

4.3. Limitations

The coverage of this study was limited to only two colleges of this university representing two different environments. Further, number of students in college of dentistry is almost one fourth of those in college of nursing. These points warrant to take precaution while generalizing the results.

4.4. Future Research

Each college has its own story about establishment, program, starting first academic session, course curriculum, teaching methods and other aspects. Accordingly each college constitutes a different environment. This suggests the need of carrying out evaluation studies in each college. It becomes more essential when the colleges are in early phase of developments. The clues from feedback of students help in a long way regarding development of high quality higher education and its sustainability.

5. Acknowledgements

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Appendix 1: Students experience survey questionnaire

Items

1) It was easy to find information about UoD and its Colleges before I enrolled here for the first time.

2) When I first started at UoD, the orientation week for new students was helpful for me.

3) There is sufficient opportunity at UoD, to get advice on my studies and my future career.

4) Procedures for enrolling in courses are simple and efficient.

5) Classrooms (including lecture rooms, laboratories etc.) are attractive and comfortable.

6) Student computing facilities are sufficient for my needs.

7) The library staff is helpful to me when I need assistance.

8) I am satisfied with the quality and extent of materials available for me in the library.

9) The library is open at convenient times.

10) Adequate facilities are available for extracurricular activities (including sporting and recreational activi-

ties).

11) Adequate facilities are available at UoD for religious observances.

12) Most of the faculty with whom I work at UoD are really interested in my progress.

13) Faculty at UoD are fair in their treatment of students.

14) My courses and assignments encourage me to investigate new ideas and express my own opinions.

15) As a result of my studies my confidence in my ability to investigate and solve new and unusual problems is increasing.

16) My ability to effectively communicate the findings of such investigations is improving as a result of my studies.

17) My program of studies is stimulating my interest in further learning.

18) The knowledge and skills I am learning will be valuable for my future career.

19) I am learning to work effectively in group activities.

20) Overall, I am enjoying my life as a student at UoD.