

External Quality Assessment: An Application of Educational Statistics to Improve Higher Education

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1. Introduction

Among the evaluation models which are applied to judge the quality of educational systems, accreditation model is the most popular. It is composed of three parts: a) self-evaluation process (SEP), which is also called internal quality assurance (IQA), b) external quality assessment (EQA), c) ranking. Self-evaluation is a process through which an institution (or academic unit) prepares a detailed review of its goals, mission, strategies and activities by its faculty members for the purpose of quality maintenance and improvement. In some higher education systems, such as the United States, self-evaluation is conducted for review by an outside review panel. In such a case the SEP is primarily conducted to prepare the ground for peer review (EQA) and ranking of institutions. However, recent experiences in conducting external quality assessment indicate that the purpose of the EQA is not necessarily ranking, but rather “quality improvement and accountability of higher education” (Vroeijenstijn, 1995). When the results of the EQA are used for comparing higher education institutions (HEI), it leads to ranking.

In the process of self-evaluation major variables related to the inputs, process, outputs and outcomes of the HEI are measured and judgement is made about the quality of each factor under evaluation (Bazargan, 2000). In doing so, purpose of the HEI is being considered as reference point for judgement. In conducting the EQA, there is need for benchmarking and pre-established standards prior to the judgement process. Based on the above, this paper elaborates on a case study on conducting the EQA in higher medical education in Iran, as an application of educational statistics to improve the quality and relevance of university systems.

2. External Quality Assessment in Higher Education: the case of Iran

External quality assessment is a process through which a peer group reviews the quality of the HEI (program / department / institution). In doing so, a self-evaluation report should be prepared and submitted to the peer group. This report is examined and site visits to the HEI is carried out by a peer group. The peer review is based on a set of **requirements** or pre-established standards which aims at quality judgement for: (a) improvement, and (b) accreditation. As mentioned, the prerequisite to the EQA is self-evaluation. In other words, the SEP is a cornerstone for quality improvement in higher education. Furthermore, the culture of evaluation should be prevalent in the socio-cultural context of the HEI.

Based on the above, a self-evaluation process was designed and implemented at the medical university system in Iran in 1996. Statistical characteristics of the SEP, as the basis of the EQA, and its impact on the quality improvement is analysed here.

3. Statistical Characteristics of the SEP

Self-evaluation process at the medical university systems in Iran is composed of more than 30 criteria and related indicators (Bazargan, 2000). The categories of variables under evaluation, at departmental level, include:

management; professionals(size, structure, teaching load, productivity), students(size, background, achievement, attitude); teaching-learning processes(strategies, materials and facilities, evaluation, feedback);graduates(size, employment status, opinion about their knowledge, attitude, and skills, employers' opinion ,scientific productivity).

To collect data about these variables, five statistical populations are surveyed in the SEP as follows: departmental chairpersons/program directors; faculty members ;students ;graduates; employers. The first population is surveyed by complete enumeration using an interview technique. The other populations are surveyed by sampling, using a set of questionnaires as measurement instruments. Data processing and analysis are carried out to facilitate a comparison between “what is” and “what could be”. Then, judgement about quality of the factors under evaluation is made on a scale with three categories: satisfactory(good); rather satisfactory(moderate); unsatisfactory(poor). Based on the results of the SEP in medical universities, a policy has been made to introduce self-evaluation in the other fields of higher education in Iran.

In establishing an EQA system in Iran, there has been efforts to toward benchmarking and standard setting. In benchmarking description of a minimum level of what is considered acceptable is provided. In other words, in the process of standard setting ,”what should be” is clarified for quality judgement. In doing so, steps have been taken to specify the following :(a) knowledge, attitude, and skills that graduates should demonstrate;(b) step-wise process of peer review; (c) judgement process.

4. Conclusions

Educational statistics may be defined as the application of statistical methods to improve educational systems. **Pedagometrics** is also coined to cover this field(Bazargan,1997). With regard to rapid changes which are affecting universities, educational statistics could help to assess “what is”, what could be”, and “what should be” and assist **continuous quality improvement**.

Resume

Statistique en education est l' application des methods statistique pour ameliorer les systemes educatifs. Vu le changement rapid affectant les universites, statistique en education peut assister l' evaluation de “ce qui est”, “ce qui pourras etre”, et ainsi apporter l' aide a l' amelioration continue de la qualite en enseignment superieur.

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