Peer Review of Teaching in Higher Education – a Case Study of a Hungarian University

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Abstract

Higher education is an especially complex service hence management of its quality is also a diverse task. Within higher education there are a variety of stakeholders – including i.e. students, government, accreditation committees, auditors, employers, and teaching and non-teaching staff – and each has their own view on what quality in tertiary education means. Therefore, higher education institutions are motivated to implement quality management systems which can capture more aspects of quality of their educational services, the traditional student evaluations are not sufficient any more. In this paper, the peer review of teaching program at Budapest University of Technology and Economics Faculty of Economic and Social Sciences is presented, and its methodology, results and experience are also discussed. The program reviews about 20 courses annually and involves almost 100 lecturers either taking part as peer tutor or tutee. The peer review observations, assessments and appraisals are made by peer teachers including colleagues with quality management, pedagogy or psychology background as well. The peer review program is completed by both student evaluations and lecturer self-evaluations, so these three aspects together provide a balanced feedback both to individuals on their teaching strengths and weaknesses and to the academic staff. In case of lecturers the aim is to improve their teaching practices. Results are utilized to facilitate the staff creating better internal teaching rules and identifying best practices. The peer review program is based on questionnaires covering the whole teaching process. The novelty of the presented approach is that it evaluates not only the classroom performance but its focus also includes course outlines briefs, teaching materials, course requirements, and processes of student evaluations. An important conclusion is that most observed and identified mistakes and failures are not connected with the classroom teaching activities but with other supplementary elements of the teaching process, such as course outlines, or informing the students.

1. Introduction

The Budapest University of Technology and Economics (official abbreviation BME) was founded in 1728. It is the most prestigious and significant 'university-of-technology' in Hungary. BME has eight faculties, about 1200 lecturers and 20,000 students.

Although BME is a typical 'technology style' university and it issues about 70% of Hungary's engineering degrees, its largest faculty is the Faculty of Economic and Social Sciences (official abbreviation GTK). GTK has about 5,000 students on its bachelor and master programs, mostly in the fields of business, engineering management, and communication and media science.

GTK launched a special peer review of teaching program in 2015. By spring semester 2016 the program reviews about 20 courses. Almost 100 lecturers have been involved either taking part as peer reviewer or reviewed.

The questionnaires used in the review program to cover the whole teaching process were developed with the help of colleagues with quality management, pedagogy or psychology background. The peer review program is completed by both student evaluations and lecturer self-evaluations.

An important contribution of the BME GTK's process that it evaluates not only the classroom performance but it includes the assessment of course outlines briefs, teaching materials, course requirements, and processes of student evaluations, as well.

2. Literature review

In an early work Hodgkinson (1994) finds that there is value in promoting peer observation of teaching models in higher education institutions and draws attention to the amount of time for such assessment activities. Adams (1994) deals with the classroom teaching appraising in higher education from a quality assurance view. He uses the 'buddy-buddy system of appraisal' term for the approach which is similar to ours. Washer (2006) offers an extensive and excellent review of the literature on observation of teaching in a higher education context.

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Tillema et. al (2011) focus on what quality criteria are specifically relevant to assessment for learning. They underline that peer assessment can have positive effects on motivation and engagement in learning of students. Abedin et. al (2013) find that there are no significant differences between students' and lecturers' perceptions on course evaluation process. Both sides feel that students evaluate seriously. However, both of them consider that the evaluation process important and useful for improving quality of teaching. Klimova (2014) emphasises the importance of self-reflection in a course evaluation. Marlowe et. al (2012) focus on the peer review of the curriculum. Courneya et. al (2008) investigate the critical role of training program for reviewer participants. They find that reviewers' evaluations are quite different before and after a special training program about professional teaching, so they argue for the importance of preparation programs for the participants.
The paper by Mason et. al (2003) presents survey data from professors in various disciplines in colleges of business across the USA in connection with the perception of declining quality. The paper confirms the premise that student skills have eroded, at least within the minds of faculty, so senior faculty have dumbed down their courses in several areas "in order to accommodate their current students, and protect themselves from the consequences of not doing so". However, they think that must trust that "students can and will do more if motivated to do so".
Perlman and McCann (1998), Brent and Felder (2004), Blackmore (2005), and Samson and McCrea (2008) report outstanding peer review of teaching protocols from several universities.

3. Framework of the peer review of teaching program

Student evaluations have been existing for almost 20 years at BME GTK, and almost the half of the students fill out the online course evaluation forms. This high rate indicates that there is a strong culture of assessment of teaching at BME. Besides that, younger colleagues are sometimes observed by more experienced colleagues from the same department, but it is far away off from a developed and continuous peer review process. The form of self-evaluation is surprisingly evidenced due to video-recording of lectures which are commonly re-watched by the lecturers of the given course as well. However, a professional judgement system from the academic side has been missing.
In order to achieve a more balanced picture, and moreover, to improve the quality of teaching as a strategic goal, GTK decided to introduce a peer review of teaching program. At the beginning, based on the relevant literature and international experiences, the following basic requirements were declared:

- Training for both observing and observed lecturers before participating in order to understand the whole reviewing process, their role in each step and the documentation and administration.
- The full range of teaching and learning activities should be observed such as
    - course outlines and schedule
    - classroom observations
    - teaching and course materials
    - oral and written communication with students
    - methods of student evaluations (midterm tests and exams)
    - self-evaluation of observed lecturers at the end of the semester
- Involvement a variety of specialists and professionals in the 'pairing'. A lecturer is peer reviewed by 4-5 colleagues basically from different departments. The group of reviewers include both more and less experienced lecturers (representing different generations). Each observer visits at least 3 consecutive classes in the same course taught by the given lecturer and at least 1 occasion when students' performances are evaluated (e.g. written and oral exams, midterm tests).
- Regular participation: some colleagues who were observed became observers in the next semester and vice versa.
- Final meetings at the end of the semester to discuss the semester-long performance of the observed lecturer, and to identify strengths and areas to improve.
- Create a common language for talking about what constitutes high-quality teaching and how classroom practice can be improved.

The framework allows assessment in many dimensions of teaching and outlines a set of specific and observable teaching behaviours within each dimension. Most of the behaviours can be assessed quantitatively using a rating scale. Room for comments and notes are provided, allowing for deeper and more nuanced assessments.
Stages of the process:

Planning stage: selecting the courses and teachers to be observed, heads of departments delegating colleagues for taking part as observers, pairing observed teachers with observers, and training for participants
Observation stage: observing classroom performance and additional elements of teaching performance (communication, midterm tests etc.).
Initial feedback stage: applying the prepared forms on the generic issues for the different observations. The observed person receives written feedback and they can discuss at the closing meeting too.
Final feedback stage: based on the evaluations given during the semester and on the self-evaluation outcomes relevant issues are discussed, strengths and improvement opportunities are identified both in connection with the lecturer and with the course itself.
Dissemination stage: the vice-dean responsible for the program informs various committees.
Action: committees take necessary actions, make proposals, initiate any training, etc.

At first, the peer review program has been introduced at bachelor programs, and to begin with we have focused on courses with the highest number of students. It means that we mostly observe typical lecture theatre type courses. From 28 such courses 11 was chosen in the first phase (in the fall semester 2015). These 11 courses were taught by 16 lecturers and 35 observers were involved. (The 11 courses, credit, number of students: Business Economics, 5-652; Applied Statistics, 5-468; Marketing, 5-713; History of economy, 3-272; Macroeconomic finance, 3-130; Accounting, 5-450; Environmental economics, 3-427; Economics, 5-463; Psychology, 3-197; Social communication, 2-57; Mathematics, 6-534.)

4. Results

The following figures highlight some of the results derived from the program in fall semester 2015. In Fig.1. the diagram on the left illustrates the average evaluation scores (1-5, 1: worst and 5: best) given for each lecturer (L1-L16) (based on the average scores given by all reviewers in 19 evaluation dimensions: *D1 Communicating learning objectives, D2 Communicating course requirements, D3 Positioning the current subject to the curriculum, D4 Quality of the introduction part, D5 Volume, intonation, D6 Grammar, intelligibility, speech rate, D7 Learning, explaining the terminology, D8 Explanatory capability, D9 Maintaining students' attention, D10 Choosing the proper presentation techniques, D11 Quality of the slide show, D12 Consonance of the slide show with verbal communication, D13 Political correctness, D14 Consonance of the current subject with the course objectives, D15 Consonance of the lecture structure and the applied course materials with the course objectives, D16 Structuring course materials and the slideshow, D17 Consonance of course materials with requirements of the course, D18 Logical structure of the presentation, D19 To what extent the current lecture supports the student preparation for evaluation*). It can be seen that for most of the lecturers the average evaluations do not differ more than a half unit, and some lecturers were more divisive.
The diagram on the right presents the differences in average evaluations in each dimension by taking all lecturers and reviewers into consideration. It highlights those dimensions where general problems can be addressed as the means are lower (e.g. D9, D10, D4), or where there are bigger differences between lecturers' performance (e.g. D9, D16, D6).

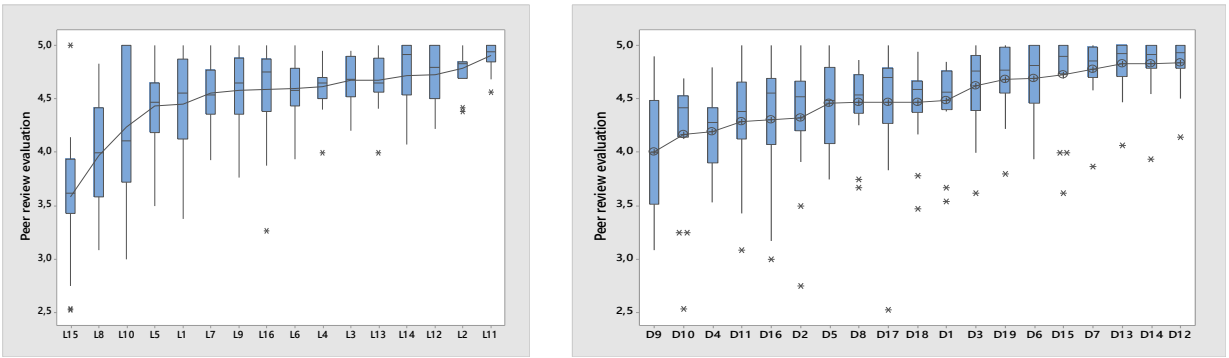

Fig.1. Bloxplot diagrams of peer review evaluations by lecturers (left), and by evaluation dimensions (right)

Fig.2. maps the stochastic relationship between the average peer review evaluation and the regular students' evaluation results for the lecturers. This shows strong correlation (R^2=86.6%).

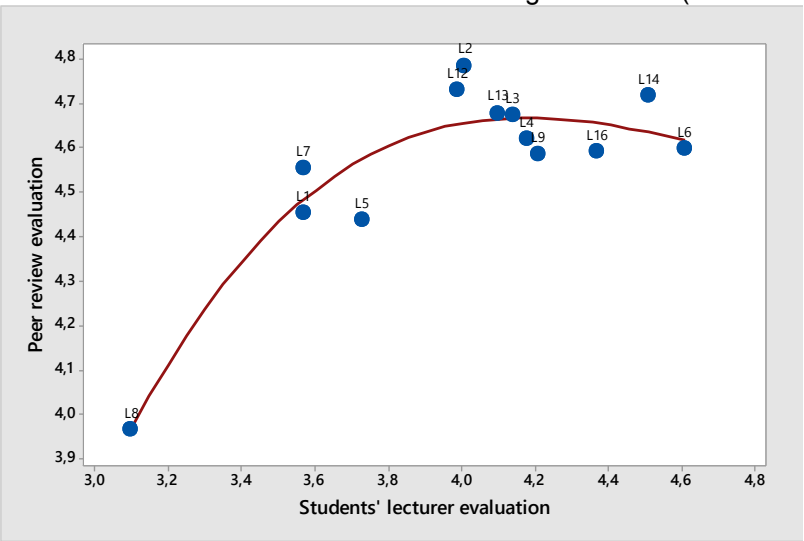

Fig.2. Relationship between peer review and student evaluations

An important conclusion may be that most identified mistakes are not connected with classroom teaching activities but with such other supplementary elements like structuring course outlines, course materials, or the organization of midterm tests and exams. Observers have strengthened that they have learnt quite a lot during the observations concerning presentation and gamification techniques, enhancing student involvement and interactions. The program got people to talk about what they are doing and how they can achieve that. The program contributed significantly to a professional community building and to motivate more interactions between the different institutions of the faculty. Furthermore, in accordance with the primary goals, more focus and attention are paid to students being one of the direct customers of tertiary education.

A "culture of peer reviewing" is a critical factor in order to enhance quality improvements in teaching. It is an essential process for searching best practices, ideas, tips and identifying common mistakes, bringing about changes in teaching practice and introducing new teaching methods both on individual and faculty level.

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