

Improving Classroom Dynamics Through Teaching–Learning (Academic) Audit

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Abstract Beyond the physical arrangement of a classroom, a psychological environment is also created, based on the interaction of key players in the classroom, namely, students and teachers, and their interaction which creates class dynamics. Moos's work, which has permeated the literature on classroom environment, is based on three essential areas of classroom environment: (1) relationship dimension, which focuses on the interpersonal relationships between students and students and the teacher in a classroom; (2) personal development dimension, which centers on individual characteristics of the classroom member; and (3) system maintenance and change dimension which includes attributes such as classroom control and order as well as responsiveness to change. The process of academic audit captures the classroom dynamics in an environment of ease and comfort. Classroom dynamics here refers to delivery effectiveness, learning experience of students with different learning preferences and styles, and factors that hinder the effectiveness of both teaching and learning. A detailed audit process is laid down including the guidelines to auditors and postaudit counseling to faculty. The audit is designed to capture the five important dimensions of a teacher, namely, subject knowledge, preparation, communication, class control and concern for students, and opportunity to interact. The audit process is going to map the individual teacher and the course on a ten-point scale with appropriate weights for the five dimensions. Weightages for dimensions are decided based on the opinions of the senior faculty and academicians. Based on the scores, the faculty competency enhancement is

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planned and appropriate actions are initiated to train the faculty in the specified dimensions. The outcome of the audit is evident in terms of improved learning outcomes, enhancement of teaching deliveries and competency, collaborative learning, and good academic environment.

Keywords Room dynamics • Teaching dimensions • Teaching index • Academic audit • Audit procedure

1 Introduction

It is no longer enough to simply transmit information that students memorize and store for future use. Education today must focus on helping students learn how to learn, so they can manage the demands of changing information, technologies, jobs, and social conditions. In fact, a growing body of research suggests that students learn more deeply and perform better on complex tasks if they have the opportunity to engage in more “authentic” learning: projects and activities that require them to employ subject knowledge to solve real-world problems. Beyond the physical arrangement of a classroom, a psychological environment is also created, based on the interaction of key players in the classroom, namely, students and teachers which creates class dynamics. Moos’s work, which has permeated the literature on classroom environment, is based on three essential areas of classroom environment: (1) relationship dimension, which focuses on the interpersonal relationships between students and students and the teacher in a classroom; (2) personal development dimension, which centers on individual characteristics of the classroom member; and (3) system maintenance and change dimension which includes attributes such as classroom control and order as well as responsiveness to change.

Teaching–Learning (Academic) Audit systematizes an institutions approach to quality by focusing on a body of content that must be considered before an analysis can be accepted or completed. This body of content is the focal areas of quality work: (1) learning objectives, (2) curriculum, (3) teaching and learning methods, (4) student learning assessments, and (5) quality assurance. Classroom environment encompasses a broad range of educational concepts, including the physical setting, the psychological environment created through social contexts, and the numerous instructional components related to teacher characteristics and behaviors.

Overcrowded facilities, too many students in certain classes, and lack of teachers’ assistants are three major issues cited as potentially creating problems due to increased stress levels of students and increased teacher-reported incidences of behavioral problems. These increased stress levels and behavior problems found in larger classrooms are frequently accompanied by lower levels of academic achievement.

2 Psychological Classroom Environment

Many teachers equate student engagement and on-task behavior with classroom participation, typically a top concern for teachers. Researchers support teachers' intuition of a difference in the participation style of the different genders. Whereas girls are more likely to participate as part of the relational responsibility they feel toward the teacher, boys tend to respond more often if they feel the class is interesting and less often if the class is perceived as boring—indicating that for these students, teachers may be equally responsible for the participation level and learning.

Helen Patrick and colleagues found that there is a strong, positive relationship between students' level of motivation and engagement and their perceptions of the classroom environment as being socially supportive. The perception of a climate of mutual respect is required in order for students to increase their use of effective study strategies and increase feelings of confidence about their ability to successfully complete assignments. Furthermore, when students perceive that they receive emotional support and encouragement from their teachers and academic support from their peers, they are more likely to be on-task in the classroom and use self-regulated strategies. Classroom rules and procedures should be introduced early in the school year and consequences should be enforced consistently across students and throughout the school year. Research has shown that routine and fairness have a positive impact on behavior as well as academic quality. It has been found that teachers who run respectful classrooms are in turn more respected by their students, and students believe that these teachers also hold higher learning expectations. Teachers are encouraged to focus more on the learning task than on the outcome or grade assigned at the end of the task, although this becomes much more difficult if the emphasis in education is placed on accountability and high-stakes testing.

3 Teaching–Learning (Academic) Audit

The study classroom environment has been widespread across nearly all subspecializations of educational psychology. Researchers are interested in relationships between environment constructs and multiple outcomes, including learning, engagement, motivation, social relationships, and group dynamics. Early researchers recognized that behavior is a function of people's personal characteristics and their environment.

Academic audit is one of the three main types of higher education quality evaluation in use today around the world. (The other two are accreditation and subject-level assessment.) David Dill describes it this way: In contrast to accreditation, program review, or student assessment initiatives, [academic] audits look deeply into the heart of the academic enterprise. They test whether institutions and their faculties in fact honor their public responsibility to monitor academic standards and improve student learning.

According to Dill, the reviewers generally agree that academic audits have made improving teaching and learning an institutional priority; facilitated active discussion and cooperation within academic units by means of improving teaching and learning; helped clarify responsibility for improving teaching and learning at the academic unit, faculty, and institutional level; and provided information on best practices within and across institutions [2, 3]. Moreover, audit focuses on “education quality work” (EQW, to be defined below), which is emerging as the key element of institutional quality programs. External agencies can evaluate EQW more easily than education quality itself. Panel selection and training appear easier, cycle times can be shorter, and institutional diversity is more easily respected than in other forms of evaluation. “Education quality work” (EQW) means the activities of faculty, academic leaders, and oversight bodies that are aimed at improving and assuring education quality. It should empower and stimulate faculty to continuously improve teaching and learning and help academic leaders and others to discharge their oversight responsibilities without micro-management. EQW should not be confused with teaching itself [1].

4 Design and Implementation of Academic Audit: Case Study

4.1 Institute Profile

Rajarambapu Institute of Technology is established as self-financed private engineering college in the year 1983 with an objective of imparting quality engineering education to aspirants in general and students from surrounding rural area in particular. Currently, the institute offers seven undergraduate and six postgraduate programs engineering and three departments offer research programs leading to PhD. All the eligible programs are accredited by the NBA. The institute has successfully implemented TEQIP phase I and selected for TEQIP phase II, one among the four self-financing institutes selected all over India.

4.2 Need to Implement Academic Audit

Many of the private technical institutions which have come up in recent past, especially in small towns, are facing acute shortage of faculty with required qualifications and requisite skills and aptitude for teaching and research. It is difficult for these institutions to attract best talent and retain them. The institute referred above devised its own strategy to develop faculty by developing its own model to recruit faculty at entry level and plan career growth for each one, extending opportunity to enhance qualifications, and upgrading on continuous basis their capabilities, both technical and administrative, through planned training. This strategy calls for continuously evolving innovative practices and new systems to improve the quality of

teaching–learning process, students’ learning, and competency of faculty and staff to meet the ever-increasing expectations of stakeholders.

Conventional feedback system which is in practice in majority of the institutions is an indirect method of capturing students voice which has an inherent advantage in terms of easy to implement and no interference from the faculty. As compared to this, the academic audit focuses on issues related to teaching–learning with an intervention of an experienced academician as an auditor. The auditors visualize multiple facets of teaching–learning and come out with clear observations and action plans.

The purpose of the audit is to improve the effectiveness of the delivery of the faculty to enhance the students’ learning in terms of clarity of concepts, application of concepts for problem solving, and grasp of the subjects to secure good grades in examination. The audit aims at bridging the gap between teaching and learning through a proper communication and feedback system.

4.3 Audit Procedure

4.3.1 Selection of Students for Participation in Audit

Ten representative students from each class are included in the audit process, which forms heterogeneous group representing typical student mix in a class. Monitor of the class will identify the students and ensure that they will be made available to the academic auditors nominated for the class for interaction and giving feedback of teaching–learning process.

4.3.2 Appointment of Auditors

Experienced faculty members having a good standing as a teacher will act as auditors. The auditors should be able to establish a good rapport and create conducive environment for the students to interact, express themselves, and critically comment without any bias and fear about the classroom teaching–learning process. The detailed schedule of the audit including the assigned class, subject teachers, and student’s names will be made available to the auditors.

4.3.3 Audit Process

The auditors are expected to use their expertise and experience to have a good grasp of the classroom dynamics and should be able to assess the classroom teaching and learning progress. The focus should be on whether the learning of the students is progressing in the right direction and at the same time whether teacher is making good attempt to address the learning of the entire class. During the process of interaction, the students should be given ample opportunity to express their feedback

without any inhibitions and fear of after effects. During the interaction, the effort of the auditors should be fact-finding through evidences rather than prejudices and perception.

4.3.4 Audit Venue

The audit is supposed to be conducted at a place preferred by the auditors. Only care should be taken to choose the venue other than home department of the students. This helps to maintain the identity of students confidential.

4.3.5 Duration of Interaction with Students

The audit committee can have a maximum of two meetings per audit of a class (as they are required to have feedback of five or six subjects). Each meeting should have a maximum of one-hour duration. The time and venue can be decided by auditors.

4.3.6 Confidentiality of Feedback

The proceedings of the audit meeting should not be made public and also the feedback should be given only in a format for which guidelines are given.

4.3.7 Audit Report

The audit feedback should be communicated in writing to the academic audit coordinator in a prescribed format for the individual faculty, within a time period of one week after the completion of audit. Any delay in sending the report renders the whole effort ineffective and fails to serve the purpose of the audit.

Dean Academic/Respective Head of the department is required to review the audit reports after receiving from the co-coordinator and write special remarks with guidelines to improve the performance of the faculty in areas suggested. Those who have a satisfactory performance should also be communicated with appreciation. The actions to be initiated are as follows:

1. Communicate the performance report in person to each faculty.
2. Suggest the strategy to improve the areas suggested during the remaining period of this semester and ask teacher to prepare a concrete plan of action to bring improvement.
3. Support and motivate the faculty to implement action plan and assess the progress.
4. Have an individual counseling meeting with faculty and ask faculty to come out with the lecture notes, teaching plans, etc.

5 Outcomes and Discussions

The Institute is practicing academic audit since 2010 with a sufficient awareness and training to auditors. In spite of initial teething problems during implementation, the audit model is tending toward maturity with a substantial cooperation from both faculty and students. The average scores of faculty and average teaching index and percentage of faculty below the average are represented in Table 1, Fig.1, and Table 2. The average teaching index computed on the basis of weighted average scores of five dimensions has increased by 20 % in 2012–2013 compared to 2010–2011 due to individual faculty efforts to improve the weak areas. The results indicate that planning and delivery, class control, and concern for students are the issues still to be addressed, as they are below the average of institutional average teaching dimension. In order to improve these areas, the institution has taken up many initiatives like preparing outcome-based course plan, articulating the teaching methodology based on the students learning styles, improving communication through toast

Table 1 Average values of teaching dimensions

S.No	Teaching dimension	Max. weight	Average scores of all faculty		
			2010–2011	2011–2012	2012–2013
1	Subject knowledge	3	2.14	2.25	2.43
2	Preparation and delivery	3	2.07	2.30	2.55
3	Class control	1	0.60	0.70	0.80
4	Communication	1.5	0.90	1.00	1.10
5	Concern for students	1.5	1.02	1.12	1.20
Average teaching index		10	6.73	7.37	8.08

Fig. 1 Average teaching index of faculty on a 10-point scale

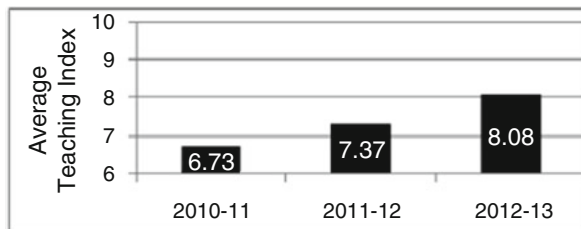


Table 2 Percentage of faculty below average teaching index

Year	Avg. teaching index	% faculty below avg. teaching index
2010–2011	6.73	32
2011–2012	7.37	23
2012–2013	8.08	18

master club for faculty, and also personal counseling to faculty to look into the problems of individual students and open and free communication between students and faculty.

The faculty below the institute average mainly constitute new faculty who have just started their career and pedagogical sessions are arranged to this group to raise their competency level as a teacher. Special workshops are arranged to work with them and orient them to teaching profession.

In order to encourage and reward the well-performing faculty, a reward system is being introduced, because of which they are motivated to improve the overall effectiveness of their delivery. Thus, the analysis gives us a clear understanding of areas to improve and devise training program to improve the performance. It is an ongoing exercise to achieve excellence in teaching–learning process. Academic audit is not a mere evaluation and grading of a teacher. It helps to identify the gaps in learning process of students and teaching effectiveness and sets a stage for continuous improvement. The mandatory requirement for the success of this process is the trust and respect for the students' feedback and integrity of an auditor.

6 Challenges Faced During Implementation

The challenges and obstacles faced during implementation are listed as follows:

- Students are reluctant to openly share their feedback and opinions about the teacher as there is a fear of revealing their identity to faculty.
- Faculty perceived it as a tool for management to assess their classroom performance and adverse results affect their career in the institute.
- As always, faculty assume that students' capability to give correct feedback is in question.
- Senior faculty involvement in the process was limited and always complained of increased work without many gains.

7 Continuous Improvement in the Audit Process and Sustainability

The above challenges in the audit process made the conviction strong to implement the system and improve the system continuously based on the feedback received from all stake holders. The objectives of the audit are shared with both students and faculty to seek their full acceptance and cooperation. This increases the chances of success and sustainability and whole-hearted participation of both faculty and students to make this practice unique and meaningful.

8 Conclusions

The process of academic audit captures the classroom dynamics in an environment of ease and comfort. A detailed process is laid down including the guidelines to auditors and postaudit counseling to faculty. The audit is designed to capture the five important dimensions of a teacher, namely, subject knowledge, preparation, communication and concern for students, and opportunity to interact. The audit process is going to map the individual teacher and the course on a ten-point scale with appropriate weights for the five dimensions. Based on the scores, the faculty competency enhancement is planned and appropriate actions are initiated to train the faculty in the areas. The outcome of the audit is evident in terms of improved learning outcomes, enhancement of teaching deliveries and competency, collaborative learning, and good ambience for academic environment. Continuous improvement should be the way of life as what works today may not work tomorrow. We should continuously strive to achieve excellence in what we do.

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