

Evaluation System in Technical Institutes of India: A Benchmark

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Abstract

The examination, evaluation and achievements through grades or marks are important aspects of any learner. The present contribution has taken a holistic view of evaluation in Indian Institutions through a case study method of two premier technical institutions of the country. The evaluation system starts since birth of the child and continues whole life with varied parameters and nature of evaluators. The students before taking admission measure the credentials and overall performance of the institutes. However, this is very relative and depends on self evaluations of the individual. After becoming a student their performance is evaluated by faculty members and other system existing in a particular institute of higher learning. When pass out students their evaluation is conducted by third party i.e. the employer. Through case study method the opinion of the students and faculty members were sought for the two technical institutes named as H1 & H2. The first one having multifaculty academic programmes was established in 20th century whereas H2 was established in 21st century. The comparative studies include physical infrastructure related to examination, admission & academic programmes alongwith laboratories equipped with latest instruments and games including recreation facilities. However, we are concerned to examination, evaluation and grading aspects only. The overall results reflected that H2 is better placed in comparison to H1 which was expected being of recent its origin.

Keywords:

Examination, Evaluation, Grade, Students Assessment, Policies, Education, Performance, Outcomes

I. Introduction

The primary objective of Evaluation Systems in Institutions of Higher learning is not only to serve the Learning but to engage in activation of a process of un-quenching quest for knowledge and unbinding the forces of incremental learning to develop an accomplished individual. Continuous brewing of a learning mechanism to yield a catalyst to convert a taught into a bench mark in the chosen area of specialization to beholden as a linchpin in contemporary society. At the same time the evaluation style needs to be accepted as a tool for objectively

quantifying the intellectual and active processes that are impacted upon by the experiences, expectations and culture of the teacher, the taught and the overall institutional ambience. It is therefore incumbent upon the institutions to provide the right kind of environment and instruction to facilitate learning by students as well as educators. The Evaluation Systems in Institutions of Higher Education therefore need to comprise of such instruments and policies, that are fair, objective and transparent to all stakeholders, such that Students are able to co-relate themselves with their learning goals, Faculty members and academic administrators with their learning and career goals and the Prospective Employers, Assessment and Accreditation agencies, Funding Agencies, Policymakers, etc. with the overall qualitative Systems of the Universities and accreditations. The process should be such that a common denominator could be evolved which is universally applicable to one and all in an unbroken chain of traceability.

Knowledge is always incremental and never terminates to an end point thus, educators further have to evolve an unbridled manner to incessantly gain knowledge and to give impetus to teaching to reach to newer heights. The role of the evaluation system here is to act as a colloid where the inputs from the society and individual student level is amalgamated and get dispersed in the Institutes pedestal.

It may be pertinent to mention at this juncture, that the "Evaluation Systems" encompasses the three kinds of Evaluations, as follows:

- 1) Evaluation Systems of the Institutions, which evaluate the student from the time of his being a prospective candidate till he graduates from the Institution.
- 2) Evaluation Systems that are used by students to evaluate the Higher Education Institutions, while they maintain their life cycle at the Institution and beyond.
- 3) Evaluation Systems that are adopted by third parties, with a view to measure the overall effectiveness of the Institutions.

The diverse expectations of this heterogeneous group of

stakeholders for Evaluation Systems in Higher Education Institutions can however be met through the development of unbiased principles and indicators. And a lot of work on this issue has been undertaken by Academicians, Researchers, Scholars, Administrators, individually as well as through their Communities of Practice, Social groups, forums, etc.

In this paper, the focus is on the evaluation and its impact on human resource management of technical education of India. However, before presenting the case study results where contributions and opinions of faculty members and students have been analysed to find out their perceptions about the evaluation systems [1-3, 8-10, 13] of the two institutes. Some of the important aspects related with these aspects are enumerated as under:

II. Self Evaluation

An individual is the best judge of his capabilities so it's the first step of any assessment system to continuously and scientifically self monitor the strengths and weaknesses with a proactive approach of milking and sharpening the strengths and eliminating the weaknesses.

As an acceptable professional practice, Evaluation Systems must be equitable, fair and transparent. Additional care is warranted in making the evaluation systems with minimized impact of biases of persons developing, conducting, analyzing the outcomes, biases owing to being based on perceptions or experiences of a particular cohort of people, etc. Evaluation Systems are rather expected to *inter alia* address the special needs of disadvantaged groups like those weak in English, those with physical, locomotors and mental disabilities, etc. Precisely therefore, Evaluation Systems used must be developed by experts, such that, learning in diverse populations, with diverse styles is taken care of while preserving the overall intent, integrity and validity of the evaluation. Using multiple, but equivalent methods for evaluations, have often been therefore appreciated, as they allow ample opportunity for the one being evaluated on one hand and ruling out the adverse consequences that would have otherwise crept in, owing to lack of awareness of the ones being evaluated, with a particular method of evaluation, on the other.

III. Evaluation Systems of the Institutions

The student life cycle at any Institution, generally, starts with his being under consideration for admission at the Institution and continues through his enrollment, till his graduating out of the institution. As a prospective candidate for admission, his evaluation is influenced by the factors like whether he is a motivated candidate (coming to seek admission after having prior knowledge

about the program and the institution), a referred candidate (candidate referred to an institution by another satisfied student / alumni), a candidate seeking admission after being selected through a public / institutional entrance examination, a repeat candidate (Coming for a second Degree after completing their first degree), etc. In either of the cases, largely, the past exposure and commitment of the candidate is under evaluation through a look at his past achievements or the achievement of the candidate in the entrance examination. As an evaluation system, since achievement at any single instance could be influenced by the chance factors, continuity and consistency of past achievements is only to be relied upon.

Once the prospective candidate has however been converted into a student, the focus of Evaluation shifts to the regular and continuing work by the student at the Institution, under the care, guidance and support of the educators. The evaluation mechanisms at this stage, while include a blend of structured as well as informal observations, they have definitely to be consistent with the pre-defined learning goals of the students, curriculum that is under offer, medium and mode of instruction adopted, prior knowledge of the student in the relevant areas, students keenness to learn, etc. The evaluative methods in general, include a balanced mix of activities like, evaluation of Experimental methodologies & outcomes, performance in Tests, Quizzes, tutorials, projects, etc.

Experts have generally accepted two broad classes of Student Evaluation systems, while they are at the institutions of Higher Education. These refer to the Classroom evaluation and the Large Scale evaluation. The classroom evaluation while affects the learning outcomes of students directly, the large scale evaluations assess the readiness of the student for the larger constructive purposes that may or may not be defined within the formal educational ambit and warrant thoughtful application of the acquired knowledge, by the student in their day-to-day lives. One of the basic necessities of these evaluation mechanisms is that the methodology adopted vis-à-vis the outcome of the assessment, both are well understood by the students, the evaluators and also the parents & well wishers of the students. Like other evaluation systems, these evaluative measures also are expected to be compatible with the dynamics of as to how the learning takes place inside the classroom of an Higher Education System, along with also allowing the students the time, pace and variety to learn and succeed through the evaluation mechanisms.

Classroom evaluation while promotes competition among pupils, it also serves as a reflection of the classroom activities and also acts as a feedback for educators, administrators and policymakers to further improve the classroom interaction and learning. In the process, this also empowers the teachers and the taught alike.

It has also been observed that the student evaluation

during his tenure at the higher education institution will be impacted upon positively if both the educators as well as the students are conscious about their roles. While the educators need to know the status on aspects as to what is the current level of students, where each learner is expected to reach, how is the learner to reach that target, what resources are available when the educators realize that the students is not making the desirable progress, how is the student to be informed about the evaluation outcome, so that he is able to take an informed pronouncement on the corrective measures to be adopted by him, etc. Also the students need to be aware that, in the process of learning, it is they who have more responsibility towards their own learning, which extends beyond achieving a specific grade or being able to get through a set of evaluation mechanisms. It is they who have to strive hard to surpass the standards, with the support of and collaboration with the various ingredients of the learning system viz. the teachers, the educational administrators, the instructional media, their peers, etc. All this is to collectively communicate to the student that he is the part of a larger community of learners that strives for a lifelong learning. These evaluation systems are since handled by accomplished faculty members within the institutions of higher education, it is needless to emphasize or question the relevance and importance of validity & reliability, in both developing as well as analyzing the outcomes of these evaluation.

IV. Evaluation of Institutions by the Students

Once the students are at the Universities, they also undertake an often tacit, evaluation of the institution, through its systems and processes by which they brush upon and are affected in their daily routine. Each student evaluates the institution with respect to his pre-determined learning goal and tall ideals of University education that had motivated him to seek admission into that system. In the process, therefore while all the components of Higher education system the teachers, the administrators, the university processes, the physical infrastructure, etc are under the student scanner, it is largely the teaching that affects them more. Teaching includes the content and instructional medium & methods alike. The available levels of these are evaluated vis-à-vis that are known to the students through internet, friends and relatives studying similar programs at other universities, within the country and abroad. The evaluation systems by different cohorts of students are though not as structured and scientifically oriented as in the previous case, the standards of instructional delivery, wholesomeness of the contents, employment orientedness of the skills being imparted, are a few parameters that have come to light.

Despite being largely unstructured and lacking scientific reasoning, for the development of notions in the minds of students, based upon their own evaluation of institutions, the feedback from the students has been found to impact the institutional performance, repute and the overall quality of teaching at the institution. Based upon the same feedback, while the good teachers & administrators could be rewarded, new capable ones could be invited to join the institution, contents of the instructional material be made richer, interesting & more relevant, teaching methodologies could be refined, administrative processes could be remodeled to appear more student friendly, emphasis could be laid on newer aspects of the upcoming facilities, by making them more hospitable & safe, laboratories could be facilitated with better & modern equipment, libraries could be enriched and made more cleaner, accessible & super friendly more items and services could be shifted from the list of “general” ones to the “essential” ones, etc. Even the evaluative mechanisms adopted by institutions in evaluating the students could be improved, or the actions on the outcomes be modified.

As a positive outcome of this evaluative exercise [4,6-7,11,14-17] undertaken by students on the institution and the subsequent feedback accepted by the institution, what is however definite is that, the overall learning experience of the learner improves and the environment becomes more proactive, leading to the production of such a manpower to the nation, which is more informed and better equipped to handle the responsibilities of life in future.

V. Evaluation by third parties

The output of the university institutions is the qualified (and also often skilled) manpower, since a vital input into the national human resource, through their prospective employers, systems, processes, curricular contents, instructional methodologies, etc. are all under a continuous scrutiny by the employers of this manpower coming out of the portals of these institutions. Also accreditation and funding agencies, comment upon the various aspects of university education, through their own evaluation system [12-18].

Potential employers are the first ones to face the university educated manpower, directly. They therefore have the opportunity to evaluate the university systems primarily through their interaction with the students. Their evaluation systems therefore are guided by the student knowledge and disposition during long and often multiple interview sessions, activities like group discussions, role play, presentations, case studies, etc. In cases where employers visit the campuses of the institutions for recruitment, the employers evaluation is then also influenced by their interaction with the faculty members &

academic administrators of the institution, their visual feel of the physical infrastructure available and accessible by the students, their feeling on the commitment and sincerity of all those involved in imparting quality education at the institution.

To facilitate primarily, the mobility of students from one university institution to the other, for similar or higher degree, the evaluations undertaken by accreditation bodies, is the one that comes handy tool for the students, parents, funding associates, alike. Accreditation agencies undertake exhaustive evaluations of university institutions by peers of high academic and administrative accomplishments, against the criterion that are balanced internationally across various ideologies and beliefs. The evaluation criterion of the accreditation bodies are focused upon the effectiveness of the institution as a whole and therefore include evaluation of Organization and Governance, Administrative & Financial Management, Faculty strength and strengths, wholeness & richness of Curricular contents, Instructional quality, Student services (available as well as accessible to them), Library & learning resources, Research activities, Physical Infrastructure, Ethical practices, Industry Institutional interfacing, efforts being invested by the institution in undertaking further modernization, etc.

The university institutions are since subjected to Accreditation by multiple agencies, each of which assign different weightages to different criterion, the results of accreditation bodies are therefore to be understood visa-s-vis the individual priorities of students & stakeholders. For institutions however, each accreditation report is a piece of a careful & masterly evaluation-cum-feedback on its current policies, practices and outcomes, and therefore viewed positively.

Funding agencies are another important arm of the functioning of higher education institutions, as the much needed finance comes from them. Apart from the fact that these agencies, both public as well as private, rely also upon the findings made public by the accreditation agencies and the potential employers of repute, funding agencies also evaluate the university institutions on the parameters that are relevant precisely for them. Their evaluation systems are more focused towards issues like the history on timely completion of projects sanctioned in past, utilization of past funds as per the provisions laid out in the terms & conditions, adherence to financial economy, continued availability of experts in both technical as well as professional fields, timely submissions of progress reports, data on successful adoption of technologies in past by the industry, data on absorption of educated manpower produced by the institution, etc.

These evaluations, by third parties The Employers, The Accreditation bodies and the Funding Agencies, are all critical evaluations and observations upon the overall efficiency and effectiveness of the institutions.

And on the whole, while the issue of Evaluation Systems in Universities is a sensitive one, the three evaluation sectors that are active in the university institutions collectively are perceived as a Quality improvement continuum that foster creation of new knowledge and promote universities as the places for advanced learning and scholarship. The Evaluation Systems in Institutions of Higher Education therefore need to comprise of such instruments and policies that are fair and transparent to all stakeholders, such that Students are able to co-relate them with their learning goals [5,8,13].

VI. Case Study

As detailed out above the matter of evaluation system begins by parents of the children starting from childhood, relatives, society, teachers, people in employment sector involving several ladders of reporting officers and so on. In the present case study method two premier technical Institutes of India has been selected for confirming the statements made earlier. The first Technical Institute called H-1 having multi faculty courses was established in 20th century whereas the other national level Technical Institute called H-2 was established in 21st century. The comparative study of the two Institutes related to physical infrastructure i.e. administration, academic and residential complexes having various facilities such as:- office equipments, laboratory with latest equipments and facilities and residential complexes comprising of several amenities like club, health care systems, outdoor and indoor games, sports arrangements, conducive green environment, coupled with internet and associated facilities. The evaluation of these facilities has been made extensively by the human resources at the level of students, support staff, officers and faculty members of the two Institutes. In overall assessment it has been found that H-2 excels in almost all factors as opined by all human resources involved in the management, delivery of education, practical training, household services, maintaining residential complexes and facilities etc. as compared to H-1. In the beginning before start of the case study it was expected also that H-2 will have edge over H-1 since they will be employing latest technological inputs in their various endeavours.

In the following paragraphs the opinion of the students and faculty members are reflected as the two are receivers and givers of knowledge in the Institutes.

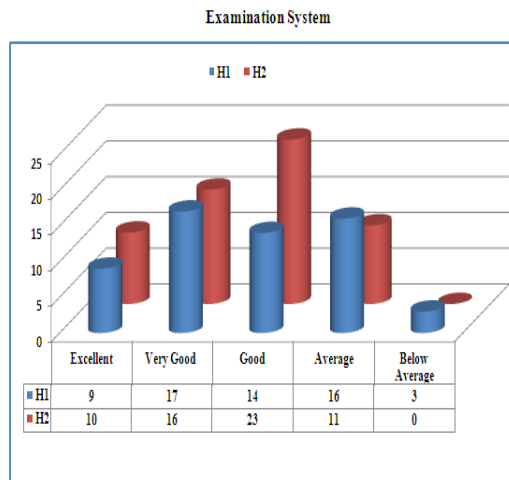


Fig-1. Perceptions of students for Technical Institutes- H1 & H2

Figure-1 reflects views of students about the existing examination system in the H-1 and H-2. In both Institutes about 12% students expressed that the system is excellent whereas about 25% in both Institutes agree that it is very good. About 18% say good in H-1 and 35% agree in H-2 with this. Similarly, 20% of H-1 reflects as an average and 13% are of the opinion that it is average in H-2 as well. It is very alarming that even in case of the Institute established in 21st century, the rating of the students about examination is not very satisfactory and on an average just 35% students in both Institutes are very close to satisfaction. Therefore, it is necessary that the Institutes must take corrective measures to improve their examination system as this is such an instrument which shapes the career of the students.

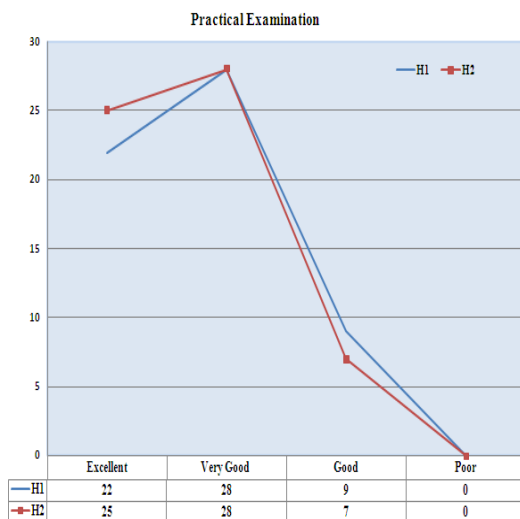


Fig-2. Perceptions of students for Technical Institutes- H1 & H2

In **Figure-2** the grading system of the two Institutes has

been evaluated by the students, which is related with the theoretical examination of the students. If we go to the practical side as reflected in Fig-2 it has been found that about 36% of H-1 and 40% of H-2 are satisfied and rated the system of practical examination as excellent whereas if we go to second category about 48% of both Institutes expressed the practical system as very good. However, almost 11% of the two Institutes rate the same as good. It is surprising and also a matter of serious concerns that even in case of practical which are mainly student centric all are not rating it as excellent. Therefore, there is a need to have both examinations to be evaluated by third party consisting of experts and find out a new way of examination covering intellectual capital of the students up to their utmost satisfaction. This study may be purposeful for other Institutes of India imparting technical and professional courses in general and to the institutions outside India in particular.

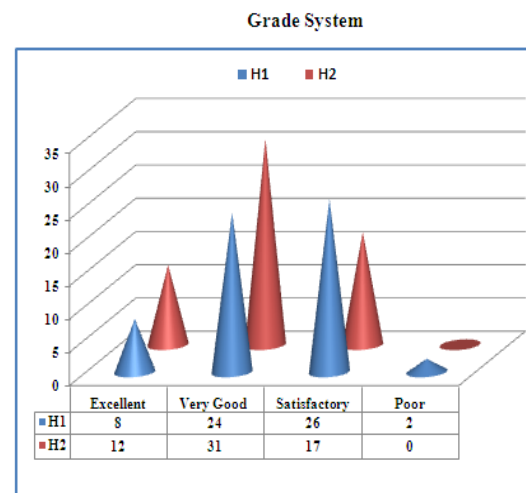


Fig-3. Technical Institutes- H1 & H2

Now, the next step comes to the grading system which is an outcome of the two examinations discussed above. There are several existing systems of grading in India which include annual assessment, six monthly assessments, normally called as semester system and trimester system in some of the cases. The continuous assessment and evaluation are a part of these systems. However, in some of the Institutions where annual system is being followed, continuous evaluation has not been an inbuilt component. In the present case as shown in Figure-3 about 10% in H-1 and 20% of H-2 rate the grading as excellent whereas their opinion as very good consists of 40% for H-1 and 50% for H-2. Similarly, the rating at the level of satisfactory level it is 43% in H-1 and about 30% in H-2. This also reflects that most of the students need another system which gives their satisfaction to the highest level. This is also a serious component which is going to be used for whole life in the career of the student. The above opinion or

valuation by students matters a lot since they are the actual users and if not properly handled it will hamper their career for whole life. The views of faculty members are also utmost value in arriving to conclusive suggestions. The following figures will reflect their contributions in this study.

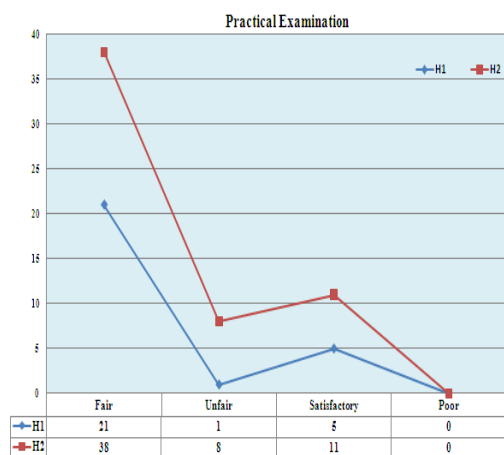


Fig-4. Perceptions of faculty members for Technical Institutes- H1 & H2

Fig-4 shows opinion of faculty members about the practical examinations in the two Institutes. This is a human nature for developing liking and disliking in a group of persons working with them. In case of students it is likely that faculty members may develop such opinion about pupils of their classes. Normally, those students who are brilliant, hard working, honest, committed and disciplined to their work, they become blue eyes boys/girls of teachers. This tendency is harmful in the fair assessment of capabilities and knowledge of the students. Keeping this into view, the study has reflected very interesting result. In case of H-1 more than 80% faculty members expressed that they are fair whereas about 60% in H2 shown the same opinion. 2% in H-1 and about 6% in H-2 feel that sometimes they are unfair with the students. In case of satisfactory level about 20% in H-1 and same percentage in H-2 feel that the teachers' behaviours and fair evaluation in the examination are satisfactory. Thus, there has to be more objective view and assessment of the students in practical examinations at the level of rewarding grades to them. The teacher is supposed to be an ideal person. Therefore, he has to be above the board for liking and disliking attitudes towards students.

Figure-5 represents evaluation system existing in H-1 and H-2. This includes award of grades to the students as well. In case of H-1 more than 95% faculty members expressed that they are impartial in evaluating answer scripts of

students whereas in case of H-2 it is about 85%. 5% in H-1 and about 15% in H-2 expressed that sometimes they are biased in the evaluation system. If we compare the opinion of students with the faculty members there is minor variation. It is natural also since the students expect much more what they have done.

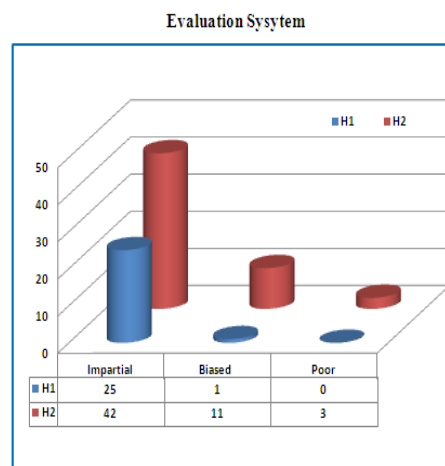


Fig-5. Perceptions of faculty members for Technical Institutes- H1 & H2

Whereas faculty members have to maintain equity, impartiality and objectivity in their approaches. More so, as the answer scripts after evaluation are shown to the students, therefore, it is very unlikely that partiality will be there with students. In any case the total evaluation system has to be relooked periodically to include and update the latest trends and research being conducted to make it more objective. This is also necessary in view of growth and development of newer technologies for making the delivery system and related issues of education more efficient, objective and understandable by the students.

VII. Conclusion

The evaluation as such is a continuous process of life for any human being. This may be for the person or by the person depending upon the age, place, working conditions, nature of job, surroundings and other similar parameters in life. In the present work an illustrative description of the evaluation system, its role, impact on life and targets have been worked out with theoretical description backed by case study of two technical institutes having different nature, year of establishment, size and other factors such as infrastructural facilities for administration, finance and academics have been taken into account. The micro-details of related facilities in these three pillar wings alongwith duties & responsibilities of human resources at different levels have also been considered for completeness of the study. The perceptions of students of these institutes

named as H1 & H2 for grade system, examinations including practical & theory, evaluation and marking practices have been reflected in Figures 1, 2 and 3. In summary the students of H2 are better satisfied as compared to that of H1. Interestingly they have suggested for better system to avoid subjectivity at the level of faculty members. The opinion of faculty members related to examination & evaluation have also been undertaken to make objective analysis for the existing system in the two institutes. In general, they are satisfied with the present system and in their opinion only a fraction of subjectivity is there in evaluation of achievements of the students. The study has established a benchmark for other institutes of India to have better system of examination, evaluation and grading.

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