

---

# ON SESSIONAL ASSESSMENT IN TECHNICAL INSTITUTIONS

\* V. K. Sarda    \*\* R.K.Dutta    \*\*\* Dr. R. Jha

---

## 1. INTRODUCTION

Technical education which is the backbone of the modern age, has witnessed a phenomenal expansion over the past two or three decades. Today's engineering graduates are required to be better informed technically apart from possessing different skills necessary for decision making, communications, handling of workers, leadership etc. They should be creative, innovative, discoverers, full of self-confidence and self-reliance and a good fit in the environment where they are likely to be engaged as trained technical man power. Numerous attempts have been made to improve the quality of technical education by establishing technical teachers institution, curriculum development centres and media centres to incorporate all such measures favouring the attainment of the objectives of technical education. As a result, tremendous improvements have been achieved by continuously evaluating courses and programmes, updating curriculum, introducing new courses, modernising resources and facilities which provide a close interaction between the teaching institution and industries. However, any successful education system neither depends only on the above mentioned input nor alone on competency in teaching and instruction facilities but also on the flexibility in curriculum and the evaluation procedure, particularly the award of sessionals which constitute on the average of 40% of the total allotted marks in a semester. This needs a systematic and formalised procedure in evaluation. In the absence of a standard

procedure, a short cut or arbitrary technique adopted in conduct of viva-voce or objective/ subjective class tests may lead to disastrous results and in extreme case lead to indiscrimination. As such, procedure for sessional evaluation deserves much more serious attention than what has been followed so far, An effort has been made in this paper to review the evaluation procedure and to design a valid, reliable and reproducible standard for sessional awards so as to ascertain a fair assessment of students performance in sessional work. The evaluation techniques should reveal the quantity of independent working of students.

## 2. EVALUATION SYSTEMS

There are two systems invariably used for evaluating the overall performance of students in a subject or a class.

### a) Credit System

In which overall performance of a student is rated by providing grades (E,A,,B,C and F) and is associated with grade points(10 to zero ), For example , a student is said to have done excellent if awarded E and assumed to have failed if awarded F. To pass in a subject, one is expected to get grade D, at least.

### b) Numeral or Division System

In this system overall performance of a student is rated by the percentage of marks or division or class (First, Second,Third,Fail) he/she is awarded. Numerals or ranges of marks ( 60 to 100, 50 to 60, 40 to 50 and below 40 ) decide the performance of a student.

As of today marking systems has been widely used right from primary to higher educations in Indian Universities for evaluating students performance in examination the analysis in the present study has been based on the marking system. However, the same can be introduced/ incorporated without any difficulty in credit systems also as the process variabilities of both the systems have been found to be identical.

### 3. METHODS OF ASSESSMENT

A curriculum offered to the students may comprise theory and practical sessionals, project works (major and minor), field or industrial training, seminars, general proficiency (community services, participation in sports and games, etc.). The performance of the students in any of the above is primarily assessed on the basis of :

- i) University Examination which is summative evaluations at a terminal point.
- ii) Sessionals which is a formative assessment of the student based on teacher made tests and teacher observation records.
- iii) Viva-voce in which a student is orally assessed by a competent board of examiners to test the overall proficiency in the course taken by the student.

Out of above methods of evaluation, sessional is one such component of assessment scheme which should be based on the continuous internal assessment by the teacher in his subject right from the first lecture. It should also be based on day to day work very frequently. However it demands high sense of integrity, responsibility, sincerity and hard work from both the teachers and the taught. Awareness of a proper method of sessional assessment scheme helps improve the teaching learning process.

### 4. SESSIONAL SCHEME

While evaluating the achievement of students, generally emphasis is given to those learning outcomes which enable them

quick measurement rather than to assess the overall development of students. Precise measurement in education may be very difficult aspect for many teachers, students and administrators because of their unfamiliarity with the prescription of achievement levels and design of specific instructional objectives and evaluation instruments. However, if we identify the specific changes to be brought out in the behavior of learner in order to enable him perform specific tasks, teaching learning process becomes well defined. Any good assessment method should be able :

- i) To identify learning difficulties and deficiencies specially by tutoring the class and not by teaching.
- ii) To plan remedial instructions and reinforce students at right time.
- iii) To develop intrinsic motivations in students.
- iv) To provide immediate knowledge of the result.
- v) To develop mastery learning, an important point from view of technical education.
- vi) To provide emphasis on higher levels of learning.
- vii) To develop positive attitude towards learning.

All these parameters can be well taken care of during tutorials which form a part of curriculum. As such tutorial periods must be used for the ascertainment of students work by keeping a studious environment and keeping them busy in various additional activities like collection of data about latest development in the field. This may also allow student's scope for self thinking, self designing and self study. However in order to have a rational and unified evaluation of these characteristics, a sessional scheme based on same specific evaluation instruments should be devised. To avoid subjectivity and bring about uniformity it is proposed that the sessional should be based on following instruments/elements.

## ij] PERIODICAL EXAMINATIONS

In order to assess if the students are able to assimilate basic concepts and physical principles and have the ability to apply this knowledge, at least three periodical examinations should be conducted during a semester period of one hundred working days performance of any two periodicals may be considered for evaluation of sessional as per weightage assigned in teaching schedule of the University.

## ii] ASSIGNMENTS

In tutorial class, students should be given problems of each type relating to the concerned subject being taught. It will not only enable them to analyse a given problem but also initiate a thought process, enable them to organise the matter, data handling and a sense of responsibility and regularity to meet dead lines. For practical and drawing classes, these may be the practical reports and drawing sheets-work. To avoid copying of assignments different tutorial sheets may be prepared by the teacher.

## iii] QUIZ'S

These are the quickest methods to assess the knowledge of the concepts and principles, logical thinking to be applied in problem solving effort, additional knowledge acquired and their ability to analyse the given problem situation. The quiz element also enable the students to interact with problem on spot and give correct solution based on judgment.

## iv] SEMINARS

The students can be asked to deliver seminars on the topic which may be interdisciplinary. This enable them to review and survey important literature, suggest new ideas, enhance effective oral communication, self confidence, self-reliance and ability to create impression.

## v] GROUP DISCUSSION

In order to inculcate social sense and adaptability to practical situations, group discussions is the best available tool. In this activity students are exposed to various ideas relating to some subjects and to develop quality to convince others in a group or to

get convinced themselves based on facts brought out by group during discussion.

## vij] VIVA-VOCE

This is a quick method to assess students in depth. In viva-voce examination students are expected to interact with expert examiners or evaluators.

## vii] ATTENDANCE

Though attendance is a University requirement for a given curriculum yet it is not taken seriously now-a-days. However, to provide a proper learning situations to the students and to secure students in learning process is essential. It may be suggested here that for a subject minimum number of contact hours must be equal or more than 10 'n' where 'n' is the sum of L, T and P in a week. As such it must reflect in sessional marks to make attendance compulsory. It will help the teacher to keep a daily account of performance and behaviour of the student in the class.

Since project work is a special tutorial, same assessment procedure of sessional is applicable to the project.

## 5. SESSIONAL WEIGHTAGE/MATRIX

In order to award sessional marks a systematic procedure containing important elements/areas will have to be identified as discussed above. A minimum number of frequency of these activities with some weightage will have to be fixed in task of evaluation of sessional. Considering all the above aspects, the following weightage have been suggested for important elements in form a matrix that follows :

No	Elements	Frequency	Weightage
1	Periodical Exam.	2 to 3	50 %
2	Tutorials & assignments	Continuous	15 %
3	Quizes	Once a week	10 %
4	Seminar	1 per student/ semester	5 %
5	Group discussion	1 to 2	5 %
6	Viva-Voce	1 to 2	10 %
7	Attendance	Continuous (with minimum 10 n)	5 %

## 6. CONCLUSIONS

In order that our institution should produce engineers and not merely engineering graduates, there is a need for improvement not only in the curriculum but also in the method of assessment. A systematic procedure has been suggested in this paper which may be followed by all institutions offering engineering degree with constraints of teaching schedule, imposed by affiliate university. The advantages of proposed sessional evaluation techniques are manifold. It demands high sense of integrity, responsibility, sincerity and hardwork for both teachers and the taught by providing constant and continuous vigil on the performance of students. It will promote a spirit of healthy competition among students and really intelligent and capable students will be rewarded. It also provides an opportunity to shape his future himself and also provides a system of evaluation of teachers by students. In the

absence of proposed scheme on sessional evaluation there will be hardly any difference between an engineering college and a degree college offering graduate degrees in science subjects.

## 7. REFERENCES

1. Tidke.D.J. 'On improving the quality of Engineering education - The Quality Circle approach', Journal of /Engg. Education, Vol.2, No.1, Oct. 1988.
2. Pattanshetti. M.M. 'Master plan for curriculum development in Engg. College' Indian Journal of Technical Education, Vol.15, No.2, July-Dec, 1992.
3. Gupta, B.L., 'Appropriate method of Assessment', Indian Journal of Technical Education Vol.15, No.2, July-DEC 1992.
4. Sharma, S.C. and Jha, R., 'Organised field training for Students as a part of curriculum', The Journal of Engg. Education, Vol.6, No.3, 1993.

### ***To Our Readers***

The views and opinions expressed in this journal are those of individual authors. The contributors are not supposed to have the last word. Readers are welcome to join issues with them.

Our columns are as much open to you - The Readers - as They are to the contributors. Your communication should, however, be brief and to the point.

To stir the minds and initiate discussion is one of our aims, besides dissemination of knowledge.

**Editor.**