

CURRICULUM EVALUATION PROJECT FOR MADHYA PRADESH

Introduction

In 1972, a new curriculum for the Diploma course in Civil, Mechanical and Electrical Engineering was launched in most of the then existing 21 polytechnics in the State of Madhya Pradesh. The new curriculum was in many ways a radical departure from the old curriculum. It had been designed with the Educational Technology systems approach and was based upon an analysis of the needs of the industry. It described the curriculum content largely in terms of aims and behavioural objectives. It made use of the modern examining techniques and it contained guidance and support for teachers and students. In short it was an ambitious and innovative strategy to improve the quality of polytechnic education. Having involved many teachers, Heads of Departments, Principals and thousands of students in this process, it was inevitable that its evaluation should be desired both as a genuine need to monitor the quality of Diploma pass outs and as a necessary element of the systematic approach that has throughout been adopted.

The curriculum evaluation project was launched as soon as the first batch of students started coming out in 1975. As such it is very much a summative evaluation of the curricula in the state of Madhya Pradesh.

Aims

The objectives of the project were to

- Evolve a system for the continuous monitoring of polytechnics.
- Establish the relevance of the new curriculum to employers, teachers and students.
- Establish a system whereby the effectiveness of the new curriculum for all students can be observed.
- Assess the effectiveness of support material.
- Assess the effect of the new curriculum on the learning and teaching strategies and method adopted by the students and teachers.
- Assess the quality and acceptability of the examination system.
- Identify staff development needs.
- Identify resource needs for full implementation of the new curriculum.
- Identify other constraints.

Process

Curriculum Evaluation can be defined as the collection and provision of evidence on the basis of which decisions can be taken regarding feasibility, effectiveness and educational value of curricula. There are two distinct types of evaluation strategies; one is the scientific/research approach based on tests of achievement and behavioural criteria and the other is based on informed judgments resulting from observations, interviews, questionnaire and the like. The first strategy tends to be related to only those outcomes that can be objectively assessed, whereas the second strategy tends to be subjective. It is now generally accepted that a unique strategy for all evaluation studies is not possible. A hybrid strategy involving different techniques was used in the evaluation project.

The curriculum evaluation project had the involvement of five professors of the institute for a period of two years from initial planning to the preparation of the final report. The guidance of a British Consultant was available to the research team during various phases of the project. The development of the project took place in three phases.

- Phase - I Initial preparation for the evaluation
- Phase - II Development and trial testing of the evaluating instruments and collection of data
- Phase - III Collection and appraisal of data and its evaluation

The evaluation data were obtained from teachers (about 400), Heads of Departments, Principals, polytechnic students (about 800), employers, Board of Technical Education and NITTTR faculty on various aspects of curriculum.

The data were gathered in various ways, which included questionnaires, structured interviews, observations of teachers in class rooms and laboratories, and students tests, etc.

Outcomes

- A final report on the curriculum evaluation project was prepared which contained the findings. The report was sent to the Director of Technical Education, Madhya Pradesh and the Principals of Madhya Pradesh Polytechnics. The report was also circulated to various authorities in technical education in the country.
- Based on the findings of the evaluation report the curriculum revision process was started in the state of Madhya Pradesh.
- The polytechnics were provided extra resources for proper implementation of the new curriculum in Madhya Pradesh.
- Policy decisions on examination reforms, resource material generation and utilisation, staff development were taken by Madhya Pradesh authorities.
- The report generated interest in the State of Gujarat and a request for a similar evaluation project was received by NITTTR Bhopal. This evaluation was carried out and is reported in this document.
- Some states in the country got interested in the curriculum evaluation and took up similar exercises, though in a limited way.

The project provided a great opportunity for staff development to NITTTR faculty and others involved in the project.