

TECHNICAL TEACHERS TRAINING

* DR. M. NARAYANA RAO And

** DR. B. G. BARKI

1.0 INTRODUCTION

The country is poised to march towards the 21st century. Towards this end, amongst others is the need to harness the capabilities of the college going youth by providing them opportunities for getting the right type of education. Technical education is looked upon by the society to effectively cause social, economic, technical, academic and sometimes even cultural changes. Such changes can be expected to pave way for the progress of the society. Towards this end, educational institutions must make all efforts to offer socially relevant programmes. They must also be concerned about maintaining standards. An educational institution gets credibility also by the standard it maintains.

2.0 ROLE OF TEACHERS

Teachers play a vital role in the efforts of educational institutions at meeting the demands of the society by turning out educated employable young men and women. It was the Radhakrishnan Commission which highlighted the role of teachers by aptly saying that it is not the best curriculum, library, or laboratory that makes

an institution, but the type of teachers it has. The Kothari Commission came out very strongly in its very opening statement "the destiny of the country is being shaped by her classrooms". While it is satisfying to note the high pedestals on which Commissions have placed teachers, it is rather distressing to note that teachers have come in for very harsh criticism as being responsible largely for falling standards. They have been criticised as being disinterested, and unmotivated.

Teachers have made substantial contributions to the institutional development and have trained many high quality skilled students. Yet the following type of questions regarding the teachers are often heard in various corners.

What kind of teachers do we have?

How well are they equipped to teach?

How much do they influence their students?

What is that they teach for?

It is pertinent to observe that a question that is continued to be asked is why don't we have the type of teachers we had a few years ago. Of course, an answer eludes us.

* Principal ** Professor of Education

3.0 THE STATE OF THE ART

We must admit that we don't get many born teachers as the number of teachers required for our colleges is very large. We criticise all aspects of the work of a teacher - the way he teaches, the question papers he sets, the way he manages his resources. From where does he get a knowledge about these aspects? Can he learn the tricks of the trade through trial and error as he is doing at present? If this is continued, the cost one will have to pay is unimaginable.

Presently teaching profession does not occupy an exalted place. This is a global phenomena as evident from the findings of a Carnegie Foundation Survey (1994). This is because teaching methods adopted by teachers continue to be highly teacher dependent. Self learning as a never ending learning process is not adequately taught. The basic role of a teacher as a transmitter, transformer and a trainer continues. Restructuring of programs and courses is a continuous academic activity in the life horizon of an institution. Our technical teachers are required to be proactive to these changes.

4.0 TEACHER TRAINING

Training is a very important component of any activity. Teaching is no exception either and cannot be. Training through long term courses is a compulsory requirement for teaching at primary and secondary levels. Some training through short term courses is made a requirement for career development in technical institutions. Even then teachers by and large displayed reluctance to undergo training. By not

making training compulsory for teachers, the professionalism in teaching is eroded. The question that arises is what type of training. Is it a full time training such as the B.Ed.? What is now envisaged is a professional training which enables teachers to know the "know how" and "do how" of teaching. Let us not give a feeling that anybody can teach in a technical institution.

There is no system of providing for a systematic formal training of teachers of colleges and technical institutions. All that has been done for teachers of higher education is to organise a few orientation courses in the form of summer/winter schools. Even these summer/winter schools mostly concentrate on updating the content competencies of teachers. The skill component of teaching is given a go by. It is unfortunate that we have yet to realise that teaching like any profession can be effectively carried out only by trained professionals. Needless to stress that a trained teacher will be able to effectively plan, implement, manage and evaluate teaching-learning. He will be an efficient manager, planner, designer, evaluator, guide and researcher. Teacher Training must be made compulsory for all teachers at the higher education level.

5.0 TRAINING PHILOSOPHY

Any meaningful training of teaching personnel in all educational institutions in general and technical institution in particular should be based on certain guidelines. The following guidelines are suggested for designing the training programmes :

* Technical Education should aim at inculcation of efficacy - the capacity to control and harness the environment.

* Technical learning is not something that can be just transplanted on an individual whose primary and secondary education has not equipped him to shoulder the burden and to be worthy of the imperatives of technical learning.

* Falling standards of technical education require systematic analysis.

* Policy of recruitment of teachers who have a flair and ability to teach needs to be reiterated.

* Standards in technical education will tend to rise if there is competition for selection and the best teachers are selected and remunerated to match with what is obtained in the private sector.

Technical institutions have plans for further expansion to train larger number of students. The course offerings are being diversified to cope with the requirements of trained people in a variety of advanced and emerging areas on one hand and to increase the available options to the students on the other. Curricula of courses are often cast and recast to accommodate the latest theories and practices due to rapidly changing developments in science and technology. In order to meet the social pressures and aspirations of the disadvantaged sections of the society, special programmes are developed and offered to the under privileged, handicapped, women etc. different instructional methods, media and material and testing evaluation proce-

dures are being employed to motivate students for increased learning at their own pace and place through formal and nonformal programmes. Teachers are increasingly required to adopt professional management approaches for optimal utilisation of physical, fiscal and human resources and also introducing innovations for change for continual development. In view of these trends, the planners, administrators and teachers of today and tomorrow are obliged to play different roles such as professional managers, subject matter specialists, curriculum developers, method and media specialists, instructional material developers, testing and evaluation specialists and above all as resource persons to facilitate learning from teacher-centred instruction to resource-centred learning. These priorities which have never been felt before as intensely as we do now, would call for providing appropriate training to the in-service teachers and recruit trained teachers, in future.

6.0 CURRICULUM FOR TEACHER TRAINING

However in deciding the curriculum for a training course great care must be exercised to analyse the roles and functions of a college teacher and include such aspects. The curriculum must be functional. What the college teacher requires is an understanding of the techniques of management of resources, instructional techniques, procedures of evaluation, understanding the behaviour and the problems of students, the use of technology, elements of action research more than the philosophy of Education, comparative Education etc.

It is known that Educational Technology has made considerable contributions in making teaching 'economical' challenging and effective. Unless teachers are offered facilities for building up the learning resources the best training they receive may be fruitless. Would it be possible for making it mandatory for every college to have an Educational Media Centre/Educational Technology Cell which would provide facilities for teachers to develop their own aids?

Unfortunately, training of technical teachers at tertiary and higher education levels has not yet been considered essential, although, a lot of importance is being given to prepare teachers for school education. There is therefore an urgent need for a policy direction to provide training to serving teachers through in-service and continuing education programmes and to recruit teachers, duly trained through pre-service programmes.

7.0 INSERVICE PROGRAMMES

The inservice programmes suggested are :

- * Long term training programmes of durations varying between 3 months to 10 months at different levels to cover different categories of teachers.

- * Orientation courses of duration ranging from 2 to 4 weeks for freshly recruited teachers to provide experiencing aspects of planning, delivering, and evaluating instruction.

- * Self instructional learning packages (through open Learning mode) on various components of teacher training.

- * Modular programmes in teacher training.

- * Short courses and workshops of

1-4 weeks duration in important areas including subject updating.

The objectives of long term training programmes could be to develop competencies in

- * instructional planning for developing performance objectives, preparing instructional plans, designing instructional materials and selecting appropriate media.

- * instructional execution for developing relevant knowledge, skill and abilities in students through the use of appropriate methods.

- * evaluation for assessing students' performance in the class, laboratory and project work through structured continuous and end examination schemes.

- * management for preparing institutional development plans, utilising institutional resources optimally and guiding students in their curricular and extra curricular activities.

- * understanding modern trends and latest developments in industrial/educational processes and practices.

Arrangements must be made for inservice training and orientation of teachers for it is they who form the delivery system of the educational programme and unless they begin to appreciate and absorb the new thinking, their goal perception and role perception is bound to remain dim.

8.0 QUALITY IMPROVEMENT PROGRAMMES

Under the Quality Improvement Programme of Government of India, there is a provision for college teachers

to improve their qualifications by joining post-graduate and doctoral programmes and undergo industrial training for a period of 3 months. Several short courses and workshops, sponsored by Indian Society for Technical Education and QIP centres are being conducted in selected areas by selected colleges. It may however be seen that many of these programmes are oriented either to improve the qualification through long term programmes or enrichment of subject matter through short courses. Opportunities for exposure to Curriculum, Design and Development, Instructional Methods, Media and Techniques, Testing and Evaluation Procedures, Educational Management and Administration are almost nil. This is due to non-recognition of the fact that competence in teaching is as important as subject matter competence. The earlier it is recognised, the better for further improvement in the quality of instruction in technical education. The best way of preparing college teachers seems to be offering a 3 year integrated course leading to an award of Post-graduate degree in engineering and education. First class or high second class gradu-

ates in engineering/technology will have to be admitted to this programme. The curricula of the course may comprise a major component of subject matter in the concerned area of specialisation followed by industrial training, pedagogical training and teaching practice. The teachers already in position may be required to undergo 8 to 12 weeks orientation programmes specially designed to cover the areas referred to above.

9.0 CONCLUSION

This paper has discussed the need for training inservice teachers of technical institutions. Training of these teachers must enable them to acquire the Know how and Do how of teaching in order that they may carry out various roles assigned to them. Training methodologies must focus on user friendly approaches to enable teachers to make teaching resource centred. Training programmes suggested are both long term and short term. The need of the hour is to design suitable training programmes and implement them to suit the needs of the variety of staff in institutions.

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