



Research Article

NEED OF CENTRALIZED DATA ANALYSIS AND RESEARCH ON TECHNICAL EDUCATION IN INDIA

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ABSTRACT

Many researchers have suggested revamping of technical education in India. Here I discussed the need of centralized data analysis and research, which can be used to monitor, up to date data bases related to all aspects of technical education including curriculum, research in engineering and technology, employment and employability, vacant seats syndrome and leadership analysis, which will improve quality of technical education.

Key words:

Technical education, centralized data analysis and research.

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INTRODUCTION

Many researchers have expressed serious concerns about technical education in India and suggested solutions also. I suggest a need of centralized data analysis and research on technical education.

Up to date data

There should be year wise, discipline wise and region wise up to date data of certificate and diploma holders, graduates, masters and Ph.Ds in engineering and technology, passed out from aided or unaided institute, employed, unemployed, gone abroad for higher education or job etc. with country wise details. This data should be comprehensive; consisting of age, gender, social and economic status and so on. This is of utmost important in planning and policy making. The constant analysis of number of skilled workers, technicians, engineers and super engineers needed for industry, academia, government and semi-government organizations will be helpful to monitor the technical work force. According to All India Council for Technical Education (AICTE) survey 66% of the technical graduates in the country are unemployed (or unemployable). This occurred in spite of various regulatory bodies and AICTE itself. The comprehensive analysis and research on the data bases can help in corrective measures for this.

Monitoring

In 2015-16, across the country, of the total 18,07,091 seats in

professional technical institutes, 8,63,079 seats could not be filled. In states like Uttar Pradesh, Andhra Pradesh and Maharashtra, close to 50% seats remain vacant. In some states like Chhattisgarh, Bihar, Assam, Madhya Pradesh, Himachal Pradesh, Haryana, Odisha and Uttarakhand more seats went vacant than the ones that were filled.² There are many reasons for this; such as more choices available for students, wrong geographic location of new institutes, lack of market study before starting new disciplines, increase in capacity, lack of reputation or infrastructure at the new institute and so on. One of the probable reasons of this 'vacant seats syndrome' is lack of data analysis and monitoring before permitting new courses or institutes or increase in capacity. The wastage of human and infrastructural resources associated with this vacant seats syndrome is a problem of national concern; apart from imbalance of balance sheet of unaided institutes.

Curriculum

There should be thorough research on the design of curriculum. Apart from standard portion there should be some component related to local problems. India, being almost a continent, wide variety of problems are waiting to be solved. Depending upon geographical location of the technical institute, the appropriate basic technical syllabus can be included. For example, constant drought area, hilly region, desert area, over crowded cities and so on. The proper attention should be paid towards the due freedom to the teachers and examiners in the teaching-assessing process in this local component syllabus.

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Research in Engineering and Technology

After careful study of research done in engineering and technology at the master and Ph.D. level, thrust area for future research should be identified. The problems of socio-economic and national importance should be given priority. It is ridiculous to expect somebody else will solve our problems. The hundreds are problems are waiting for solution. For example, in city like Mumbai; garbage disposal, plastic menace, pollution, traffic horror, local train transport have reached at intolerable levels. In many areas engineering and technology solutions are awaited. For example, health, cheap and rapid mass transportation, drinking water, food processing and storage, alternative sustainable energy sources, defence related problems, agriculture related problems, rain harvesting and so on. There is no dearth of talent, only systematic and carefully planned approach is needed.

Employment and employ ability

As mentioned above, unemployment and unemployability is one of the serious concerns. Its root causes should be analysed and corrective measures should be searched for. The detailed study of current trends in global industry and its impact on Indian industry will help our technical work force to go for better opportunities. Our technical institutes should be nimble and change rapidly in response to the changing environment. For example, when markets stagnate or foreign operations are restricted, recruitment will be badly affected and for survival industry will shift its focus. The technical institutes should change accordingly. A lot of research is needed on this.

Research on leadership

The critical analysis and research on credentials of decision making people at state and central level, impact and implications of their decisions on technical education is also very important. Only visionary and intellectually superior people can steer the technical education in right direction. All these processes should be centralized with permanent and deputed staff having eminent educationist at the helm.

CONCLUSION

There is a need of centralized data analysis and research to improve technical education in India. Discipline wise, year wise, region wise and socio-economic up to date data, its analysis and research on various aspects of technical education such as monitoring of vacant and filled seats, curriculum, employment and employability, research in engineering and technology, leadership will help to develop corrective measures for various problems in technical education.

Reference

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2. *Times of India*, Mumbai Edition, 10 March 2016.

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