Belief And Role Of A Teacher: In Enhancing Research Thinking Among The Students

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Abstract: Arthur Combs says that "Perhaps the most important single cause of a person's success or failure educationally has to do with the question of what he believes about himself." The belief of a teacher will change the nation. It begins with an overview of traditional research on teaching in general, followed by a discussion of teacher cognition under which teacher beliefs are subsumed. The general chalk and talk does not make students involve into practical applications or research activities, the belief of teacher about research should change and pedagogies to be implemented in the class room to create interest among students about how to start research from their undergraduate life. Now a days the research on teaching and learning has shifted from a unidirectional emphasis on correlates of observable teacher behaviour with student Achievement to a focus on teachers' thinking, beliefs, planning and decision-making processes.

This paper explains the change in the teacher thinking and role of a teacher in the implementation of research in the higher educational institutions and impact on the students and their involvement in the research activities.

Key words: Teacher, role, beliefs, pedagogies, research, higher educational institutions.

1. INTRODUCTION

The first thing that comes to the mind of a teacher about research is, is research level explanation in the class room is required for a student? The belief of a teacher is the conceptual explanation is sufficient rather than practical knowledge sharing. The confusion, however, generally centres on the distinction between beliefs and knowledge [3].

From earlier days the involvement of students into research is very less due to: 1) Lack of awareness of the students on the research 2) Less number of teachers into research activities 3) Time factor 4) Fear of research 5) Facilities 6) Financial support 7) Lack of technical knowledge etc.

Teachers' support to motivate students to enhance the research thinking can be classified into three different types:
(1) Role of teacher in motivating students
(2) Teachers' interactive thoughts and decisions sharing with the students
(3) Practical knowledge to the students

1.1 Where the teacher fails: Due to lack of time the teacher concentrates more on syllabus coverage rather than research oriented teaching. Most of them are traditional teachers who never work on innovative pedagogies. The teacher thinking should change

1.2 Role of OBE in enhancing Research:

Outcome-based education is an approach to education as well as a type of learning process wherein decisions about the curriculum are driven by the exit learning outcomes that the students should display at the end of the course (Davis, 2003; Caguitla, et.al 2013). Spady (1994) stated that outcome-based education is designed so that all students are equipped with the knowledge, skills and qualities needed to be successful after they exit the educational system. In this system, students can excel with their own interest and acquired knowledge in different ways in no particular time.

1.3 Technology to enhance research:

Each of us probably has different perceptions of what "access to learning" means, although most will agree that it means making education more attainable by more people: that is, providing educational opportunities in the colleges, office, or home, for those unable to attend school or college

because of cultural, economic, or social barriers. Technology is helpful for all to access the data happening in the whole world with a single click.

2. SURVEY CONDUCTED ON TEACHER COGNITION:

The survey was conducted for a sample size of 92 experienced faculties in Hyderabad Institute of Technology and Management , to create awareness among faculty and to know their perception towards research.

The questionnaire on survey was:

1) What is research?
2) How to implement research in the higher educational institutions?
3) What is your role to enhance research activities in the Institution?
4) Is Research required/important for student's career?
5) How to motivate students to involve into research?
6) Do you think research is only for PhD scholars?
7) Can you implement various innovative pedagogies to promote research level thinking among the students?
8) How research helps in new innovation?
9) Do you think research is necessary in the engineering curriculum?
10) What is the first and foremost step to start research?

Above is the questionnaire given to 92 experienced faculty in the institution and the report is given in the below figure 1.

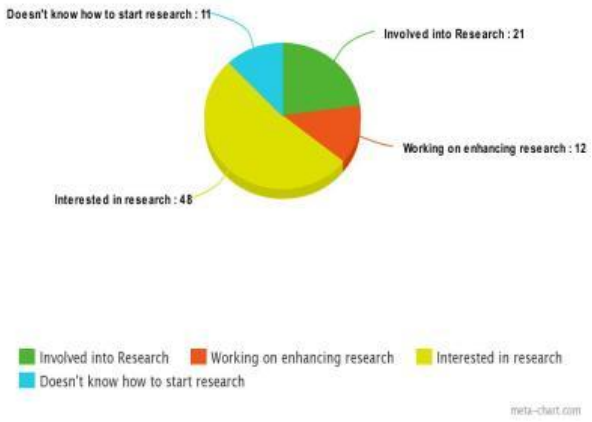

Figure 1: Report on the survey conducted in the institution.

3. INVOLVING STUDENTS INTO RESEARCH

3.1 Labs: Students can start their Research work from their Laboratory sessions. With the initial practical experience students can build small circuits and start implementing their thoughts.

3.2 Attending workshops & Conferences: Teacher should train and motivate students to attend various workshops and conferences to gain knowledge and exposure towards research.

3.3 Paper Publications: Students should be trained to work on writing a paper like how to write abstract, methodology, summary and how do to literature survey etc.

4. FACTORS ENHANCING RESEARCH IN THE INSTITUTION

4.1 Institutional support to enhance research activities:

Institution should provide financial assistance to the students and the faculty to attend workshops and conference. Incentives when faculty/students publish a paper will motivate them to work hard to enhance research activities in the institution.

4.2 Research Lab:

Research Lab should be established in higher educational Institutions to promote research activities. International journals and articles should be placed in the labs which give more information to the students and faculty on current trends.

4.3 Curriculum to be changed: Many of the Universities have involved subjects related to the society in engineering study like Environmental Science, Gender Sensitization etc. Similarly Research Methodology should also be included in the curriculum which can help students to get awareness on how to start research? [8].

4.4 Internships: Internships in the government/industries will improve technical skills among the students and make them work on research and also helps them for their higher education.

5. STUDENT EXPOSURE TOWARDS FINANCIAL SUPPORT FROM EXTERNAL SOURCE

Kudos to Government of India for providing various schemes to enhance research and development activities. Teachers should create awareness about these schemes and motivate them to work towards research. Some of the schemes are given below:

5.1 Department of Scientific and Industrial Research (DSIR): Government of India is supporting student entrepreneurs and also supporting students by giving funds to their projects with innovative ideas. Under DSIR there are many schemes like TePP (techno Preneur Promotion program), Micro Technopreneurship Support (TS) where the support from 50,000 to 10 Lakhs is given.

5.2 University Grants Commission (UGC): To promote excellence in research in higher education by supporting research programs of the University and College teachers in various disciplines. Traditionally, universities have been the centers of research. Although, the Government has a network of science and technology laboratories for research and development, the major base of researchers in science and technology remains with the universities. Therefore, university and college teachers need to be supported to meet this requirement.

5.3 Information Technology Researh Academy (ITRA): IT Research Academy (ITRA) is a National Programme initiated by Ministry of Electronics and Information Technology (MeitY), Ministry of Communications and Information Technology (MCIT), Government of India, aimed at building a national resource for advancing the quality and quantity of R&D in Information and Communications Technologies and Electronics (IT) and its applications at a steadily growing number of academic and research institutions, while strengthening academic culture of IT based problem solving and societal development.

There are so many schemes from AICTE, DRDO, DST, SERB and so on to provide financial support to the teacher and student.

6. CONCLUSION

Research importance is very less in the undergraduate programs. Awareness should be created among the students about research and the role of research in their education. Perusing a research/ working on a research project will be a challenging & rewarding experience, this opportunity enables to pursue an in depth original study about a topic of interest, it leads to expansion of knowledge, improving communication skills, amplify the way we mediate & also nourishment & exercise for the mind. It is a mirror process [8]. Students in the direction of research will be benefited in their career to become a successful individual. This paper concludes that the teacher thinking should be changed and teacher should play major role in enhancing research and development activities in the institution. They should create awareness and research importance for a student. The details of financial assistance from various funding agencies should be shared with the students to become a successful entrepreneur.

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