

INCORPORATING RESEARCH IN UNDERGRADUATE CURRICULUM

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Abstract

From Kothari commission to Yash pal commission, a lot of recommendations and suggestions have taken place to improve higher education. Still a lot has to be implemented and achieved in order to improve the quality of education. Incorporating research as a curriculum enables students to develop independent critical thinking skills along with oral and written communication. The objectives of the paper are to understand the benefits of incorporating research as a curriculum in undergraduate course, to know the awareness level of students regarding research and to know the factors creating interest for research among students. This paper is based on both primary and secondary data. Primary data was collected from 40 postgraduate students through scheduled questionnaire. Secondary data was collected from various journal, books and websites. Pie charts, bar diagrams and tables are used. The study reveals the various benefits to students in implementing research in the curriculum. With the introduction of credit based semester system implementing research as one of the optional subject in the sixth

Key words:

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Strategies

INTRODUCTION: Higher education in India is one of the largest and oldest system found anywhere in the world. The national policy on education set up in 1986 visualises that higher education should be

dynamic and included strengthening research as one of its important features. In 1998, the Boyer Commission report recommended that engaging students in research in introductory courses would increase

students' interest in science, technology, engineering, and mathematics (STEM)-related fields and that research skills and competencies could be developed in subsequent years so that graduating seniors would be able to easily transition into advanced jobs and careers. The same can be extended to language and humanities subject. Curriculum is a plan or document that an educational institution uses to define what will be taught and the methods that will be used to educate and assess students. The word Research is made up by adding "Re" as prefix to the word "search" Search is to make known of an existent unknown thing. Therefore research is to elicit some facts out of a known thing. Research is an attitude of inquiry, essentially a state of mind welcoming attitude towards change. Incorporating research as a curriculum enables students to develop independent critical thinking skills along with oral and written communications. Developing skills in critical thinking and communication will allow students to emerge as leaders in multiple professions after graduations. Studies reveal that students who have opportunities to engage in undergraduate research have significantly better learning outcomes than students without those opportunities. It helps them to prepare for professional. Students learn problem-solving skills that are beyond the classroom or laboratory. W. Haque & K. Alagarsamy in their paper titled "Effectiveness of Research Modules in Undergraduate Curriculum." Mention about the positive outcomes of research in undergraduate level such as better prepared students, enhanced presentation skills, group experience, applied

research with industrial collaboration and a much broader coverage of the areas. They have also observed that inclusion of such research modules plays a significant role in the students' perception of the subject matter and greatly enhances their ability to pursue a more focused research area. The benefits of incorporating research in curriculum can be classified into academic and non-academic benefits.

Academic benefits are as follows:

- understanding the research process
- understanding how scientists work on problems
- learning lab techniques
- developing skills in interpretation of results
- ability to analyze data

Non-academic benefits are as follows:

- having tolerance for obstacles
- learning to work independently
- understanding how knowledge is constructed
- self confidence
- clarity in career path

Incorporating research in undergraduate curriculum would be collaborative approach. It is related to cooperative learning where the role of teacher as expert transmitters of knowledge to students is less and is more of expert designers of intellectual experiences for students. Dr Simone Krüger, in his paper "Embedding Student Research in the Undergraduate Curriculum: Learning in the Field" is of the view that Undergraduate research is beneficial, as it is

student-focused by increasing student engagement, participation and inquiry, and it emphasises both epistemological and ontological aspects. Making discoveries and developing curiosity that may have practical, real-life applications constitutes important value. Students' engagement in the total learning process in the research field can lead to deeper-level and long-lasting learning, whilst fostering independent and collaborative working abilities, as well as the ability to handle vagueness. By combining undergraduate research with formative and summative outcomes of course assessments, it can help students to organise and develop more creative thinking, foster more sophisticated levels of intellectual development, and gain confidence in their own intellectual abilities, perhaps leading them to continue their education beyond their undergraduate degree. Presentations of research results can lead to improved oral and written communication skills, making students more competitive for employment. Research is essential tool for good decision making. The task of educational research is to provide information essential for good decision making. Importantly, students who engage in research often develop a quest for new knowledge by asking important questions about the world around them, and, in turn, gaining a sense of solidarity and compassion for the people they encounter.

OBJECTIVES OF THE STUDY

- ▣ To understand the benefits of incorporating research as a curriculum in undergraduate course
- ▣ To know the awareness level of students regarding research
- ▣ The factors creating interest for research among students.

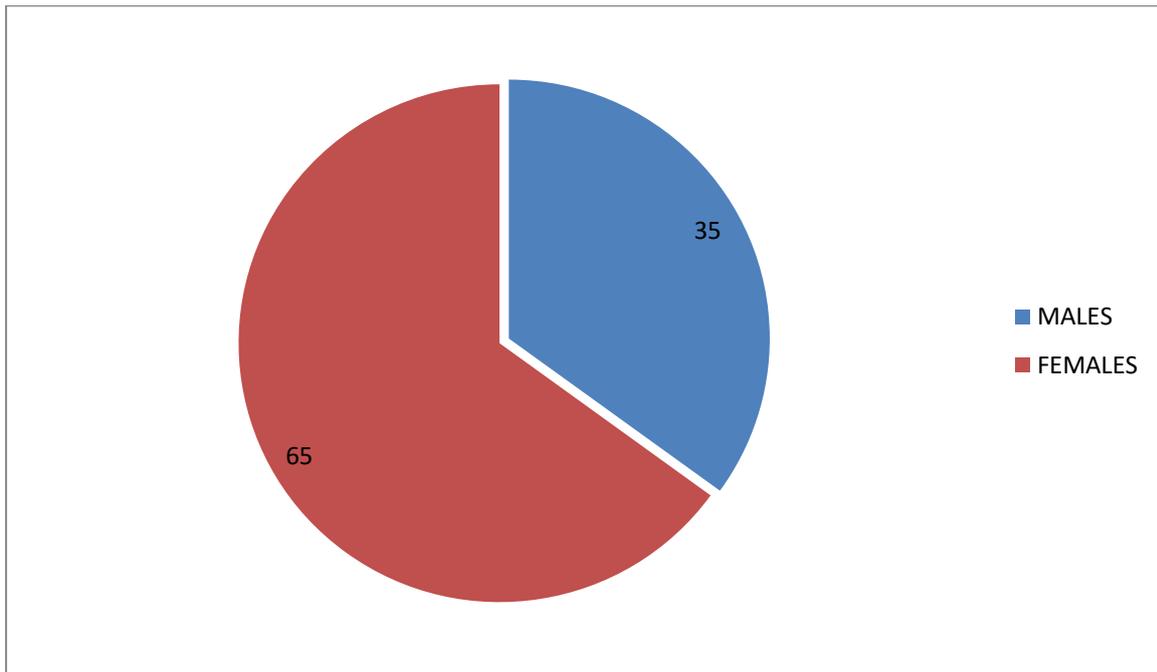
METHODOLOGY:

This paper is based on both primary and secondary data. Primary data was collected from 40 postgraduate students through scheduled questionnaire. Secondary data was collected from various journals, books and websites. Pie charts, bar diagrams and tables are used.

FINDINGS AND ANALYSIS OF DATA

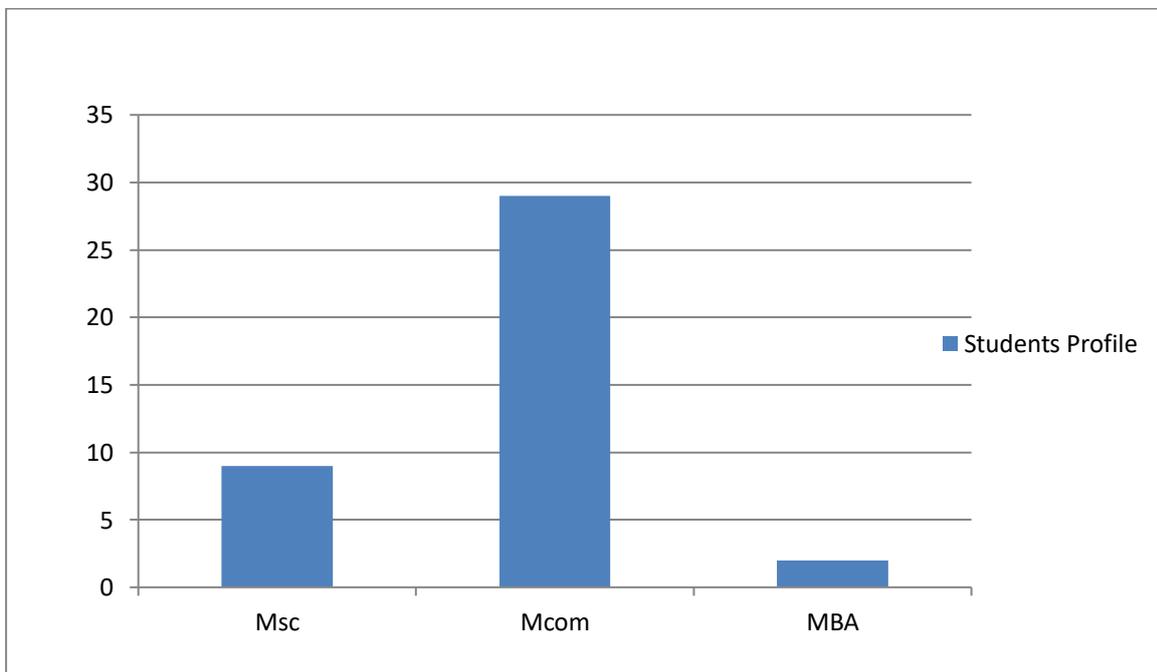
A survey was conducted among 40 Post graduate students of Poornaprajna College to understand their views regarding implementation of research in undergraduate curriculum. The survey comprised of 14 male and 26 female students out of which 34 were second year students and six were first year students. Students pursuing M.Sc, M .Com and MBA were taken into study.

Chart 1: Pie chart indicating Percentage of male and female student’s respondents



Source: primary data

Chart 2 :Bar Diagram Indicating students Profile



Source: primary data

72.5% of respondents were of the opinion that research should be incorporated in undergraduate curriculum for the following reasons

- “It will improve the knowledge about the subject and understand more”
- “To improve analysis potential in students”
- “To understand the topic correctly”
- “It will help lot to the students. They get extra knowledge”
- “It helps them in their job career ”
- “Because they will be getting only the knowledge about the book”
- “To get some practical exposure other than syllabus”
- “It will be helpful in PG Studies”
- “In order to know the practical output”
- “In order to know the practical applicability of subjects”
- “It gives the idea of self study and improves knowledge. Also it makes degree a serious study”
- “Because to know more information about society”
- “Because it will help in future research studies in post graduation”

OTHER FINDINGS: Seventy five percent of respondents wear interested in taking research. 84.6% of females and 50% of males were interested in taking research activity after post graduation.95% of respondents are of the opinion that incorporating research in undergraduate curriculum will improve the quality of education. The survey also revealed

that the role of teacher (62.5%)is also important in creating research interest among the students followed by the concerned subject.(27.5%).

LIMITATIONS OF STUDY

- ☐ Sample size is small
- ☐ The study is limited to only postgraduate students.

SOME STRATEGIES FOR INCORPORATING RESEARCH INTO THE CURRICULUM

1. Building assessments that include students developing research skills (i.e., literature reviews, critically reading articles, publishing in collage magazine or to a publicly accessible site)
2. Being inclusive and involving undergraduate students in research seminars, guest speakers and symposia.
3. Making use of internships or real-world opportunities
4. Conducting a class project where data is collected from various groups and analyzed together and
5. The choice of textbook or readings is fundamentally important to incorporating research into teaching.

CHALLENGES TO IMPLEMENTATION

1. Diversity of student ability
2. Difficulties in incorporating aspects of research-led teaching into large class sizes

SUGGESTIONS

1. An in depth study can be undertaken as minor project and submitted to UGC.
2. Since the study is limited to only Post graduate students, the same can be extended to undergraduate level.

CONCLUSION : The study reveals the various benefits to students in implementing research in the curriculum. Research in undergraduate level is required to foster deeper understanding and passion their respective field of study. As educators it is important to find ways to incorporate research in undergraduate curriculum to prepare future teachers to effectively teach the next generation of students. Students must be provided with inquiry based, meaningful and constructive learning experience. Incorporating research in undergraduate curriculum would be collaborative approach. It is related to cooperative learning where the role of teacher as expert transmitters of knowledge to students is less and is more of expert designers of intellectual experiences for students .With the introduction of credit based semester system implementing research as one of the optional subject in the sixth semester of undergraduate curriculum can be done by universities as it is already practiced in some autonomous colleges. Undergraduate research will improve employability; decreases graduate “skills gap” and students understanding employer expectations.

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