



## IMPORTANCE OF RESEARCH

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### Abstract

In academia, both the faculty and the students are challenged to embrace engaged learning experiences and evidence-based education through undergraduate research. It is well known that, research is in shambles in universities and colleges. The divinity of fortune smiled on sycophants. The solution to this academic malady does not lie in separating research from teaching at the undergraduate level. The purpose of research is to inform action. Thus, your study should seek to contextualize its findings within the larger body of research. It must always be of high quality in order to produce knowledge that is applicable outside of the research setting. Good research offers solution to a problem, an answer to a good question and contributes to our knowledge of the world. Research should be at the core and must be instrumental in generating a major interface with the academic and business world. The undergraduate research experience is one of several experiences that can impact the future career choices of our undergraduate students. It is essential to establish labs of current technologies in the Engineering departments of colleges and universities. The knowledge of economy identifies knowledge as the most important form of capital and university research is one of the most important sources of new knowledge. Any research intensive university works hard to attract the very best and most talented educators and researchers in order to maintain its position. More research skills and sources will be able to gain more facts and above all different research sources offer different kind of information to

understand the topic and present the findings. Research draws its power from the fact that it is empirical rather than merely theorizing about what might be effective or what could work, researchers go out into the field and design studies that give policymakers hard data on which they can base their directions.

**Keywords:** Academic, research, Knowledge, instrumental, experience, Universities, empirical & policymakers

In academia, both the faculty and the students are challenged to embrace engaged learning experiences and evidence-based education through undergraduate research. This allows students to develop professionally and personally in ways not possible through traditional lecture and laboratory courses. The benefit of the good research involves more fact corroboration, more facts, larger frame of understanding and gain knowledge quickly. Universities have been serving society for many years and over that period universities have undergone significant transformation. Research is important because it gives direction to deal with a specific problem. Undoubtedly next to Governmental researches, Educational & institutional researches are more valuable. The educational researches are the ones that happen through doctoral programs offered by the Universities and the researches have become a part and parcel of multinational organizations.



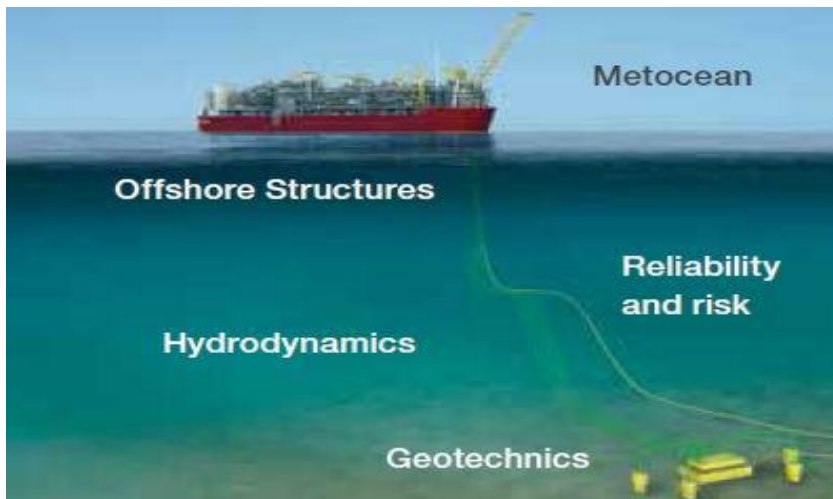


Research oriented studies are crucial in colleges and universities to explore the talent. It is well known that, research is in shambles in universities and colleges. The divinity of fortune smiled on sycophants. The solution to this academic malady does not lie in separating research from teaching at the undergraduate level. Most Universities and colleges offer their science majors the opportunity to gain some sort of research experience. Some have a formal process for placing undergraduate majors in research labs, but the best approach is to find a professor whose work you're interested in and approach him or her directly. The purpose of research is to inform action. Thus, your study should seek to contextualize its findings within the larger body of research. It must always be of high quality in order to produce knowledge that is applicable outside of the research setting. A good starting point to initiate, raise and improve the culture of research in colleges and universities both for faculty and students would be to ask few fundamental questions such as what are the objectives of research , how does good research contribute to class room teaching? Until we answer these rudimentary questions, we cannot appreciate the invaluable role that research plays in teaching.

The aim of education in general and research in particular is to cultivate a spirit of enquiry in students, to enable them to ask pertinent and uncomfortable questions related to their discipline, society, identity and nation. Good research offers solution to a problem, an answer to a good question and contributes to our knowledge of the world. If we will not orient our students towards research and original ideas during graduate and post graduate levels and suddenly exhort them to come up with new ideas and perspectives for their MPhil and PhD, they are bound to fail miserably.



The need of the hour, therefore, is to promote research both for students and teachers from the college level itself so as to orient the gradually toward knowledge production. Research should be at the core and must be instrumental in generating a major interface with the academic and business world. The undergraduate research experience is one of several experiences that can impact the future career choices of our undergraduate students. Research opportunities aren't limited to your home academic institution. Research is an important theme that threads its way through the undergraduate experience from the first year to graduation. Research experiences give students an opportunity to gain a deeper knowledge of research techniques and processes, apply classroom learning in real-world contexts, explore academic literature, and form meaningful relationships with faculty members and professional researchers. Pursuing a research project will be a challenging and rewarding experience, and this opportunity enables a student to pursue and in-depth original study about a topic of interest. Before describing how to do the research, it is important that the prospective researcher be aware of the ethical aspects and apply appropriate ethics. There are four criteria that to be followed, (1) be objective, (2) avoid conducting harmful research, (3) Use integrity in conducting and reporting the research and (4) protect confidentiality.



Developing and maintaining undergraduate research programmes benefits students, faculty mentors, and the university. Needless to say that the research process impacts valuable learning objectives that have lasting influence as undergraduates prepare for professional service. In India the technical education institutes realize the immediate need to bridge the gap between the institute and industry needs and the students must be aware of the latest technology. Incorporating a research component along with a sound academic foundation enables students to develop independent critical thinking skills along with oral and written communication skills. Independent thinking can instill in the undergraduate student the confidence to form one's own conclusion based on available evidence.



It is necessary to include research curriculum with the following items:

1. Understanding the research process.
2. Understanding how scientist work on problems
3. Learning lab techniques
4. Developing skills in the interpretation of results
5. The ability to analyze data
6. The ability to integrate theory and practice.
7. Use of Library resources

It is essential to establish labs of current technologies in the Engineering departments of colleges and universities. It is learnt that many universities have an Undergraduate Research Office (URO) that provides small stipend for the students to travel and present research, so that students are willing to present at regional or national conferences, but many do not have the funds for travel and registration to present their research.

The results of the research study may have implications for policy and future project implementation. The knowledge of economy identifies knowledge as the most important form of capital and university research is one of the most important sources of new



knowledge. Another important role for the research intensive universities is to help position the standards and benchmarks for research quality. Any research intensive university works hard to attract the very best and most talented educators and researchers in order to maintain its position. In the present society research studies are gaining an unprecedented focus and attention and research methodology offers solution to the problem effectively. It is more important that the research question posed by the researcher and the methodology that he adopts to get solutions is the most valuable part of the research work. Time, money and patience could be greatest constraints for a researcher. A research enthusiast must overcome these barriers and get head along involved in the work.

A great wonder is how craft knowledge of teaching is generated and disseminated in Japan; Hidenori Fujita examines features of the organization of schooling and teaching in Japan and strategies for connecting research and practice that most likely contribute to the relatively high performance of Japanese students that is frequently found in international comparisons. He discusses three features of Japanese education that are relevant to the use of systematic evidence in the practice of education: 1. Centralized decision making for education policies and practices, 2. The greater prestige, pay, and training of teachers, and 3. The many institutional mechanisms for practitioner and researcher interaction. The most important economic and social contributions of universities arise from the movement of their graduates into the broader workplace, taking with them and applying the knowledge, skills and attitudes the university helped to instill and from the direct and indirect application of the research of the universities perform and the transfer of information technology to other sectors, domestic and international. A university having a strong research base and international reputation can also draw in funds from far outside its own region.





Oftentimes, by discussing the research project with advisers and peers, one will find that new research questions need to be added, variables need to be omitted and other changes need to be made. It is important to examine study methods and data from different viewpoints to ensure a comprehensive approach to the research question. The main benefit of attending a university with strong research binds is the possible for high quality thesis projects throughout education particularly for a Master's level student. Students who work alongside professors for research work, learning side-by-side as partners while students are given the unique chance to become researchers themselves. These experiences are invaluable and no doubt boost employability long after graduation. The openness of universities adds to the vibrancy of the society and cultures within which the universities exist by providing a safe environment for promoting creativity, questioning and the freedom to try new things. It enables universities to act as independent critics of society and helps them provide an environment that allows ideas and technologies to ripe.

Why research important?





- Without research, a relevant and modern curriculum does not exist.
- It's an opportunity to make a difference and open to everyone and thrives on a diversity of approaches and perspectives.
- Research promote the growth of professional excellence in faculty, important for extraditing outstanding student education and training.
- When our next/young generation engage in research with its careful process and requirements for critical thinking skills, they become better students and are best prepared for the challenges and opportunities for the future.
- Mainly research discovers, enlighten and evaluates new knowledge, ideas and the technologies essential in driving the future of society and humanity.

One of the important roles of universities has been to make the changes possible. By educating a greater proportion of the population and broadening its perspectives by performing research that creates new understanding, new technologies and the potential for action and by providing a store of knowledge and capabilities that society as a whole has been able to draw upon. Research has enabled significant progress to be made in curriculum development, reform in adapting methods of instruction to the needs. It contributes immeasurably to our understanding of different culture and the impact of culture values, attitudes, ideals, personality development and human behavior. Research is needed to help to explore further the potential effects of decentralization. In our technological society where each sex is expected to fulfill multiple roles and promote the goal of equal rights for the development of strong concepts of self for both women and girls. Teachers can influence and affect a large number of students in tremendously positive ways. Indeed, giving students the thirst for



knowledge to the point that they want to not just consume existing knowledge but make discoveries themselves is a unique opportunity that an educator can impart. Certainly, developing smart young students into the researchers of current and future generations is yet another way that a faculty efforts in the classroom can pay long-term dividends for research. Needless to say that the ethos and practice of a university is meritocratic. Universities are not simple tools of social engineering or drivers of economic growth although their influence is essential for sustained social and economic development. Universities have the autonomy and freedom needed to pursue ideas and research, no matter where they might lead and without constraints set by the need for immediate usefulness or quick results.

### **Conclusion:**

Research is important whether we love or hate it, we need to do it. Finding out the facts is more important than merely submitting the assignments. Research will allow the researcher to make better decisions and gain more knowledge. In fact more research we do, will benefit for the society and life. More research skills and sources will be able to gain more facts and above all different research sources offer different kind of information to understand the topic and present the findings. Research draws its power from the fact that it is empirical rather than merely theorizing about what might be effective or what could work, researchers go out into the field and design studies that give policymakers hard data on which they can base their directions. There is no one formula for developing a successful study, but it is important to realize that the research process is cyclical and iterative. Above all, it is important to say that, researchers work as a team to enhance their knowledge of how to best address the problems. It is clear that universities produce many significant benefits to society as a whole, the status of universities has changed. Ultimately, research is essential to economic and social development of our globalized society,



forming the foundations governmental policies around the world. Research should be future oriented and designed to benefit learners rather than the researchers themselves. It helps the faculties share with colleagues.

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