

Best Practices

1: Student Mentoring and Guidance

2: Integrated Education and Research

Best Practice 1: Student Mentoring and Guidance

Objectives:

- To identify problem areas for individual students whether it be academic, personal or psychological.
- While helping them in their academic deficiencies, referring them to appropriate service areas within the university such as student services will help them in personal endeavors.

Context:

- The primary challenge in implementing these kinds of measures is the buy-in of the student themselves and their willingness and courage to acknowledge their own problems.
- The commitment of the faculty involved in empathizing with the issues faced by the student and to design appropriate measures to overcome such deficiencies.

Practice:

- The practice involves the student actually spending an extended period of time in a research project, working under a supervisor, which is then forwarded to our institute and is awarded a grade based on their performance.
- In certain cases, the students are shown training facilities on industry trips as a part of their learning exercise (Water purification plant, Milk dairy, Sewage treatment plant)

Evidence of Success:

- The success rate of our graduating students in every discipline in obtaining either local or internal employment is truly indicative of the institute's recognition of the practical talent already imparted, in addition to the theoretical constructs of the classroom.

Problems Encountered and Resources Required:

- The main constraint we are faced is the limited time within the context of the working hours.



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Best Practice 2: Integrated Education and Research

Objectives:

The objectives of the best practice of Integrating Education and Research are

- To develop problem-solving, critical thinking and learning - to - learn skills among the students
- To augment interdisciplinary approach for advancement of learning, teaching and research activities among and between the constituent colleges of the university
- To promote higher order learning outcomes and transferable research related capabilities.
- To build generic thinking skills such as collecting, analyzing and organizing information that is essential for successful workplace performance

Context:

- The synthesis of teaching and research is fundamental in any institute.
- The institute believes that research plays an important role in innovation-driven global society and that research has become the key to prosperity and social well-being.
- Research in Health Sciences institutions need nurturing and support as most of the faculty of such institutions are actively engaged in providing clinical services and teaching students at an under-graduate and post-graduate level without sufficient time as well as direction to pursue research activities.
- The limitation of time and completely occupied in a focused manner in a highly specialized area limits interdisciplinary approach and thinking process. Both these issues have been an impediment in nurturing research and education as the two wheels of the cart, in health sciences institutions all over the world.

The Practice:

- The institute considering that Research would be an important facet for its Vision and Mission in providing quality education to the students had taken several steps to strengthen its research initiatives with appropriate research policy, research infrastructure and hiring and training of human resource in an appropriate manner.
- The integration of education and research was facilitated adopting the below mentioned in varying format and extent in its different academic program at UG and PG Levels
- Research-led Teaching in the sense that the curriculum is structured around subject content



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- Research-orientated Teaching in the sense that the curriculum places emphasis as much on understanding the processes by which knowledge is produced in the field as on learning the codified knowledge that has been achieved
- Research-based Teaching in the sense that the curriculum is largely designed around inquiry based activities, rather than on the acquisition of subject content
- Research-informed Teaching in the sense that it draws consciously on systematic inquiry into the teaching and learning process itself.

The above processes were initiated through the following steps:

- Constituted a Student /Faculty Research Cell to facilitate research in the institute and were mandated to provide strategies for integrating education and research through curricular enrichment and innovations.
- Conduct inter-disciplinary seminars, workshops, and symposia with national and international experts and pioneers in health sciences education and research with a focus on building problem solving, critical thinking and learning - to - learn skills.
- Identify established areas of research strength and strengthen available resources in those areas of research and doctoral study and develop integrated PG/ UG. programs
- Identify nationally /internationally faculty who can augment research and encourage them to join in the institute.
- Develop the identified strengths mentioned above into potential nationally and internationally recognized centers of excellence.
- Achieve national/international recognition through publication of research articles in scientific journals, presentations at national and international scientific meetings and competing for national and international highly acclaimed awards.

Evidence of Success:

The impact of integrating research and education advocacy is seen in terms of:

- Development of students who are self-directed, self-disciplined, self-monitored and self-corrective with rigorous standards of excellence. Consequently, about 50% of all the students pursue PG Programs and 10% of the postgraduates pursue doctoral and other research avenues.
- The master students were able to enlarge their learning experience by applying various learning resources, new technologies and collaboration situations which in turn developed their scientific thinking capabilities.

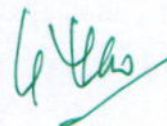


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- Development of curriculum which is interdisciplinary and research focused in emerging areas leading to starting of innovative methods.
- Establishment of Centre of Excellence in Molecular Biology, central research lab and pharmacy research lab.
- Highly recognized International and national research organizations and institutions willing to partner in research program in emerging areas.
- Year on year increase in the research publications in various national and international peer reviewed journals and similarly an increase by 50% of the number of publications in high impact factor journals.

Challenges and resources required:

- The reference point or an approach to integrating research and education in Health Sciences is lacking from resources. This was overcome by involving stakeholders during the curriculum development who believe research as an integral part of education and incorporating their suggestions.
- Further, the limited flexibility in Dental programs with regard to curricular content modification imposed by the statutory bodies was a major impediment. This was overcome by conducting curricular enrichment courses which integrated education and research.
- Besides, the shortage of manpower in clinical specialties is always a major constraint. This was overcome by hiring at least 10% of additional faculty in each of the department beyond the statutory requirement for the purpose of nurturing research reduced the resistance among the faculty from clinical specialties and got them involved in research activities.
- The initial reluctance of students to comprehend education and research in early learning experiences was converted to a challenging environment that made students compete to excel.
- It is evident that in order to promote the students quality of learning outcomes - development of research related capabilities in higher education in the research-based academic studies are necessary for broadening students experience which will, in turn, bring social recognition and have an impact on students self feeling.



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