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THE ROLE OF ENVIRONMENTOL SCIENCE, AND INVESTMENTS IN SCIENCE,TECHNOLOGY, ENGINEERING, (STE)

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ABSTRACT

The science of Environment studies is a multi-disciplinary science because it comprises various branches of studies like chemistry, physics, medical science, life science, agriculture, public health, sanitary engineering etc. it is the science of physical Phenomena in the environment. It studies of the sources,reactions, Transparent,effect and fate of physical a biological species in the air, water and soil and the effect of from human activity upon these. The future of science and engineering, and our Nation's ability to contribute significantly to the solution of global problems, depends on human capital. A diverse workforce with advanced research training is essential for transforming the frontiers of science and engineering.NSF's commitment to advancing science, technology, engineering, (STE)and developing human capital in tandem has been a hallmark of the agency's investments since its founding in 1950. Physical environment ,refers to geographical climate and weather or physical conditions wherein and individual lives. The physical Environment is classified in to three broad categories viz.--Solid, Liquid,and Gas. The National Centre for improving Science Education makes the following distinction: Science proposes explanations for observations about natural world .Technology proposes solutions for problems of human adaptation to the Environment. The growth of computationally intensive and data-enabled science has changed the knowledge and experience requirementsof scientists across fields.

KEYWORDS:*NSF,STE, Environment studies, Human activity, Medical Science, Life science, frontiers, global problems.*

1.INTRODUCTION :

The Environmental means the surrounding external conditions, influencing development or growth of people, animal or plants; living working conditions etc. Importance of Environment Studies enlighten us, about the importance of protection and conservation of our indiscriminate release of pollution in to the environment. The Environment is both physical and biological. It includes both living and non-living components-

(I) physical Environment:-the physical Environment is classified in to three broad categories viz. Solid, Liquid, Gas

These represent the following spheres: -(a)The Lithosphere(solid Earth) (b) The Hydrosphere (water component) (c) The Atmosphere.

As such,the three basic of physical environment may be termed as under: Lithospheric Environment, Hydrosphere Environment, and Atmospheric Environment.

(II)Biological Environment:-The Biological of the environment consists of:-Plants (flora), Animals (fauna).

With these changes, graduate education in (STE) must continue must continue to evolve in order to provide a supply of scientists and engineers who not only meet the needs of the

emerging (STE) enterprise, but who also have the knowledge, skills, and preparation to advance it, both within and outside of academia.

2.METHODOLOGY: -For the purpose of the study 150 students of B.Sc. first year (Department of Biology) from Chaudhari charan singh P.G. College (Saifai) Etawah. Selected as the subjects for this study. These students were first taught certain Mathematical physics, Concepts such as function and its limits, continuity and derivation features, and then some applications of these concepts in biology were carried out in the classroom. The total number of the subjects was 150. This group was administered an exam which consisted of four questions. Mainly, there were two types of questions; Type 1 included the first two questions testing mathematical knowledge directly, and other type 2 questions were related to the application of mathematics in biology. Subjects were asked to provide expended responses to questions in the exams.

The Exam Administered to the Subjects

Exam 1

if $f(x)=3x^2+5x+2$. Than find the values of roots

Exam 2 If $f(x) = x^3-6x^2+9x+7$ and $g(x) = 3x^2$ prove that gof(x) ≠fog(x)

Exam3 A pharmacologists studying a drug that has been developed to lower cancer disease determines experimentally that the average reduction f in cancer diseases resulting from a daily dosage of xmg of the drug is given by $f(x)=x^3-6x^2+9x+7$(The Units are milligram)

(a)Determine the sensitivity oftwo dosage x at dosage levels of 1mg and 3mg.

(b)At which of these dosage levels would an increase in the dosage have the greatest effect?

Exam 4 in a culture, the bacteria counts is 100,000. The number is increased by 10% in 2 hours .In how many hours will the count reach 200,000 if the rate of growth of bacteria is proportional to the number present?

In the evaluation of this exam, the correct solution meant correct calculations with a correct answer. All other situations were considered as a "Wrong answer." Statistical analysis of the results included percentages and frequencies.

Table 1

STUDENT PERFORMANCE ACCORDING TO QUESTION TYPES

Type 1				Type 2			
Question 1		Question 2		Question 3		Question 4	
N	%	N	%	N	%	N	%
32	21	29	19	96	64	99	66

3. RESULTS AND DISCUSSION: -

The performances of the students in the exams are shown in table 1, 20 % of the students gave a right answer to type 1 questions and 65 % to type 2 questions. When these two averages are compared ,it is clear that student are far more successful with type 2 questions which require the use of mathematics in the biology .It can be said that students fins it difficult to find a solution to the problems testing the knowledge of mathematics directly. This result can be interpreted as follows: "Biology department students find it difficult to comprehend an abstract concept, but they are more successful in solving concrete problems. The NSF Graduate Education Strategic plan will serve as the foundation for our efforts in FY 2016 and beyond. NSF expects to focus on: strengthening the professional development opportunities for graduate in all of our programs. Increasing investment through EHR programs in research to better understand how to improve the learning experiences and professional preparation of STE graduate students.

4. INVESTMENT FRAMEWORK:-

The analysis and pilot activities in fellowship and research assistantship investments to promote cohort models within and pilot activities in fellowship and research assistantship investments to promote cohort models within and across institutions and disciplines; and implementation of more comprehensive tracking and follow-up for NSF graduate student investments. Initiatives begun in FY2014 to enhance the capacity of minority-serving institutions to increase the number of students who successfully compete for GRF awards will continue.

5. CONCLUSION: -

The evaluation approach to assess impact of the NSF-wide investment in graduate education will include a variety of components and will be developed in FY 2015 and FY2016, with plans for a combination of program – specific and thematic evaluation efforts. In other words, we believe that students will be more successful when they are given the chance to discover Physical Fundamental concepts with the help of "real life problem". Still another reason is the lack of interest due to the doublet about the importance of physical science they rarely have physical courses in vocational courses in their departments.

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REFERENCES:-

1. At NSF, about 40,000 graduate students are supported annually at level of about 1 billion.
2. National Science and Technology Council,Committee on STE Education (2013) Federal Science, Technology, Engineering (STE) 5-Year Strategic Plan.
3. Bloch, I. (2003).Teaching Functions in a Graphic Milieu: What forms of Knowledge enable students to Conjecture and prove Educational Studies in Fundamental physics. 52, 3-28.
4. Eisenberg, T (1991). Functions and associated learning difficulties. In D. Tall(Ed) , Advance Physical Thinking. Dordrecht: Kluwer, 140-152.
5. National Institutes of Health (2012) Biomedical Research Work force Working Group Report.
6. M.A. and May, R.M. (2000) Virus Dynamics: Mathematical Physics, Principles of Immunology and Virology. Oxford University Press, Oxford.
7. Mahir, Nevin Cetin, Nezahat and Ureyen, Mehmet(2007)Biology Majors' Performance in a Biomathematics Course. Eurasia Journal of Physical science and Technology Education, 2007, 3(2), 145-147
8. May, R.M. (2004). Uses and abuses of Physical science in Biological science303, 790-793.
9. National Research council (2012) Research Universities and the future of America,
10. American Chemical Society (2012) Advancing Graduate Education in the chemical Science,
11. Council of Graduate Schools (2012) Pathways through Graduate School and In to Careers,
12. New by, J. C. (1980), Physical science for the Biological science:From Graphs through Calculus to differential Equations.Oxford University Press, Oxford.Nowak,

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