



The Multidisciplinary Learning: A Policy Initiative of NEP-2020-Challenges & Opportunities- A Case Study for Sustainable Education in India.

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Abstract

The Digital Revolution is transforming the Learning & Teaching Systems all over the World. What kind of Sustainable Education Excellence Models in India is required in 21st Century? The “Knowledge of many Arts” is to be brought back to Indian Education. The Education approaches that integrate the Humanities and Arts with Science, Technology, Engineering, and Mathematics (STEM) have shown positive learning outcomes. India aims to have an Education System by 2040 that is second to none.

Key Words: Digital Revolution, Sustainable, Multidisciplinary Learning, Education System

I. Introduction

Why the necessity for “Multidisciplinary Learning” for Sustainable Growth & Development has been felt so late in India? The recent National Education Policy -2020 by Ministry of Human Resource Development, Government of India is a very promising step towards reforming and restructuring the overall Education System in India.

The major focus is on Learning Environment, Multidisciplinary Education, Quality & Integrity, Motivated & Energized Faculty, Effective Governance & Leadership, Standards for Approvals & Accreditation, Policies & Regulations, Technology Application & Integration, Curriculum & Creativity, Support for Students Professional Career & Growth for transforming the Higher Education System in India.

Will our NEP-2020 reform & restructure the Education System in India? Will Academic Autonomy liberalize to Globalize the Education System in India? Gone are the days of content Education. The demand is of being multidisciplinary and innovative. What is our present readiness for Contemporary Multidisciplinary Research & Learning?

Education is a tool for transforming life, culture and society. A phenomenal innovative transformation outcome is only possible through discipline, dedication, commitment and extraordinary efforts collectively by any System.

The Global Learning is looking for creativeness which ultimately adds value to the entire supply chain struggling to achieve Sustainable Education. Despite this critical importance

of Research, the Research and Innovation investment in India is at the current time, only 0.69% of GDP; far behind the Countries topping the Global list.

In the above context the Role of Higher Educational Institutions & Universities both in the Public & Private Sector in India becomes indispensable. Though large number of Professionals are being produced annually by Higher Educational Institutions & Universities in India but very marginal of them are able to apply their Academic Knowledge in the pursuit of bettering Society & Country.

Why the Indian Academic Learning Culture fails to promote the potential of integrated creativity in aspiring students? And moreover, the situation is more pathetic in multidisciplinary Academic Research. The present Education System in India lacks creativeness in learning to sustain regional localities and uplift equitably and integrally the Socio-Economic Development Globally.

II. Review of Literature

The National Education Policy 2020 is the first education policy of the 21st Century and aims to address the many growing developmental imperatives of our Country. This Policy proposes the revision and revamping of all aspects of the education structure, including its regulation and governance, to create a new system that is aligned with the aspirational goals of 21st Century Global Education; while building upon India's diversified traditions and value systems.

“The Multidisciplinary Learning defines that curriculum must include basic arts, crafts, humanities, games, sports and fitness, languages, literature, culture, and values, in addition to science and mathematics, to develop all aspects and capabilities of learners; and make education more well-rounded, useful, and fulfilling to the learner”. (NEP-2020). Moreover, the proposed Education System must build character, enable learners to be ethical, rational, compassionate, and caring, while at the same time prepare them for gainful, fulfilling employment.

The gap between the current state of learning outcomes and what is required must be bridged through undertaking major reforms that bring the highest quality, equity, and integrity into the system, from early childhood care and education through higher education. What are the prime factors responsible for Innovating in the Education System? A new curriculum is to be innovated which can synchronize with the NEP-2020.

III. Research Objectives

The objective of this Research through this Case Study is to investigate and understand the essentials of healthy ecosystem for education in India towards implementing Multidisciplinary Learning & Teaching both at Elementary Schools and Higher Educational Institutions & Universities in India. Moreover, the purpose of the study is also to explore the approaches of our emerging Education System in attaining Sustainable Education in India. The objective is to understand the perspectives on Multidisciplinary Learning in India.

Future Readiness & Preparedness are full of Challenges & Opportunities. It is a serious concern considering the multidisciplinary abilities across the sciences, social sciences, and humanities. The Study attempts to examine, “Will the National Education Policy 2020 address the emerging issues of Multidisciplinary Learning?”.

IV. Research Methodology

For which a thorough study of existing literature related to the Multidisciplinary Learning of Educational Institutions in India as well as World has been examined and probed for the essential attributes impacting and influencing the emerging trends in Sustainable Education.

The probable major attributes which perhaps are primarily essential to be addressed are Holistic Education, Corporatization of Education, Multidisciplinary Learning, Freedom to Students, Vocal for Local, and Transforming through Technology; to bring sustainability in India's Education System

The Research design formulated here was to collect primary data on these five (05) variables through a structured questionnaire (hard copy & electronic) based on random sampling from the targeted population of Educational Professionals (both Elementary School and Higher Institutions) and Students Community. Understanding the limitations of the study twenty five (25) Education Centers each (i.e., a mix of major Schools, Colleges and Higher Educational Institutions /Universities) across India, was specifically focused, examined and considered for ten (10) respondents from each Education Centre.

In total the field responses of two hundred fifty (250, @10 each from scattered (25) Education Centres across India) respondents were recorded, examined, evaluated and analyzed co-relating with the secondary data sourced from literature review for understanding the emerging trends in failures of Indian Education System; with respect to Gap Analysis on Interdisciplinary & Multidisciplinary Curriculum and Creativity in Educational Courses. Based on these findings through Quantitative Analysis using simple descriptive statistical tools of percentage the Researchers have recommended and suggested valuable remedial measures for developing Sustainable Education in India.

V. Problem Statements

What do you mean by Multidisciplinary Learning & Education? The landscape of Indian Education System is under reformation with the enactment of the New Education Policy (NEP -2020). Will the initiative of Multidisciplinary Learning by "NEP-2020" create a holistic Education System?

To evaluate India's presently ailing Education System; suffering with processes, teaching & learning experiences, effectiveness, objectives, outcomes and impacts following attributes as variables have been designed for study as Problem Statements in the present Research in the backdrop of the major initiatives undertaken by University Grants Commission (UGC is a statutory body with; the earlier name Ministry of Human Resource Development /which is now renamed as Ministry of Education, Government of India, entrusted with the task of determination, coordination and maintenance of standards of teaching, examination and Multidisciplinary Learning

Will all the higher learning Institutions be converted into Multidisciplinary Institutions by 2040? Are you in favor of implementing a Multidisciplinary Education System in University/HEI? Can a Multidisciplinary Education System help in developing all capabilities of Human Being to meet the challenges of the 21st Century?

1. Freedom to Student-Choice of Course

What is your opinion on the freedom to student's "Choice of Course" with the option of "Multiple entries and exit points" being introduced through the establishment of "Academic Bank of Credit", as per the NEP-2020? Will the establishment of the National Research Foundation catalyze Quality Academic Research in India? Your opinion on, "The transformation of traditional libraries into digital libraries".

2. Vocal for Local (Embedding Vocational Education into Mainstream)

Can Vocational Education/Studies become an independent discipline in India? Will NEP-2020 be successful in synchronizing & integrating Vocational Education in the mainstream? To increase the

Public Investment in Education Sector to reach 6% of GDP at the earliest. Is our NEP-2020 focusing on the Internationalization of Higher Education? Will the creation of the National Educational Technological Forum (NETF) help to achieve the targets and mandates of NEP-2020? Share your opinion on the creation of the National Research Foundation (NRF) and its future effectiveness in developing Academic Research. Will Technological Interventions improve Teaching & Learning?

3. Transforming through Technology

Your comment on “Transforming Education through the integration of Technology”. Is Pupil Teacher Ratio (PTR) not a major concern in NEP-2020? Will the NEP-2020 bring better accreditation for Quality Education? Will SWAYAM/MOOC platform achieve the three cardinal principles of India’s New Educational Policy- Access, Equity and Quality?

VI. Analysis, Findings & Suggestions

The (field & virtual) survey was carried out with the help of both (hard copy & electronic) questionnaires respectively and the selective respondents on sampling were interviewed (both in field & through google meet mode/telephonically) for their views on the area of Research related to “Multidisciplinary Learning”.

Based on their opinions and feedback the data was analyzed and accordingly outcomes have been worked out. The findings were then mapped with the secondary data available from the relevant review of literature in the area of study.

And it was interpreted to understand the perspectives of Educational Professionals on the “Multidisciplinary Learning” in India’s Education System along with the gaps in the emerging trends mandated in NEP-2020; after analyzing both the primary and secondary data.

Demographic Information Gathered

The Survey revealed that the gender responses; male is to female ratio was 55% to 45%. In Age Group category it was observed as 27.5% under 25 years, 36.5% for 26-35 years, 18.0% for 36-45 years, 9.0% for 46-55 years and 9.0% for above 56 years. The responses for period of service (years) in Education Sector were distributed as 18.2% for <5, 9.1% for >5, 9.1% for <10, 27.3% for >10 <15, 18.2% for >15<20 and 18.2% for >25 years. For the Relationship Status of the Individual respondents following can be summarized; 18.2% were unmarried, 70 % were married and 11.8% were found to be divorced/separated. The type of family of the respondents was 27.3% for Joint and 72.7% for Nuclear. The distribution in the Teacher Category who participated in the Research Survey was 9.1% for University Professor, 9.1% for College Lecturer, 45.4% for School Teacher, 16.4% for Private Teacher, 10% for Education Consultant, and 10% for non-Teaching.

Interpretation

1. Do you understand the meaning of “Sustainable Education” in India? 27.3% of the respondents each Strongly Agree and Agree, 9.1% each Disagree and Strongly Disagree, and the remaining 27.2% had no opinion on the above problem statement.

2. Are we ready with a sound framework for Multidisciplinary Learning? 27.3% of the respondents each Strongly Agree and Agree, 9.1% each Disagree and Strongly Disagree, and the remaining 27.2% had no opinion on the above problem statement.

3. Is there a need to Restructure & Reform the current Institutional Structure? 32.3 % of the respondents

each Strongly Agree and Agree, 4.1% each Disagree and Strongly Disagree, and the remaining 27.2% had no opinion on the above problem statement.

4. Will the objective of 50% GER (GROSS ENROLMENT RATIO) in Higher Education be achieved by 2035? 32.3% of the respondents each Strongly Agree and Agree, 9.1% each Disagree and Strongly Disagree, and the remaining 17.2% had no opinion on the above problem statement.

5. The NEP-2020 talks more about Over-Centralization and less about De-Centralization. 27.3% of the respondents each Strongly Agree and Agree, 9.1% each Disagree and Strongly Disagree, and the remaining 27.2% had no opinion on the above problem statement.

6. Is India's Education System getting Commercialized & Corporatized? 27.3% of the respondents each Strongly Agree and Agree, 9.1% each Disagree and Strongly Disagree, and the remaining 27.2% had no opinion on the above problem statement.

7. Can Technology up-gradation overcome educational disruption in India? 27.3% of the respondents each Strongly Agree and Agree, 9.1% each Disagree and Strongly Disagree, and the remaining 27.2% had no opinion on the above problem statement.

8. Will all the higher learning Institutions be converted into Multidisciplinary Institutions by 2040? 9.1% of the respondents each Strongly Agree and Agree, 27.3% each Disagree and Strongly Disagree, and the remaining 27.2% had no opinion on the above problem statement.

9. Are you in favor of implementing a Multidisciplinary Education System in University/HEI? 9.1% of the respondents each Strongly Agree and Agree, 27.3% each Disagree and Strongly Disagree, and the remaining 27.2% had no opinion on the above problem statement.

10. Can a Multidisciplinary Education System help in developing all capabilities of Human Being to meet the challenges of the 21st Century? 9.1% of the respondents each Strongly Agree and Agree, 27.3% each Disagree and Strongly Disagree, and the remaining 27.2% had no opinion on the above problem statement.

11. What is your opinion on the freedom to student's "Choice of Course" with the option of "Multiple entries and exit points" being introduced through the establishment of "Academic Bank of Credit", as per the NEP-2020? 18.2% of the respondents each Strongly Agree and Agree, 27.3% each Disagree and Strongly Disagree, and the remaining 9% had no opinion on the above problem statement.

12. Will the establishment of the National Research Foundation (NRF) catalyze Quality Academic Research in India? 9.1% of the respondents each Strongly Agree and Agree, 27.3% each Disagree and Strongly Disagree, and the remaining 27.2% had no opinion on the above problem statement.

13. Your opinion on, "The transformation of traditional libraries into digital libraries". 18.2% of the respondents each Strongly Agree and Agree, 27.3% each Disagree and Strongly Disagree, and the remaining 9% had no opinion on the above problem statement.

14. Can "Vocational Education and Training" (VET) become an independent discipline in India? 18.2%

of the respondents each Strongly Agree and Agree, 27.3% each Disagree and Strongly Disagree, and the remaining 9% had no opinion on the above problem statement.

15. Will NEP-2020 as a Policy Imperative be successful in synchronizing & integrating Vocational Education in the mainstream? 27.3% of the respondents each Strongly Agree and Agree, 18.2% each Disagree and Strongly Disagree, and the remaining 9% had no opinion on the above problem statement.

16. Has “SKILL Education replaced Vocational Education”? 27.3% of the respondents each Strongly Agree and Agree, 18.2% each Disagree and Strongly Disagree, and the remaining 9% had no opinion on the above problem statement.

17. To increase the Public Investment in Education Sector to reach 6% of GDP at the earliest. 27.3% of the respondents each Strongly Agree and Agree, 18.2% each Disagree and Strongly Disagree, and the remaining 9% had no opinion on the above problem statement.

18. Is our NEP-2020 focusing on the Internationalization of Higher Education? 27.3% of the respondents each Strongly Agree and Agree, 18.2% each Disagree and Strongly Disagree, and the remaining 9% had no opinion on the above problem statement.

19. Will the creation of the National Educational Technological Forum (NETF) help to achieve the targets and mandates of NEP-2020? 27.3% of the respondents each Strongly Agree and Agree, 18.2% each Disagree and Strongly Disagree, and the remaining 9% had no opinion on the above problem statement.

20. Share your opinion on the creation of the National Research Foundation (NRF) and its future effectiveness in developing Academic Research. 27.3% of the respondents each Strongly Agree and Agree, 18.2% each Disagree and Strongly Disagree, and the remaining 9% had no opinion on the above problem statement.

21. Will Technological Interventions improve Teaching & Learning? 27.3% of the respondents each Strongly Agree and Agree, 9.1% each Disagree and Strongly Disagree, and the remaining 27.2% had no opinion on the above problem statement.

22. Your comment on “Transforming Education through the integration of Technology”; 32.3% of the respondents each Strongly Agree and Agree, 5.1% of the respondents Disagree and 4 % Strongly Disagree, and the remaining 17.2% had no opinion on the above problem statement.

23. For the dimension, “Is “Pupil-Teacher Ratio” (PTR) not a major concern in NEP-2020?”; 27.3% of the respondents each Strongly Agree and Agree, 14.1% each Disagree and Strongly Disagree, and the remaining 17.2% had no opinion to share.

24. Opinion on, “Quantity & Quality of Teachers Training in India”. 27.3% of the total sample respondents each Strongly Agree and Agree that quality of Teachers training has improved in India, 19.1% each Disagree and Strongly Disagree, and the remaining 7.2% had no opinion on the above problem statement.

25. Will the NEP-2020 bring better accreditation for Quality Education? 37.3% of the respondents each Strongly Agree and Agree, 4.1% each Disagree and Strongly Disagree, and the rest 17.2% remained Neutral without sharing their opinion on the above problem statement. The Researchers discovered that a whopping majority nearly 74% agreed that NEP -2020 can bring accreditation for Quality Education in India. This finding is very much in line with the purpose with which the NEP-2020 had been initiated by India's Educational Policy Makers.

26. Will SWAYAM/MOOC platform achieve the three cardinal principles of India's New Educational Policy, Access, Equity and Quality? 32.3% of the respondents each Strongly Agree and Agree, 9.1% of the respondents each Disagree and Strongly Disagree, and the remaining 17.2% had no opinion on the above problem statement.

27. NEP-2020; A Road map for future readiness of Global Citizens who will contribute in multiple contexts-Locally, Nationally, Internationally. 27.3% of the respondents each Strongly Agree and Agree, 9.1% each Disagree and Strongly Disagree, and the remaining 27.2% had no opinion on the above problem statement.

28. For the dimension Opinion on, "Internationalization Strategy in context with the National Education Policies". 27.3% of the respondents each Strongly Agree and Agree, 9.1% each Disagree and Strongly Disagree, and the remaining 27.2% had no opinion on the above problem statement.

29. For the dimension, "Will incentivizing HEI improve the Operationalization of the Indian Higher Education System?", 27.3% of the respondents each Strongly Agree and Agree, 36.4% remained Neutral, 4% Disagree and 5% Strongly Disagree. It is healthy to note the researchers' discovery that nearly 54% majority of the respondents have faith that incentivizing HEI will certainly improve the Operationalization of the Indian Higher Education System.

30. Will the implementation of NEP-2020 improve employability Globally? For this problem statement, 18.2% of the respondents each Strongly Agree and Agree, 27.3% of respondents each Disagree and Strongly Disagree, and the rest 9% remained Neutral.

Suggestion -Way Forward

Unless the Indian Academic System thinks qualitatively with the multidisciplinary perception for Sustainable Educational Growth & Development the future readiness will be incomplete with respect to Global Standards. The ultimate aim of Multidisciplinary Learning & Education is to prepare Students for a Sustainable Knowledge Society.

VII. Conclusion

India's Education thus, in the pursuit of Multidisciplinary Learning must move towards less content, and more towards learning to think critically and solve emerging problems. The question is, how to be creative and multidisciplinary, and how to innovate, adapt, and absorb new material in novel and changing fields.

Pedagogy must evolve to make education more enthusiastic, experiential, holistic, multidisciplinary integrated, inquiry-driven, discovery-oriented, learner-centered, discussion-based, flexible, and, of course, enjoyable. It is not only the "Collaboration of Technologies" but even the "Collaboration of

Cultures” is equally to be addressed by the Indian Education System striving to Globalize.

The pursuance of NEP-2020 is promisingly going to improve and attain the objectives of GER, PTR, VET and Global Citizens giving a new global outlook to India’s Education. Moreover though the policy of commercialization & corporatization have been criticized ;the mandate of “Access ,Equity and Quality” is certainly going to revolutionize the overall supply chain and transform India’s Education System.

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