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# NEGOTIATING PITFALLS IN COURSE DESIGN VIS-À-VIS NEP 2020 PROPOSAL FOR MULTIDISCIPLINARY EDUCATION

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**ABSTRACT**

*With regard to Higher Education, the National Education Policy (2020) put forward a novel proposal for a holistic multidisciplinary education "to lead the country into the 21st century and the fourth industrial revolution"(P37). The notion of a 'knowledge of many arts' or what in modern times is often called the 'liberal arts' prevalent in ancient India is proposed to be brought back to Indian education (P36). More than a decade ago the University Grants Commission floated the idea of autonomous institutions with the liberty to design Courses. Then, teaching departments in autonomous institutions undertook hectic efforts to transform the existing Curriculum. Now with multidisciplinary education and Liberal Arts approach being proposed in NEP 2020, new courses are likely to be launched soon. Educationists know that curriculum design is a professional enterprise and designing a multidisciplinary curriculum is quite complex. Practitioners know that the term Multidisciplinary is a bit fuzzy in nature with closely related terms such as Inter-disciplinary and Trans-disciplinary. So when NEP 2020 proposes teaching subjects in Humanities, Arts, Sciences and Mathematics from a Liberal Education perspective multidisciplinary curriculum design may lead to many pitfalls. What exactly should curriculum developers do to avoid the pitfalls in multidisciplinary curriculum design? How can curriculum designers address Post Modern perspectives while designing syllabuses, following student-centred practices and computer assisted teaching and learning? These are some of the questions this paper tries to answer. The paper commences by referring to the introduction of 'Multidisciplinary' perspective in NEP 2020 followed by pedagogy of Multidisciplinary study. After mentioning the current trend in the arts stream, Post Modern perspectives in education is highlighted. This is followed by a reference to earlier pitfalls in curriculum design and the steps to be followed in curriculum design focusing on student- centred practices and the use of technology. The paper concludes by listing down certain aspects curriculum developers need to look into in the context of NEP 2020 in the time Industrial Revolution 4.0.*

***Keywords:*** *Curriculum, Design, Liberal Arts, Multidisciplinary, NEP 2020, Post Modernism*.

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## Introduction

### Multidisciplinary Perspective in NEP 2020

A major highlight of the new National Education Policy 2020 is the impetus to multidisciplinary education. (1) **The Director, IIT Kharagpur, Prof. VK Tewari welcomed the** proposal as it would strengthen the holistic and academic needs of the new generation IITs.(2) To the **Founder and CEO of Great Learning, Mohan Lakhamraju,** all aspects of business and society are complex and multi-disciplinary in nature hence **NEP 2020's** push towards making all institutions multidisciplinary is definitely an excellent step. (3)

NEP 2020 expects the ancient Indian notion of a 'knowledge of many arts' earlier offered in Takshashila and Nalanda or what in modern times is often called the 'liberal arts' (i.e., a liberal notion of the arts) to be brought back to Indian education.(NEP 2020, 11.1. P36) "Such an education will help develop well-rounded individuals that possess critical 21st century capacities in fields across the arts, humanities, languages, sciences, social sciences, and professional, technical, and vocational fields; an ethic of social engagement; soft skills, such as communication, discussion and debate; and rigorous specialization in a chosen field or fields."(NEP 2020, 11.3 P36)

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**Pedagogy of Multidisciplinary Study**

One definition of 'multidisciplinary' reads: combining or involving more than one discipline or field of study (Merriam Webster). **Pedagogy in Action**, a portal for educators defines it: "***Multi-disciplinary*** *analysis – examines an issue from multiple perspectives, without making a concerted effort to systemically integrate disciplinary perspectives".*

Research scholars who make use of the popular website, **Research Gate** attempted to clarify the term 'multidisciplinary' and the interpretation posted by Sanganyado is fairly precise: "**Multidisciplinarity** *draws on knowledge from different disciplines but stays within their boundaries*. **Interdisciplinarity** *analyzes, synthesizes and harmonizes links between disciplines into a coordinated and coherent whole*. **Transdisciplinarity** *integrates the natural, social and health sciences in a humanities context, and transcends their traditional boundaries*.

There are also authors who do not see any difference between 'multidisciplinary' and 'interdisciplinary'. But what exactly does pedagogy in multidisciplinary study imply? Newell (1990) and Field et al. (1994) have identified distinct educational benefits of interdisciplinary learning which according to them enables the learner to : Recognize bias, Think critically, Tolerate ambiguity and Acknowledge and appreciate ethical concerns. Allen Repko (2009), identified four cognitive abilities that interdisciplinary learning fosters. They include:

- *Perspective-taking techniques* which involves the appreciation of differences between disciplines and the capacity to understand multiple viewpoints on a given topic, besides approaching a problem and their rules of evidence.
- *Development of Structural Knowledge* which comprises factual knowledge, technically known as Declarative knowledge and process-based information technically known as Procedural Knowledge.
- *Integration of conflicting insights from alternative disciplines* which arises when ideas from several disciplines are embraced while investigating an issue. In such situations, the intellectual challenge is to find ways to account for alternative perspectives that arise.
- *Interdisciplinary Understanding* which involves the ability to see an issue from different perspectives and consciously recognizing how alternative approaches influences one another.

How exactly can classroom tasks based on multidisciplinary courses foster critical thinking? How can procedural knowledge of different disciplines be properly unified to gain a proper understanding of different disciplines that enables the student to gain an array of perspectives? A failure to address such questions can result in pitfalls in multidisciplinary curriculum design.

**Current Trend in the Arts stream**

Teachers and lovers of literature know that modern literature draws from disciplines of History, Philosophy, Sociology and Psychology. In recent years, there has been a trend in academia in India, to move towards interdisciplinary study. In an interview, Prof GJV Prasad of the Centre for English Studies, Jawaharlal Nehru University made some significant observations. In his own department, students were showing an interest in pursuing courses in Culture Studies. But Prasad is doubtful about its success: "In cultural studies you are dealing with everything from history, political science, linguistics, translation studies to films…The fuzziness of borders between disciplines is now part of the turf of English departments. Interdisciplinarity earlier meant that you should be totally conversant with methodologies of other disciplines but that is no longer demanded. It has its own pros and cons. It is good in the sense that it has made English departments exciting places to be in and bad because humility and admittance of lack of knowledge about other disciplines has been replaced by brashness. One needs to question the training of students in other disciplines when we don't even train people any longer in close reading of texts."

NEP 2020 has proposed a Liberal Arts Education through different disciplines that include Humanities, Arts, Sciences and Mathematics suitably integrated with a deeper study of a special area of interest. Here, one may be prompted to ask to what level is the so called 'deeper study' possible if the very teachers teaching the subject in the different departments are not trained in the knowledge base of each discipline. The limited success in the pursuit of interdisciplinary study in a leading University in the country like the Jawaharlal Nehru University implied in the words of the Professor cited above is a case in point.

**Post Modern Perspectives in Education**

Discussing Post Modern Education, the French Philosopher Jean-François Lyotard pointed out the significance of students at the postsecondary level learning from computerized data banks, which he calls "the Encyclopedia of tomorrow". This implies that the teachers of today must help students "learn how to learn," using such technology. Beck (1993) discussing Post Modernism and Philosophy of Education illustrated the implications of the Post Modern Pedagogy : "… students in schools from an early age should be helped to see how ideas and institutions are tailored to suit people's values and interests: how, for example, a picture book or novel expresses the distinctive needs and background of the author; or how TV programming promotes life-styles which benefit commercial enterprises; or how the health professions tend to favor males over females; or how the school curriculum reflects the values of certain sectors of society… While schooling should as far as possible be dialogical, it should not be a mere pooling of ignorance. To be effective, dialogue requires strong input of many kinds: information, examples, stories, feelings, ideas, theories, worldviews, and so on..." This then indirectly suggests that multidisciplinary course design and curriculum transaction is a highly professional enterprise.

**Pitfalls in Curriculum Design**

When the UGC floated the idea of autonomous institutions with the liberty to design Courses, their teaching departments quickly became a bee hive of activity. Hectic efforts were under way to transform the existing Curriculum. A number of new Courses were launched and the designers wholeheartedly expected brand new classes and settings. But within months, came the realization that designing a Course is definitely a daunting task. One obvious reason for the failure was that in their enthusiasm to revamp the whole system, many teachers introduced an array of interesting topics and texts without clearly specifying what should be the instructional objectives. A review of syllabuses of autonomous institutions by the author revealed that in many cases the focus was on including popular and acclaimed 'texts' rather than in identifying specific learning outcomes or instructional strategies. Some even failed to determine how to measure whether students are learning what they are expected to learn. Still others did not see any real difference between a Curriculum and a Syllabus!

**Steps in Designing a Course**

Effective Course design is a multi-step process in which experts: 1.Think about the course 2. Identify its role in the Curriculum 3. Gather information about the participants of the Course 4. Scan the administrative details. This implies that for a Course Design to be effective, the experts should begin by asking questions: 1. Who are the students? 2. What do you want your student to learn? 3. How do you know they are learning it? Then to lead students in their learning, the experts design a set of activities, assignments and materials.

The following are specific steps worth following while designing a course:

- Determine the student objective.
- Determine Course content and identify:
  - Course materials which students need such as books and multimedia materials.
  - The kind of assignments, projects and tests that are to be given.
  - The teaching strategy is to be employed to achieve the learning outcomes.
- Develop Course Outline. This will include :
  - Order of topics
  - Assignments
  - Student evaluation
- Course Calendar- duration - class time
- Write the Syllabus

**Student-centred Practices and Use of Technology**

In student-centred learning, students take responsibility of their own learning. However, for this to happen, educational institutions will have to provide a framework of policies and practices that facilitate this. In addition to this teachers can make use of questionnaires to involve students in curriculum revision. In this way students too can become partners in curriculum design. Both in the delivery of lessons and in assessment of learners, teachers can make use of technology. Besides increasing equity to access, it reduces the time needed to accomplish a set of given objectives. Through a proper application of ICT tools for learning, it is possible for students to become creative, competent and productive users and achieve curriculum outcomes. In fact, following the Covid pandemic and the shift to Online pedagogy there has been a spurt in online learning and e-courses.

This then makes it imperative to undertake multidisciplinary curriculum design matching blended learning and flipped classroom models along with the development of digital learning materials.

**Summing up**

For an ideal multidisciplinary curriculum, there should be a coherence in two perspectives. Firstly, building courses in which there is a clear link between the course goals and intended learning outcomes, and teaching and assessment methods. Secondly, there should be a proper fitting of duration for the student who opts for the course which seamlessly ties it up with other courses in the basket of courses.

NEP 2020 promotes a participatory, holistic, and inclusive approach into education. For teachers, inculcating in students 21st century skills and using AI based assessment through an integration of technology is definitely a challenge. NEP unfortunately does not suggest the road map for experiential learning, social engagement skills or critical thinking while pursuing a multidisciplinary curriculum. But keeping in view the fourth industrial revolution 4.0. and the new skill set requirement, educationists need to design a multidisciplinary curriculum which ultimately helps the student to compete in a global job market.

Today, it is being increasingly acknowledged that the volume and quality of knowledge that an individual possesses is likely to determine the fate of that individual and his society. Perhaps it would be appropriate to conclude with a suggestion for multidisciplinary education vis-à-vis NEP 2020 guidelines by referring to the findings of the Human Genome Project conducted in the field of Biotechnology from 1996 –2002: Though nature varies from individual to individual the volume of genetic potential in every human being is the same. This implies that any human being, given the appropriate environment in the field of his interest and genetic potential can be brought to the level of excellence.

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