A Nested Model of Multidisciplinary Program in Education

Prof. Dr. Urmila Atul Paralikar
Government College of Education, I.A.SE.
Aurangabad, Maharashtra, INDIA
adityaurmi@gmail.com

Abstract

The world of education is in a great stirring. The western world around us recognized the need of the hour and went on transforming itself by creating new curricula, new pedagogies, experimenting with newer systems of curriculum philosophies. We have merely been furthering the pre-independence traditional models of education system that was handed over to us in legacy. We need to reinvent our education system keeping in view the educational needs of the nation, the society and the students. We need to create new jobs, offer new responsibilities & roles to our pass outs. Key Questions that surfaced in the mind when the author studied this conference brochure. What is the need of Multidisciplinary education in Modern Education System in India now ? Have we envisioned what different profession or jobs the society really needs wrt education? What kind of jobs are we preparing our students for apart from the traditional PGT/ TGT/ Asst Teachers/ Junior College Teachers/ Assistant Profs.? Have we envisioned a curriculum and corresponding pedagogy for the new jobs that will be ought to be generated? Have we given a consideration to what the schools and colleges really need besides conventional ICT teaching as well as the why of it? Could we have a precursory or rudimentary model to begin with?

Keywords: Competencies, Certificates of Competence, Nested Model of Multidisciplinary Program in Teacher Education

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Prof. Dr. Urmila Atul Paralikar
Government College of Education, I.A.SE.
Aurangabad, Maharashtra, INDIA
adityaurmi@gmail.com

Backdrop

The evolving Indian society is in throes of a great transformation. We are heading towards vision 2020 and we must gear up for that. When it comes to the education scene, we all feel there are many areas of concerns like curriculum, pedagogy, evaluation, psychological welfare of students, and future **employability** of the pass outs to fulfil the needs of the society. The society now needs **new jobs** within the profession besides…. PGT/TGT/Asst teachers/Asst Profs./ researchers/ fellows. Now, whereas the developed countries of world have to **offer various kinds of courses** such as Interdisciplinary, Multidisciplinary.

Transdisciplinary through various modes such as Online mode, Regular Mode, Mixed mode, Distance Education mode, Part time mode etc. and have systematically **created new jobs, identified the roles and responsibilities of the professionals,** and **developed** corresponding **Curricula and Pedagogies & modes of evaluation,** we have not **on the other hand experimented greatly,** in these 65 years of freedom we have spread number wise but not corpus wise or quality wise. We have been happy in our comfort zones turning a Nelson's eye to the screams of the shifting times, causing Indian society to stagnate.

If we soon did not adopt a new line of thought then whole nation will be filled with coaching classes, private tutors fleecing money out parents' pockets, leaving a question to the competence of the teacher and leaving the nation high & dry with-it turnouts of in capable puppets fit for nothing but parroting.

THE PROS & CONS OF THE CURRENT EDUCATION SYSTEM

Where there have been lots of reforms in this system, yet the system still suffers from serious lacunae. Let's have a look at both the Pros & Cons of the system.

PROS:

- trying to facelift itself by introducing new standalone and interdisciplinary courses
- Trying to secure international tie-ups & various accreditations

- Trying to secure educationally well qualified teaching faculty
- Trying to provide the best of the infrastructural facilities
- Trying to exercise ICT into teaching methodologies
- Introducing the CBCS system

CONS:

- Curricula are being introduced without acknowledging the future needs of the society or stakeholders. They are too fragmented, **compartmentalized** devoid of **specializations** in subject combinations. The school curricula are shifting radically taking on a new INTEGRATED/ MULTIDISCIPLINARY approach. But the teacher education has not taken a cognizance of it yet.
- Subjects contain theoretical topics and **not real-life issues or themes** that need to be addressed.
- New jobs / job profiles/ job responsibilities are not being created within the School Education system, so same jobs are being secured by undertaking newer curricula (M.A.(Edu.))!
- Neither the Curricula nor the Evaluation Systems are still based on the Competency Outcomes or Employability outcomes, but they just prepare the students theoretically for the job howsoever it may change later!
- Recruitments are being done but based on degrees and marks obtained and not based on competencies! Most ironical feature.

The list is unending, and each State may find many more such ham-fisted drawbacks. That calls for a critical introspection. The one Multidisciplinary approach alone would be focused upon from amongst many other new things here and check whether we obtain any answers atall.

THE CONCEPT OF MULTIDISCIPLINARY PERSPECTIVE

A multi-disciplinary course involves different subjects of study in one activity. (Cambridge dictionary). Multidisciplinary approach to Teaching came into the field of education and other fields, around 1920s, in the United States as an alternative, or as an extension, to the Separate Subject Curriculum (Akins & Akerson, 2002; Goodlad, 2000; Perkins, 1991).

"Teachers who emphasize a multidisciplinary approach usually keep the content of each subject intact, but they unite disciplines by organizing the curriculum around complex concepts, questions, themes, problems, or projects to capitalize on connections" (Akins &

Akerson; Mansilla, iller, & Gardner, 2000; Ross & Frey, 2002) cited in Janet C. Richards and Kim T. SheaUniversity of South Florida, Tampa, Florida.

Thus, in this kind of Linked Learning approach, curriculum need be integrated with reference to instructional method and materials for multidisciplinary teams of teachers to organize their instruction so that students are encouraged to make meaningful connections across subject areas. English, mathematics, science, social studies, and career technical teachers all collaborate to plan and present lessons that center around a central, career–themed issue or problem. The **cons** that still dictate the need of introduction of Multidisciplinary Approach as-

1. Real life thinking is non-Algorithmic.

2. Real life issues require a combined integrated approach to problems. Esp. true of languages, sciences, mathematics, social sciences etc. in case of school education.

3. Generic competencies are not really being taught but are learned on the way… collaborative learning, team working, leadership, decision making, problem solving etc.

4. Workplace situations where volatile issues develop, fast combined decisions must be taken.

5. Curriculum Standards consider content and performance and remove the need for teachers to guess or make inferences about what students need to know. Content standards specify what students should know and be able to do. Performance standards specify the evidence needed to demonstrate achievement

6. Creationism and Evolution, Core Knowledge, the Canon(norms), versus Multiculturalism, Multiple Intelligences, Critical Thinking Skills, Metacognition, Critical Pedagogy (and literacy) everything is taken care of in a Multicultural curriculum.

   School education getting integrated. ex: sciences mixed up; languages mixed up contents of subjects from all walks of life. Math getting integrated and we are trying to make them more real life focused and career oriented.

A CONCEPTUAL MODEL TO INTRODUCE MULTIDISCIPLINARY APPROACH IN EDUCATION

Fundamental consideration should now be that … do we still desire to teach the teacher trainees the **subject centered curriculum** or the **Issue/ Needs centric Linked Learning**

based curriculum? The author suggests the latter and proposes a following conceptual model for Teacher Education Curriculum.

- **Stage 1:** Identify the needs of the community wrt tr education.
- **Stage 2;** Develop *new jobs* for the school and college education. Create job profiles (job responsibilities and job competencies)
- **Stage 3**: Decide *learning outcomes* leading to the competencies (generic & specific) ofthe pass outs
- **Stage 4**: Envisioning *Program of Studies* for the teacher trainees and enumerate the *listof competencies* that will lead to the Job Profile.
- **Stage 5**: Identify the various complementary associated *Courses of Study* that will makeup the Program.
    - 5.1 the completion of Each Course of Study shall lead a Certificate of Proficiency/ Competency in a certain kind of subordinate job
    - 5.2 List out all the contributing *Learning Outcomes per course* of study.
- **Stage 6**: Develop curricula under each Course of Study to achieve those competenciesby….
    - 6.1 Determining the various subjects (S1, S2, S3, S4) that will contribute to a course of study.
    - 6.2 Identify Themes/ Topics of Interest/ Pertinent Issues/Questions facing the community, society, or workplace per subject.
    - 6.3 Identifying subject content in terms of cognate disciplinary areas most important.
    - 6.4 Identify content that will contribute to the solution of the problem/issue /question in consideration
- **Stage 7:** Identify the **modes of learning and teaching**…. Practical, visits, dialogues, experiments, thesis, research, internships, community work, readings, investigations foreach theme decided
- **Stage 8:** determine valid **Modes of Assessment** of student's progress (content understanding, application & competencies developed) and evaluation of his development of competencies according to a predetermined system of Grading for a particular job/task.
- **Stage 9:** award of a Degree in the MDS/BP in Teacher education along with a certificate of competence/ proficiency in each of the

A clarification of the above Model in real life terms is given below both graphically anddescriptively.

Figure 1: *A flow chart of **Nested** Multidisciplinary Program of Education (in Teacher Education)in general terms*
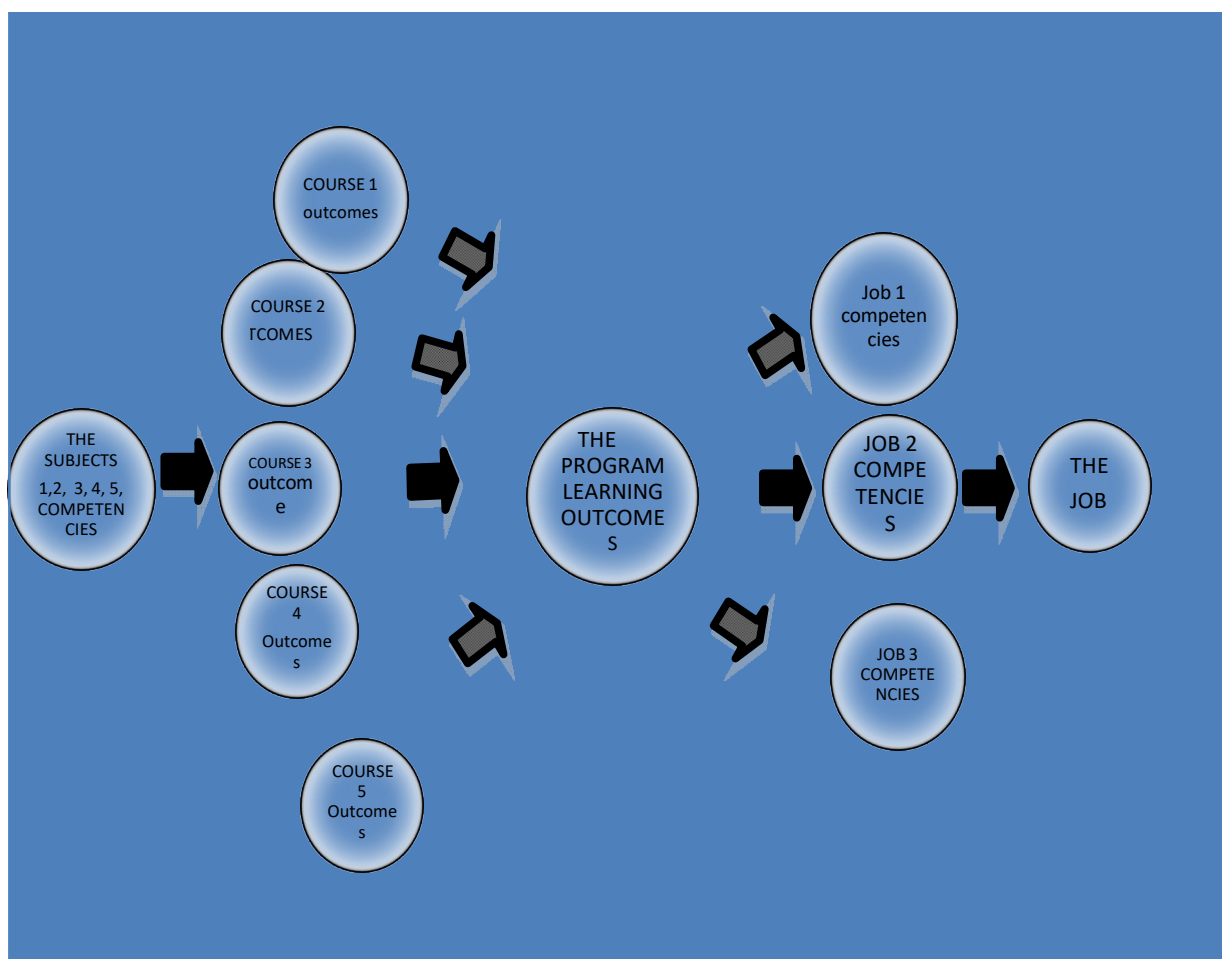
Here one may notice the system begins in the following way……

- **Stage 1**: Job Needs of the society: in the field of School and College Education we are in need of **besides the regular teachers** Academic Advisors, Academic Counselors, Curricula Developers, **Content Developers**, Learning Systems Managers, Programmers, Online Learning Developers, Evaluation Experts, Fine Arts Instructors, Language Experts, At Schools, Researchers, IT Specialist, Book Writers, Science Teachers, Mathematics teachers, social workers, teaching methodologies developers, Journal writers, sports managers etc. we shall be focusing on the job of **Content Developer**

- **Stage 2**: New Jobs for the Schools/ Colleges: we need for our schools apart from regular teachers these also who will take care of various aspects of school education and

collaborate with one another to link learning.

- **Stage 3**: Creating these new Jobs and preparing a **Job Description** for each. For instance: under the job **Content Developers** the incumbent should be entrusted with the task of development, preparation and editing of contents online for online marketing and other front end web development activities

The job responsibilities for instance would be…

- Validating contents for accuracy and usability using support communications and ensure adherence to goals set by the higher officials.

- To find out the right place for the placement of contents on the website to develop the business The **skills needed for this task** would be for instance...

- Good knowledge on information mapping, HTML, Photoshop, Dreamweaver, macromedia flash, MS- FrontPage and other web tools such as Ad words, exact target etc. holds additional advantage to this profession etc. (**Certificate 1**: Database management & Desktop Publishing)

- Excellent online communications, writing skills, good listening skills, multi- tasking skills, ability to work individually are common skills expected of a content developer etc. (Certificate **2**: Online Content Communication Expert)

- Should be able to think and solve critical issues creatively.

    The allied skills will be grouped in categories and separate Certificates of Proficiency /Competencies be provided.

- **Stage 4**: Nest 1: Multidisciplinary Course (MDS)/Bachelors Program (BP) in Education comprising of several courses & out of those the trainee would be able to take up a specified number of *courses of his choice* & one of the Course of Studies would be here e.g., **Academic Content Development** (*Choice based Credit system*). The maximum number of courses may be determined.

- **Stage5:** The **learning outcomes** or the Competencies of this Course of Studies would be the Skills mentioned above and the **mode of evaluation (Formative/ summative/)** of these learning outcomes would be chalked out before everything else. Each of These Course of Studies will lead to a certificate in a constituent job.

- **Stage 6**: Nest 2: Identification of the sub-skills and competencies of each of the **subjects comprising the Course of Study,** that will constitute the learning outcomes. *Most Importantly* now these subjects shall be comprised of cognate disciplines where only that content which is contributing to the development of the Course Competencies will be included.

- **Stage 7**: Development of curriculum to achieve these skills & sub-skills needs in these steps….
- Identifying disciplinary/subject areas where content development in school education is needed…. all school subjects grouped under languages, sciences, and commerce and co-curricular (mandatory for all)
- Identify themes/ topics of interest/ pertinent issues facing the community, society, or workplace
- Sciences: all relevant issues such as …. The world around us, the diseases we suffer, water problems, environment problems, extinction of biological species
- Identify content that will contribute to the *solution* of the problem/issue/question in consideration

   Below is given an illustrative flowchart to clarify the Conceptual Framework further.
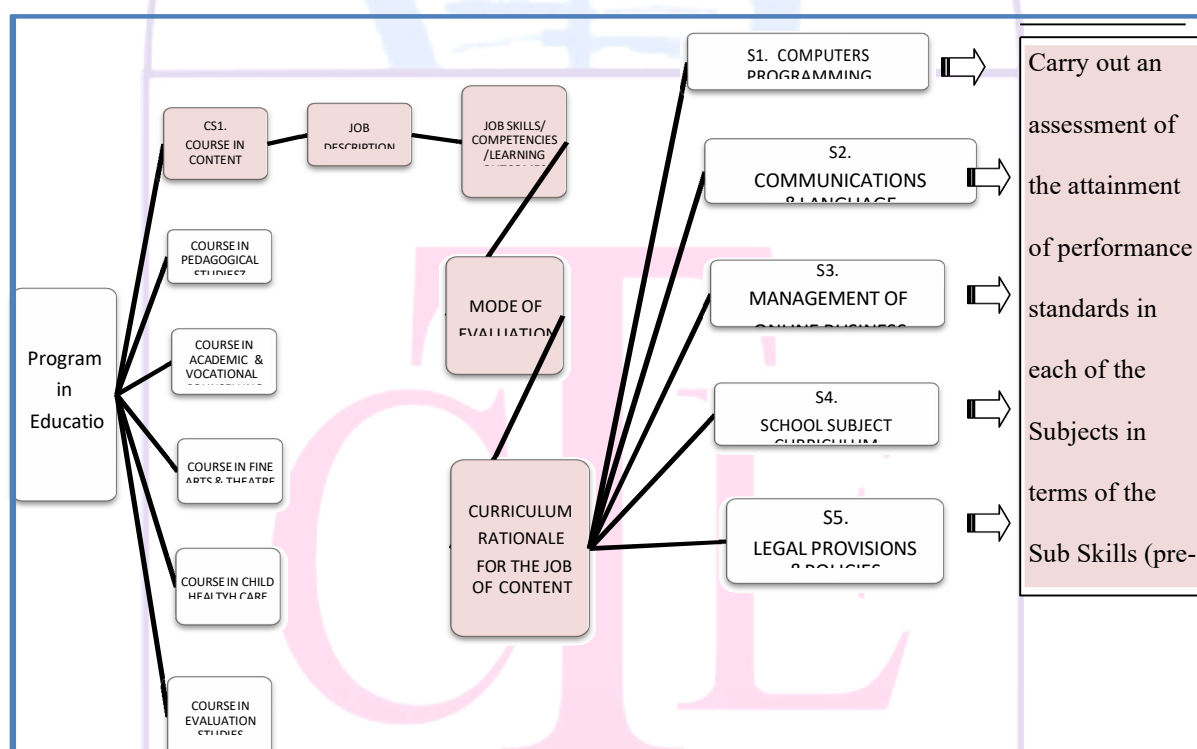
Not only he is assessed in depth both laterally & vertically, but he gets to get various certificates of competence in this NESTED MODEL OF MULTIDISCIPLINARY INTEGRATED EDUCATION after the completion of the Program along-with the Degree.

The author thinks this NESTED SYSTEM OF Multidisciplinary Education System is the only situation of solving the raging current unemployability issue of the nation so that the

Degree holders would have many choices in their hands to apply for many jobs should they not get appointed as a Teacher/ Lecturer/ Professor in an educational institution and moreover should they still not get any employment, they would be able to set them own businesses!!

The fraternity is welcome to offer criticism to this model as it only helps further improve the Model.