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Curriculum designing for secondary teacher education programme

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Abstract

The Curriculum is at the heart of the education process, it sets out what is to be learned and how and when it is to be taught. A proper curriculum designing and curriculum development process gives a successful learning experience for students. There are different approaches for curriculum designing, these are Subject Centered Approach, Learner Centered Approach, Problem Centered Approach, Competency based Approach. Secondary teacher education (B.Ed.) programme helps to prepare teachers who can effectively teach in secondary schools. Secondary teacher education curriculum should equip with appropriate objective, content, learning experiences which will be possible by proper curriculum designing. So that teacher educators can successfully transact the curriculum and help trainee teachers to achieve the curriculum objectives. Curriculum design for teacher education might focus on teaching skill development, critical thinking, communication, self-identity, global awareness, democratic learning, cooperative learning, decision-making etc. So, teacher education curriculum should more emphasised on problem solving approach. The content included in the B.Ed. curriculum help to develop the teaching skill, attitude, behaviour and values which is necessary for a competent teacher which follow the Competency based Approach. In this study, researcher attempted to look at teacher education from the perspectives of approaches of curriculum design and actually which approach is following by the present secondary teacher education curriculum. After the changes occurred in one-year secondary teacher education programme to two years, a paradigm shift helped to rethink teacher education. It was observed that the two-year secondary teacher education curriculum follows the Problem-solving approach and competency-based approach where teachers preparing for teaching in diverse school settings. It is considered to produce life-long learners who can better adapt to the world of work, and is considered inherently more democratic.

1. Introduction

The word 'curriculum' has been derived from a Latin word 'Currere' which means 'a race course' or a runway on which one runs to reach a goal. The Curriculum is at the heart of the education process, it sets out what is to be learned and how and when it is to be taught. It guides the day-to-day experiences of the classroom; it also determines how learning is assessed through the evaluation systems. The curriculum is dynamic, it undergoes regular and constant change, matching new policies and demands with new descriptions of what is taught and how.

And according to Kelly (2009) [5] a curriculum is broadly defined as the totality of student experiences that occur in the educational process.

Curriculum is objective or subjective. In Wiles and Bondi's (2007) writing when they discuss curriculum as being goals or values centered that are activated through the development process and result in successful learning experiences for students.

Curriculum is also a flexible plan for learning and a structure that provides for the translation of vision into learning experiences for students.

Olivia (1997) identifies curriculum quite traditionally as that which is taught in schools, a set of subjects, subject content, a program or course of study, a set of materials, a sequence of courses, a set of performance objectives, everything that goes on within the school including extra-class activities, guidance, and interpersonal relationships, and everything that is planned by school.

As per Wiles and Bondi (2007), it is an active phenomenon that can vary depending on context and need. Curriculum is a dynamic phenomenon, strongly influenced by the environmental and personal influences that impact on curriculum, especially in its design and implementation.

Different approaches for curriculum designing are as follows
a) Subject Centered Approach
b) Learner Centered Approach
c) Problem Centered Approach
d) Competency based Approach

a) Subject Centered Approach
One of the most widely used curricular approaches is the subject-centered approach. In this design the curriculum is planned around separate subject areas or disciplines. This design helps a secondary school level student to develop interest and competence in one subject area. This orientation to subject matter reflected a mental discipline approach to learning thus mastery of subject and skills forms the basis for learning objectives. In this approach, significant curricular components like aims, learning activities, etc., are lost sight of. It emphasises content coverage, and consequently encourages memorization and the acquisition of information. This is an easy approach to building a course, but it pays little attention to learners' needs.

b) Learner Centered Approach
It emphasize that all school learning should be geared around the needs, interests and abilities of the learners. The major purpose behind this approach is to help learners come to grips with issues in their lives and be prepared for the present. The basis of Learner-centred approach is individual learners and their needs. In this approach, the curriculum evolves as the teacher and learner work together on the learning tasks. This approach is characterised by the following features: i) Learners' own interest and needs are identified to shape the curriculum. ii) Planning and activities are the joint responsibility of teachers and learners. In Teacher education the learner are adults and looking for teaching profession. So in teacher education curriculum learners need is to develop teaching skills for their teaching profession.

c) Problem Centered Approach
The primary objective of using this approach is to create in the learners an awareness of crucial social issues and develop skills to help solve such problems. Some problem centered approaches focus on persistent life situations, others deal with contemporary social problems, some address areas of living and some with the reconstruction of society. Problem centered curriculum designs are designed to address societal needs that are unmet and also for preservation of culture. It focuses on the issues of actual life, individuals and society. Unlike the learner-centred designs, the problems are pre-planned, and yet they cater to learner' needs and experiences. As such they focus on both the content and the needs and experiences of learners. Teacher education curricula give emphasis both on knowledge and skills. For example, Teacher education curricula give importance to training personnel who directly take part in teaching profession. Curriculum plans for teacher education might focus on teaching skill development, critical thinking, communication, self-identity, global awareness, democratic learning etc.

d) Competency based Approach
The competency-based curriculum represents an approach to instructions, which emphasize the application of the knowledge in a manner, which may be observe or measured. Competency based curriculum guides focus on a comprehensive view of each course of study, which is delineated into its essential components listing of most important objectives to be mastered and competencies which every student should be able to demonstrate often instruction is completed. Competency based lesson, which change the students in activities designed to apply learning with an increased emphasis on higher order thinking skills. Students are evaluated not only on knowledge, but also primarily on their ability to perform tasks associated with knowledge acquired. (Kumar and Parveen, 2013) [6].

A competency-based curriculum is one in which learners develop their understanding in ways in which they can apply this in practical situations. A competency-based curriculum goes beyond simple recall of information: the focus is on competencies, such as communication, judgement, analysis and problem solving. These are often developed through traditional subjects: language, maths, science, history for example. It promotes what are termed higher order skills (DEVCO B4 Education discussion paper, 2014) [2].

A competency-based curriculum is one that is focussed on learners acquiring competencies to apply knowledge, rather than knowledge itself. The outcomes are what pupils can do. A key debate around curriculum is the balance between what is often termed an academic curriculum that focuses largely on specific subject knowledge and a more comprehensive curriculum that actively promotes the development of broader competencies, such as problem solving, initiative, and creativity. There is often a real tension between the desire to achieve very direct and measurable outcomes such as basic literacy and numeracy (particularly in the context of current concern around learning outcomes) and the wider skills and competencies required by a modern, flexible knowledge-based economy. A good, balanced curriculum will achieve both, but success requires high levels of teacher skills, diverse classroom approaches and substantial resources.

There are another four models of the curriculum:
1. Content driven curricula: According to Bernstein (1975), the key concept is discipline, which 'means accepting a given selection, organization, pacing and timing of knowledge' in the pedagogical relationship between the teacher and the taught in order to cover the curriculum. Knowledge is transmitted in a situation where the teacher has maximal control (Westbrook, 2013) [8].
2. Process driven curricula: According to Ross (2000), in which the content areas stand in an open relation to each other. Students have more discretion over what is learnt compared to individual teachers, who have to collaborate with colleagues from other disciplines. Process-driven curricula include a range of models - cross-curricular, integrated, interdisciplinary, thematic. Multiple forms of assessment are used, with a focus on formative, personal, coursework-based and open-ended assessment (Westbrook, 2013) [8].
3. Objectives driven curricula: According to Tyler (1949), Objectives-driven curricula are structured around sets of expected learning outcomes, which are written by specifying the kind of behaviour as well as the context in which that behaviour is expected to operate, e.g., comprehending, applying, analysing, starting with lower-order objectives and moving to increasing levels of complexity (Westbrook, 2013) [8].

4. Competence or outcomes-based curricula: According to Botha (2002), Competence or outcomes-based curricula are structured around sets of learning outcomes that all learners are expected to be able to achieve successfully at the end of their learning experiences (Westbrook, 2013) [8]. Specifies what we expect a pupil or student to know or be able to do after a period of study. Outcomes may include competencies, or they may just relate to knowledge.

Teacher education and the four pillars of education
These pillars cannot be defined separately; they form an integrated whole, complementing and strengthening each other. Education is a total experience, it can be explained by the UNESCO report Learning: The Treasure Within, where The Four Pillars of Education are discussed.

Learning to know: 'Learning to know' lays the foundations for life-long learning. This pillar refers to the basic knowledge that we should be able to understand our environment and to live in dignity. This pillar also involves arousing curiosity, which allows us to experience the pleasures of research and discovery. It challenges us to combine a sufficiently broad education with the in-depth investigation of selected subjects. Learning to know obviously presupposes that we will develop the powers of concentration, memory, and thought: in short, it assumes that we will learn to learn.

Learning to do: 'Learning to do' refers to the acquisition of practical skills, as well as to an aptitude for teamwork and initiative and a readiness to take risks. As such, this pillar involves the competency of putting what we have learned into practice in order to act creatively on our environment. Diverse situations are bound to arise, many of which are unforeseeable. When this happens, learning to do enables us to turn our knowledge into effective innovation.

Learning to live together: 'Learning to live together' is the pillar that UNESCO emphasises more than any other. It refers first to developing an understanding of others through dialogue, thereby leading to empathy, respect and appreciation. If we are to understand others, however, we must first know ourselves. Learning to live together thus also involves recognising our growing interdependence, experiencing shared purposes and implementing common projects and a joint future. Only then will it be possible to manage the inevitable conflicts in a peaceful way.

Learning to be: 'Learning to be' is founded on the fundamental principle that education should contribute to the holistic development of each individual. This pillar addresses the need to broaden care for each aspect of the personality. It deals with allowing the freedom of thought, feeling and imagination that we need in order to act more independently, with more insight, more critically and more responsibly. The aim of education is to discover and open up the talents that are hidden as treasures within each person (Delors, 1996) [3].

Secondary Teacher education and the four pillars of Education
In our view, institutes for teacher education have the responsibility and the opportunity to make current and future teachers aware of the importance of both the Four Pillars and UNESCO's fields of interest. With regard to the Four Pillars, we believe that institutes for teacher education should not only teach about these pillars, but should also use them as guidelines for establishing powerful learning environments. With regard to the pillar of 'learning to know', institutes for teacher education should be able to create learning environments for their students that focus on 'deep level learning'. If they want to be more than simply 'deliverers of knowledge', future teachers should be stimulated to explore the world. They should have the competencies necessary to trigger curiosity in their pupils and students. In the same spirit, learning environments must be created in which 'mastery proceeds performance'. Future teachers should also be more than merely 'collectors of grades', and they should be eager to be life-long learners. They must have the competencies necessary to arouse the curiosity of their students in order to shape them into critical citizens. If they are to contribute meaningfully to the pillar of 'learning to do', it is important for future teachers to be faced with challenging tasks throughout their education. Because we expect teachers to be innovative and creative professionals, we must offer them opportunities to try new methods and to explore their own skills and competencies. It is therefore necessary to create learning environments in which trainees are challenged to do things differently and in which they are challenged to take risks and to look for new ways of learning and teaching. In these environments it is not ok to play it safe, and trainees should not be afraid of initial failure. 'Learning to live together' is involvement in common projects which can be an effective means of avoiding conflict or resolving latent conflicts. Throughout their education, therefore, future teachers should have opportunities to collaborative on common projects, not only within their institutes of teacher education, but also in authentic global and local projects. "Education should contribute to every person's complete development – mind and body, intelligence, sensitivity, aesthetic appreciation and spirituality". This is the focus of the pillar of 'learning to be'. To realise this goal, every institute of teacher education has the responsibility to create learning environments that challenge all aspects of the whole personality of every student.
Two-year secondary teacher education curriculum is an innovative, learner-centred project, which also uses UNESCO's vision on the Four Pillars of Education as the structuring principle of the curriculum. Each pillar is explored from the perspective of both the learner and the educator. The content of each course is inspired by key themes in UNESCO's education programs for culture, education and sciences.

Approaches suitable for curriculum designing in secondary teacher education programme
An ideal curriculum ought to touch all aspects of the life of the pupil, and extend an environment which should be educationally congenial to them.
Secondary teacher education programme helps to prepare teachers who can effectively teach in secondary schools. So Secondary teacher education curriculum should be equipped with appropriate content knowledge, proper training, attitude, values and experience all these by active participation of learner. Teacher educators should successfully transact the curriculum and help student teachers to achieving the curriculum objectives. The content

of the curriculum should be activity based. The content included in the B.Ed. curriculum help to develop the teaching skill, attitude, behaviour and values which is necessary for a competent teacher. In Pre-service training learner's involvement in curriculum is necessary and right type of training should be provided in order to enable them to be reflective practitioner.

In Teacher education the learner are adults and looking for teaching profession. So, in teacher education curriculum learners need is to develop teaching skills for their teaching profession.

Teacher education curricula give emphasis both on knowledge and skills. Teacher education curricula give importance to training personnel who directly take part in teaching profession. Curriculum plans for teacher education might focus on teaching skill development, critical thinking, communication, self-identity, global awareness, democratic learning, cooperative learning, decision-making etc. So, teacher education curriculum should more emphasised on problem solving approach.

Teachers need a profound knowledge of the most recent advances of research in the subjects they teach. In addition, they need to be familiar with the latest research on how something can be taught and learnt. Interdisciplinary research on subject content knowledge and pedagogical content knowledge provides the foundation for developing teaching methods that can be adapted to suit different learners.

One of the most important roles of teachers is to open pathways to cultural richness and understanding. Teachers have to be familiar with the most recent knowledge and research about the subject matters. They also have to know how subject matters can be transformed in relevant ways to benefit different learners and how it can help learners create foundations on which they can build their lifelong learning. This means that teachers need the latest research results and knowledge in pedagogy. They should have a thorough understanding of human growth and development and they need knowledge of the methods and strategies that can be used to teach different learners. In addition, teachers have to be familiar with the curricula and learning environments on educational institutions. They also have to know about learning in non-formal educational settings, such as in open learning and labour market contexts. Teachers should have the latest knowledge of educational technology and they need to be able to apply ICT in their work. Today's teachers and teacher educators are being required to act as responsible educators in a multicultural society. The need to understanding different subcultures, religions and values is causing new and difficult demands to teachers and teacher education

Nowadays, Teachers need meta knowledge of learning processes: they have to know what learning is from different theoretical viewpoints and how learners can be supported to find strategies to handle their own learning and to become active learners. They also need meta knowledge of collaborative learning processes. This involves knowing how knowledge can be construed in co-operation with others and knowing what the social components of learning processes are (Niemi, et. al., not found). Teachers have an important role in advancing intercultural understanding and mobility. Teachers also need to be aware of value contradictions in society and educational institutions and they should be prepared to deal with moral and value-based

issues. Teachers are key actors in promoting human rights, justice and democracy in a global world (Aloni, 2002). High quality pedagogical skills and reflection as a bridge between academic and professional development. Teachers needs a critical mind and the ability to reflect. The fact that many decisions have to be taken very rapidly, in action, requires that teachers have internalised the professional knowledge and moral code that are needed in acting in changing situations.

Secondary teacher education must design programmes that would help prospective teachers to know and understand deeply, a wide array of things about teaching and learning and in their social and cultural contexts. Teaching to live together is synonymous with developing an understanding and appreciation of interdependence in sprit of respect for the value of pluralism, mutual understanding and peace. Secondary teacher education curriculum should develop an understanding and appreciation of interdependence in sprit of respect for the value of pluralism, mutual understanding and peace. Furthermore, they must be able to enact these understandings in complex classroom situation serving increasingly diverse students (Kumar and Parveen, 2013) [6].

Nowadays Secondary teacher education programme have to prepare competent teachers who have a whole new set of resources and techniques that evolve around the use of technology. Teachers at Secondary teacher education programme should be given the opportunities to teach in modern classrooms for gaining the practical experience related to technology also (Gupta, 2015) [4].

Secondary teacher education programme plays a pivotal role in developing certain characteristics within the pupil teachers. Those characteristics are related mainly to the attitude, skill and comprehensive outlook of pupil-teachers.

NCTE developed two year curriculum for teacher education at the secondary level for different universities, reflects major change in the content and themes included in various courses of studies that have considerable possibility of developing reflective teachers with the ability to comprehend the applied nature of education, and utilise the knowledge gained through teacher preparation courses in actual classrooms, thereby bridging the gap between the un-relatedness of actual classroom realities and theoretical discourses of a training institution.

Two-year secondary teacher education curriculum divides into three broad areas: 1. Perspective in Education, 2. Curriculum and Pedagogic studies 3. Engagement with the field.

The practicum permits the demonstration of mastery of instructional, non-instructional and interpersonal competencies under supervised actual classroom conditions. Previously there is a difference between what is taught in Teacher Education Institution and the real situation of classrooms and schools. Richard Elmore (2006) stated that teacher education is "dissociated from the current practice ... prevent theory from becoming shrivelled and dry if they become divorced from practical." Diane Ravitch (2008) argues that there are many well-intentioned teachers who have a superb education but are unable to get across what they want their students to learn. These people have a secured knowledge of their subject but are unable to figure out how to teach it in ways that adolescents understand. So, teacher learners "need a certain foundation of pedagogical content knowledge so that they can know how to teach what they know to the children in their care, thus building

professional commitment."

2. Conclusion

In this study, researcher attempted to look at teacher education from the perspectives of approaches of curriculum design and actually which approach is following by the present secondary teacher education curriculum. After the changes occurred in one-year secondary teacher education programme and, consequently, a paradigm shift helped to rethink teacher education. It was observed that the two-year secondary teacher education curriculum follows the Problem-solving approach and competency-based approach where teachers preparing for teaching in diverse school settings. Curriculum, instruction, and assessment are organised in a way that makes sure that this learning ultimately happens. It is considered to produce life-long learners who can better adapt to the world of work, and is considered inherently more democratic.

3. References

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