

The Interrelationship between The Curriculum of Mathematics Education Under D.El.Ed. Programme and Mathematics Course at The Primary Level in West Bengal

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Abstract

Primary education is the base of all education .One of the dimension of quality education is the mathematics education. Recent survey of NAS ,Pratham and Uthkarsha Avijan indicates the slandered of mathematics education of our primary students, In the age of RTE Act-2009 we must ensure the quality of mathematics education also. NCF-2005, Draft NPE-2016 also stress in the mathematic education. NCTE two year D.EL.Ed course two year from 2014, There are many reform in the curriculum of mathematics education. The study is analytical type and qualitative in nature. Population is the all the students of primary education. Sample is student of twelve primary school from three different district. Data is collected from primary school, DIET, D.El Ed college and discussion of Teacher ,and classroom observation. Objective of the study Objective of the study are i)To find out the objectives of Mathematics Education mention in the curriculum of D.El.Ed. Programme.ii)To find out the objectives of Mathematics courses introduce in the primary level.iii)To study the relationship between the objective of Mathematics Education as mentioned in D.El.Ed. curriculum and objective of mathematics Education at the primary . After analysis the primary and secondary data conclusion is reached.There is no gap between the objective of Mathematics Education as mentioned in D.El.Ed. curriculum and objective of mathematics Education at the primary .

Key Words: NCTE, D.El.Ed, Mathematics Education, Internship.

Introduction:

Primary education is the base of all education .One of the dimension of quality education is the mathematics education. Recent survey of NAS ,Pratham and Uthkarsha Avijan indicates the slandered of mathematics education of our primary students, In the age of RTE Act-2009 we must ensure the quality of mathematics education also. NCF-2005, Draft NPE-2016 also stress in the mathematic education. NCTE two year D.EL.Ed course two year from 2014, There are many reform in the curriculum of mathematics education..India is 33% World population 2.25 total land 125 core population .Till date achieving universal primary education is till dream. At present Literacy rate is 68%.As per Vision 2020 basic aim is 100%

literacy. Right to Education Act (RTE-09) enacted for free and compulsory elementary education from April 2010. No detention policy is started in primary level. Till drop out at primary level is 44% and never enroll is 75. At present untrained primary teacher in our country is 14 lacks 97 thousand 859. and in WB it is 1 lacks 69 thousand 8 only as per press conference of MHRD minister on 3 rd oct 2017.

Literature Review:

NCF-2005 In the chapter V Systemic Reform in Teacher Education for curriculum Renewal remarked that “the major shift is in the teachers’ role where he/she assumes a position centre stage as a source of knowledge, as custodian and manager of all teaching learning processes, and executor of educational and administrative mandates given through curricula or circulars.” He will be a facilitator, of transforming information into knowledge / wisdom, as a supporter in enhancing learning through multiple exposures, encouraging the learner to continuously achieve his/her educational goal.

Draft National Educational Policy(2016):

Re-vamping Teacher Education for Quality Teachers as follows New curriculum framework for Teacher Education, 2014 of two year duration at primary and secondary levels includes Ethics, Arts & Crafts, Music, Physical Education and life skills to ensure all round development of children.

2. Syllabus for pre-service and in-service teacher education to be revised duly incorporating the areas of sustainability, Democracy, RTE Act 2009 & its implications, child rights POSCO eliminating child labour, corporal punishment, Juvenile Justice, Career counseling and life skills.

3. For ensuring availability of adequate number of teacher, the second year of the programme can be used as intern in the schools where teacher shortage is acute and they may be provided a stipend for this purpose is done for the medical trainees.

4. Teacher education institution also need to be staffed with qualified teacher educators with orientation to evolving challenges in education.

NUEPA has started the “Shaala Siddhi” that is national Programme on School Standards and Evaluation (NPSSE) in India from 2016. In Key Domain –IV they placed ‘Managing Teacher Performance and Professional Development’.

1. Orientation of New Teachers.
2. Teachers Attendance.
3. Assigning Responsibilities and Defining Performance Goal.
4. Teachers Preparedness for Changing Curriculum Expectations.

5. Monitoring Of teachers' Performance.
6. Teachers Professional Development.

Definition of Important Terms:

Mathematics Education: Mathematics education is the practice of teaching and learning mathematics. It is not only confined to school level but it extended its influence up to higher studies of mathematics and other subject where mathematics is being applied. It has to think of the nature of society, nature of children, the nature of teachers and the nature of mathematics.

Curriculum: Curriculum refers to the lessons and academic content taught in a school or in specific course, curriculum typically refers to knowledge and skills students are expected to learn which includes the learning standards or learning objectives they are expected to meet, the units and lessons, that teacher teach the assignments and projects given to student. In broadly séance curriculum is the process by which all round development occurred.

NCTE: The National Council for Teacher education was established by an act of Parliament (Act No 73 of 1993) 'with a view to achieving planned and coordinated development of the teacher education system throughout the country, the regulation and proper maintenance of norms and stander in the teacher education system and for matters connected therewith". Curriculum of D.El.Ed(Diploma in Elementary Education) courses is prepared by the NCTE.

Effective Teaching : Effective Teaching is the successful transference of knowledge and skill or application around a particular content. It ensures that the surface to learning is replaced by deeper. It encourage the students to develop the skill of understand.

Objective of the study are

- 1) To find out the objectives of Mathematics Education mention in the curriculum of D.El.Ed. Programme.
- 2) To find out the objectives of Mathematics courses introduce in the primary level.
- 3) To study the relationship between the objective of Mathematics Education as mentioned in D.El.Ed. curriculum and objective of mathematics Education at the primary .

Methodology:

The study is analytical type and qualitative in nature. Population is the all the students of primary education. Sample is student of twelve primary school from three different district. Data is collected from primary school, DIET, D.El Ed college and discussion of Teacher ,and classroom observation.

Data is collected from:

District	District Inspector of Schools (Primary)	DIET Principal	Math Faculty (Govt Institute)	Math Faculty (Private Institute)
Purulia	1	1	1	1
South Pargans	1	1	1	1
Malda	1	1	1	1

Objective of objectives of Mathematics Education mention in the curriculum of D.El.Ed. Programme:

- 1) In the two year D.El.Ed . course students teacher are got the knowledge what are the factors that play the main roll on the process of acquisition of mathematical knowledge at classroom situation.
- 2) Students teacher are empowered to develop deeper insight into the content of primary mathematics.
- 3) To grow up the various skills, teaching methods for effective children’s learning.
- 4) To develop a good understand regarding geometrical concepts.
- 5) To develop appreciation for algebraic thinking.
- 6) How joyful of learning is conducted in the mathematics classroom.
- 7) To develop the making evaluation norms so that students mathematic assessment is done in the classroom.

The objectives of Mathematics courses introduce in the primary level:

West Bengal Board of Primary Education has published the new mathematics books named as “My Mathematics” in class III& IV. The book s follows the guidelines of The National Curriculum Framework 2005 and the Right to Education Act 2009. In Class I & II there are only one book ‘Amar Boi” mathematics is included in it.

- 1) To develop an abstract idea through real and concrete concepts.
- 2) To create an activity based mathematics learning.
- 3) To create some logical concepts regarding the chapter through some practical problem related to the Childs’s familiar environment.

- 4) To encourage children by constructing mathematical problem so that they can relate them with what they see daily.
- 5) To solve mathematics problem mentally.
- 6) To develop four basic classroom learning

Present primary education based on the recommendation of NCF-2005 and RTE Act -2009. The classroom teaching of primary education stands on the following principals:

1. Learner Centric Education.
2. Learning without Burden.
3. Quality Education.
4. Equity and equality.
5. Values.
6. Joyful learning
7. Peer Learning.
8. Constructivist learning.
9. Activity Based Learning.

The relationship between the objective of Mathematics Education as mentioned in D.El.Ed. curriculum and objective of mathematics Education at the primary .

There are various type of Teacher Education Institute in our State. These are the main supply line of Primary teacher. In – Service and Pre - service teacher training is running .Regular Teacher ,Para teacher ,Private Primary school Teacher are enrolled in this Institute at present.

1. DIET
2. Govt D.El.Ed .Institute
3. Govt sponsored D.El.Ed .Institute.
4. Private D.El.Ed .Institute.
5. ODL Mode D. El. Ed . Course by WBBPE.
6. ODL Mode D. El. Ed . Course by NIOS.

During the Internship time students –teacher are perform some activities :

1. Analysis of school syllabus and textbooks.
2. Observing the classroom teaching of regular teachers.

3. Preparation of case study of internship school and the innovative activities that the school undertake.
4. Mobilisation and development of teaching – learning recourses.
5. Undertake a case study of a child.

But there are no compline monitoring reports recived from the districts and forwarded the consolidated report to NCTE.District level dose not monitor internship periodically and send reports to the state headquarters.

A Case Study is done on the Purulia District, Interaction with Primary School teacher, High School Teacher to know the lack of competancies of mathematics of the primary student. After four Year study in the primary school, What is the remarks of High School teacher on their student of class –V. In this case feeder primary school mathematics classroom teaching is observed. There are various out come is reviled ;

1. Language Problem.
2. Low competences in mathematics.

District	Purulia	Block –Bandwan,
Sl No	High School	Feeder Primary School
1.	Dr. A.N. Jha High	Bandwan Board Pry
2.	Bandwan Girls High	Mudlhi pry School
3.	R. N. C. Vidyapith	Woblodi Pry School
4.	Kuachi High School	Strish Gora Pry School
5.	Kallabera Jr High Scool	Kallabera primary School.

Findings: After the implementation of RTE Act -2009 being a primary teacher teacher education is must. But these two aim of mathematics education is not conversed in the the classroom output .

- 1) The aim of mathematics education in NCTE ,WBBPE and Regular and ODL Mode curriculum is same. Mathematics curriculum is very good.
- 2) Monitoring system is not up to the mark in the various teacher education programme,
- 3) lack of teacher in the primary school hamper the create the aim of mathematics education at primary level.
- 4) Formative and summative evaluation is not not properly used in the primary classroom.
- 5) Classroom inspection by school teacher is very much needed.
- 6) First Inductive method then deductive method is not follow in the class room though it is taught in the teacher education programme.

- 7) Over load of the teacher make a negative impact on mathematics teaching,
 8) CCE for special Childs is not framed for mathematics classroom teaching in regular schools.

Conclusion:

At present NCTE gives the empathises the quality teacher education .quality teacher gives the quality education .Enhancing the mathematics capabilities at the primary level teacher education curriculum mainly mathematics curriculum play a vital role.Beside this Mathematics psychology of learning is very much needed.CCE on CWSN student is not properly placed in the teacher education curriculum. ITC and smart classroom is very helpful to increase the mathematics abilities of the student at the primary level .This must be included in the teacher education curriculum. There is no gap between the objective of Mathematics Education as mentioned in D.El.Ed. curriculum and objective of mathematics Education at the primary .

References:

- Annual Status Of Education Reports (ASER),2010-2012
 Boards of School Education Haryana ,Bhimai development Mathematics Curriculum
 Ediger and Rao (2011) ,The Encyclopedia of Teaching Mathematics(vol-7) The objective in the Mathematics Curriculum
 Madhaya Pradesh Bhoj University,www.mpbhoj.gov. in
 Naik J.P. (1966), *Elementary Education In India –The unfinished Business*,Asia Publication House ,New Delhi.
 Naik, Shweta.(2012) *Mathematics Teacher Education in India- Demanding change and reform in teachers professional development*. Mumbai, Homi Bhabha Centre foe Science Education.
 National Achievement Surveys (2014) (NAS)
 NCF 2005 Position Paper on the Teaching of Mathematics (NCERT,2006a)
 NCFTE-2009 Teacher Education Curriculum .
 Right of Children to Free and Compulsory Education Act 2009
 State council of Educational Research and Training Of Telangana
 Srivastava R.C. (1997),*Teacher Education in India issues and Perspectives* Regency Publication,New Delhi
 Teacher Education Framework as per NCERT 1977
 Utkarsha Abhiyan 2013 in West Bengal.www.wbsed.gov.in
 Vision of Teacher Education in India Quality and Regulatory Perspective (2012) MHRD ,GOI