

Textbook Development Process in Andhra Pradesh

Abstract

This paper is about the effort of the State of undivided Andhra Pradesh to develop a curriculum framework document that would be in line with the National Curriculum Framework-2005 along with the position papers of the National Focus Groups developed during NCF-2005 exercise. The State based its efforts towards better syllabi and textbooks along with improved classrooms on the substantial work done earlier on its teacher capacity building and school support systems. The NCF-2005 and the position papers attached with it for the first time laid out in so much detail what was expected and needed from all aspects of the system and spelt out the directions and the focus areas. This encouraged us to use it as an opportunity to analyse what we had done in the light of our needs and situation in the State. We then worked on those ideas with a big team and drew upon our experience and knowledge to make the State Curriculum Framework, position papers and the syllabus. This exercise was followed by textbook writing. The effort to transform educational process was spread over many years and involved a committed and dedicated effort of the state team with the support of extended team.

Introduction

Appropriate curriculum is one of the important enabling conditions to improve quality of School Education. Curriculum Framework reflects the vision, mission and goals of education in the State without which education will be an aimless, direction less activity. The undivided State of Andhra Pradesh developed a State Curriculum Framework in 2011 and subsequently the syllabus and textbooks to transform the educational process. This effort had stated earlier at the primary and elementary level with the extended support of several state and national institutions as well as resource persons.

The State in this utilised the experience gained during different projects and activities. We discuss the process and the learnings in the followings sections:

The Experiences of Implementing Basic Education Projects in the State:

Many basic education projects have been implemented earlier in Andhra Pradesh, i.e. Andhra Pradesh Primary Education Project (APPEP), District Primary Education Programme (DPEP). Further the programme of Sarva Shiksha Abhiyan (SSA) is being implemented in the state since 2001. The basic focus of these projects was to improve the quality of teaching learning process through teacher support mechanisms including in-service training programmes. Several innovative practices have been undertaken during the programme implementation. These improvement processes were added on to the existing curriculum and textbooks. Prior to the

curricular reforms the textbooks were information oriented and loaded with content. The teachers were expected to develop learning tasks on their own based on content matter given in the textbooks. The curriculum and textbooks did not appropriately support implementation of child centered and activity based approaches. Only few motivated teachers were able to develop learning tasks and implement child centered pedagogy in schools.

1. Alternative Schools and Innovative Pedagogies

Besides, several alternative pedagogic processes like National Child Labour Project Schools (NCLP) have been implemented. Some of the strategies of these alternative schools worked effectively in improving the classroom processes and learning outcomes. Collaboration with several NGOs for implementing quality initiatives viz., Early Language and Mathematics programmes: Bridge courses for the out of school children with alternative pedagogical strategies, production of primers for adult education, etc. have proved the effectiveness of certain pedagogical strategies.

2. Activity Based Learning and Individualized Instruction

The state also developed and implemented self-learning interactive material for early grades (ABL form). These were competency based workbooks. The trialling and use of the workbooks also helped in deepening the understanding of how such materials can be developed and used in and with the textbooks.

3. Learning Enhancement Programme with a Focus to Improve Basic Foundational Skills of Reading, Writing and Arithmetic

The government also recognized the

need for active engagement and focus on learning of language in the early grades. These were called Children's Language Improvement Programme (CLIP), Children's Language Acceleration Programme (CLAP). These exercises also developed an understanding of materials and the possibility of their use in textbooks. Separate programs including basic ideas in mathematics and science were also developed.

It was decided to incorporate the understanding of these practices and innovative strategies of pedagogy into the system through new curriculum and textbooks.

Bringing in the RTE 2009 Perspective

The SCERT was declared as Academic Authority for School Education to take up curricular and evaluation reforms and support the teachers and field functionaries for the effective implementation of curriculum.

The existing classroom process and children engagement is not satisfactory. Though several training programmes have been organized to shift the teaching learning process from traditional, textbook oriented to participatory one and engage children in meaningful learning tasks rather than engaging them in copying information from the textbooks.

SCERT is expected to review school curriculum as a regular activity ensuring the highest standards of rigour. National Policy of Education 1986, National Curriculum Framework 2005 and Right to Free and Compulsory Education Act 2009 assign a special academic role to SCERT in preparing and promoting State Curriculum Framework. The State Government took a decision to take up curricular and evaluation reforms based on NCF-2005 and RTE-2009. Accordingly, the SCERT initiated curricular reforms

starting with development of State Curriculum Framework followed by revision of syllabus and textbooks.

State Curriculum Framework (SCF) Structures

The Government setup a State Advisory Committee (SAC) with 30 members with a Chairperson and Co-Chairpersons. SAC also invited special invitees representing various sections i.e., Teachers, Teacher Educators, Administrators, Public Representatives, NGOs, etc. A State level Steering Committee (SSC) was set up with experts to draft the state curriculum framework. The SAC was supported by 18 State Level Focus Groups, who prepared drafts of 18 well researched Position Papers and a State Curriculum Framework. The draft State Curriculum Framework and Position Papers were kept on the website of SCERT for public comments.

The SCERT then conducted workshops at Regional/ Districts level in the DIETs to discuss the curriculum framework, Position Papers and invited suggestions/ modifications.

- All the suggestions received through e-mails and workshop deliberations, recommendations across different sources were consolidated and placed before the focus groups and steering committee for discussion and incorporated appropriate suggestions and finalized leading to the SCF-2011, Fourteen Position Papers, Syllabus and Academic Standards.
- These documents were approved by the State Advisory Committee.

Curriculum- Key Principles and Key Aspects of Change

We took the following steps based on the SCF 2011.

- Evolved academic standards – class wise and subject wise along with learning indicators.
- Aligned curriculum standards to textbooks, instructions and assessment principles.
- Evolved Comprehensive assessment system with a focus on core state standards/ outcomes with detailed Formative and Summative strategies. We must pointed out that the curricular reforms not only ended with revision of textbooks, but continued. It led to a major shift in the nature of understanding and practices in the following areas:

Approach to subjects and ways of teaching and learning including classroom process.

The shift in assessment and academic standard.

The shift in the role of the teacher, learner and the textbook.

The shift in the pre-service teacher training.

Formation of Subject- Specific Committees for the Revision of Syllabus and Development of Textbooks from Classes I to X.

Consequent to finalization of State Curriculum Framework and Position Papers, a decision was taken to revise the existing syllabus for all school subjects from classes I to X and revision of textbooks.

State Curriculum Framework and Position Papers formed the basis for the revision of syllabus and textbooks. Subject specific Editorial Boards were constituted with experts from National and State Level who worked earlier with the state in DPEP, SSA, etc. Teacher educators and practicing teachers of the State Resource Group (SRG) and District Resource Group (DRG) were also invited to the committees.

A. Participation of National Level Institutions and Individual Experts in the Textbook Development Process

National Level institutions and individual experts were identified based on their experience of such work across the Nation.

The National Level institutions and NGOs, identified were:

- Vidya Bhavan Society, Udaipur
- Homi Bhabha Centre for Science Education, Mumbai
- Eklavya, Madhya Pradesh
- NCERT, New Delhi
- Regional Institute of English South India (RIESI), Bangalore
- SCERT, Kerala
- English and Foreign Language University (EFLU), Hyderabad
- Hyderabad Central University (HCU), Hyderabad
- State Universities like Osmania University, Kakatiya University, Andhra University, SV University, Dravidian University, etc.

B) Selection of Textbook Writers

An advertisement was placed in the local newspapers seeking teachers application from government and private schools teacher, teacher Educators for becoming textbook writers. The editorial boards of the subjects scrutinized the applications and draft lessons sent by them and finally select the team.

C) Capacity Building of Textbook Writers

The first workshop for the revision process was a capacity building exercise. The areas focused were curriculum mapping, meaning of syllabus, nature of knowledge, how children learn, different types of learning materials, learning tasks, etc.

Following this syllabi were developed and subject specific work began.

- Vidya Bhavan Society oriented the textbook development groups in the subjects of Mathematics, Science and Indian languages and guided the entire process of syllabus and textbook development from classes I to X. Certain workshops for these groups have been conducted at Vidya Bhavan Resource Centre duly utilizing their enriched library and other related sources. Several experts from HBCSE, Delhi University, RIESI (Bangalore), EFLU (Hyderabad), NIIT and Osmania University, Eklavya, Vidya Bhavan and SCERT itself participated in the exercise.
- The Eklavya group and NCERT trained the curricular group of Social Studies and guided the entire process of syllabus and textbook development from classes VI to X.
- The Regional Institute of English at Bangalore and SCERT, Kerala trained the curricular group in English and guided the entire process of development of English language textbooks from classes I to X.
- Homi Bhabha Centre for Science Education, Mumbai trained the curricular group in the EVS and guided the process of textbook development of EVS.

D) Steps in Writing the Textbooks

Following steps were followed for the development of textbooks.

- Reading the National Curriculum Framework and State Curriculum Framework by the textbook writers.
- Reading and understanding the Position Paper of the concerned subject by the textbook writers with the editors – Discussion and

deliberations on various terms and concepts.

- Discussion on and understanding of the Academic Standards.
- Analysis of existing textbooks and seeing how far they reflect the nature and objectives of the subject.
- Analysis of the textbooks of NCERT and other States like Chattisgarh, Bihar, Kerala, Tamil Nadu and Gujarat.
- Procured reference books from various libraries including the SCERT library.
- Map the syllabus of particular grade and discuss the unit-wise sub-concepts and chapterisation and detailed concept mapping across grades.
- Discussion on guidelines and principles based on which textbooks need to be developed, design and structure of the unit and approaches in writing the textbooks keeping in view how children learn and participate.
- Discussion on the experiential activities such as experiments, projects, field visits to be incorporated in the textbooks.
- Checking the number of hours required vis-a-vis and the content load.
- Discussion on the balance across content knowledge, skills, attitudes to be represented in the syllabus.
- After this chapters were allocated to the textbook writers in groups. Once the chapter was developed, it was given to other groups for review. After this illustrations, boxes and tables were discussed with the designing computer graphics/team.
- Following this, researchers and field

level persons were also invited to read the chapters and interact with the textbook writers and editors.

- The textbook writers then conducted a pilot study in their schools on the chapters written and shared the opinions of students and other teachers in the workshop in the presence of editors and other textbook writers.
- Then the step of page making, designing of the textbooks in all aspects was done and draft chapters were developed for subject teachers from the schools to read and give suggestions.
- The last step was the translation of textbooks in to seven other languages used in the state (that included both Andhra and Telangana) with language and subject experts.
- Then final copies of the textbooks in the form of soft and hard copies were given to the Director, Govt. Textbook Press for technical aspects of editing, font size, textbook size, colour compositions which were sent back to Director, SCERT for improvement.
- Finally textbooks in the form of soft and hard copies were submitted to the Director, Govt. Textbook Press for printing.

Guiding Principles for the Development of Syllabus and Textbooks as per SCF-2011

The following are the key principles used in this exercise:

- Keeping the potential of the child to learn always in focus,
- Respect the systems of knowledge such as languages, children bring to school,
- Connect knowledge to life outside the school; children should not feel

that what they are learning at school has no relevance to their lives,

- Ensure that learning is shifted away from rote methods and the focus should be on interactions, project work, analysis, etc.
- Enrich the curriculum to provide for overall development of children rather than remain textbook centric,
- Make examinations more flexible and integrated into classroom life; more focus on assessment for learning than assessment of learning,
- Promote social constructivism, issue-based curriculum and critical pedagogy across curricular areas,
- Nurture flora and fauna and respect for bio-diversity and social diversity, respect to the work as a part of school curriculum, and
- Locate classroom practices in the languages and cultures of children.

The New Textbooks - Perspectives

- The new textbooks focus on the process of learning duly engaging the learner and reconstruct knowledge as a part of syllabus/ content of learning.
- Textbooks facilitate and promote dynamic engagement of children with the world through observation, feeling, reflecting, acting and sharing.
- Move away from information/ facts orientation and try to locate facts in the process through which they come to be known.
- The curriculum enables the children to find their voice, their creativity to do things, ask questions, to pursue investigations, sharing and integrating their experiences with

school knowledge rather than ability to reproduce textual knowledge. Thus, the textbooks reflects active pedagogy.

- The new textbooks provide opportunities to the children to learn in a variety of ways through experience, making and doing things, experimenting, reading, writing, discussion, asking, thinking and reflecting, etc. both individually and with others.

What worked well

The entire process of curriculum development from the development of SCF 2011 to the textbooks has had the following positive signals:

- There is appreciation for the new textbooks in the field.
- The thematic approaches used where each unit has a theme and all the activities are elaborated accordingly is resonating with teachers.
- Space provided for interaction, practice, collaboration and sharing, reading, and referencing has led to energy in the classroom.
- Textbooks are now facilitative of active engagement of children in learning through activities, projects, dialogue and discussions, explorations, case studies, etc.
- The focus on the academic standards during instruction as well as at the time of assessment has helped teachers to see curriculum standards merging with the assessment standards.

Production of Textbooks

Production of textbooks in eight languages become an Hercules task. The textbooks are printed through outsourcing based on a tendering process. The State Government

procures the paper and provides to the printer for printing of textbooks. The textbooks are multi-colour and provided to all children from class I to X studying in schools under Govt. Management and Govt. Aided private schools.

Implementation of the New Curriculum and Textbooks

The curriculum documents i.e., State Curriculum Framework, Position Papers and new textbooks have been placed on the SCERT website for wider circulation. A request was made for feedback on the revised textbooks for further improvement in the subsequent re-printing.

The curriculum framework and position papers have been translated into local languages such as Telugu and Urdu. Syllabus has been developed subject-wise incorporating the guiding principles of textbooks development and transaction, expected academic standards and related teaching learning processes. Useful articles on pedagogy of the subject along with useful website for reference have been included in the syllabus. The state curriculum framework, subject specific position papers and syllabus books have been printed and provided to school libraries.

All the Teacher Educators working in the DIETs, CTEs and IASEs have been oriented by the SRGs on the curricular reforms with a focus on academic standards. All the Head Masters and teachers of primary, upper primary and high schools have been oriented on the salient features of State Curriculum Framework, Position Papers and on the guiding principles based on which textbooks were developed.

The philosophy and expected strategies for the transaction of the new textbooks have been discussed in the teacher handbooks followed by teacher training. Teacher handbooks have been

developed subject-wise separately for primary, upper primary and secondary level duly discussing the quality of classroom transaction with a focus on strategies for children engagement and supporting individual child who are struggling for learning.

Based on the State Curriculum Framework, the state has formulated pupil assessment procedure in the form of continuous and comprehensive evaluation. The focus is on assessment for learning with stress on formative assessment procedures such as projects, experimentation, book review, discussion on contemporary social issues etc. Ban on the nature of questions have been changed with open ended, reasoning and analysis with a focus on developing critical thinking and problem solving, creativity and imagination, communication and collaboration, etc.

The Government has issued orders banning on the use of all types of guides, guide type study material in the schools. Ban on the practices of teachers such as dictating notes and writing ready made answers on blackboard, etc., have improved the time-on-task and whole class activities with active teacher-pupil interaction. Children have to read the lessons, understand and express on their own rather than memorization. The rote learning is discouraged and almost not in practice because of examination reforms.

Issues and Challenges from the Perspective of NCF 2005

The perspective of NCF in implementing constructivist pedagogy is not being understood properly by the teacher educators and as well as other support staff at block and cluster level. The system almost failed in modeling certain class rooms where constructivist pedagogy is being implemented. The

core principles of NCF 2005 and its implications to the teaching practices are not being understood properly. The State is taking concerted steps in making teacher educators/ supervisors and staff of professional support structures of various levels, in understanding the core philosophy of National and State Curriculum Frameworks and its implications to teaching-learning processes, assessment procedures, teacher support mechanisms, etc.

The change in classroom transaction is gradually shifting from information giving mode to children engagement. Though the textbooks have been developed incorporating various activities, projects, inquiry methods to facilitate children in engaging during the curricular transaction, but the spirit is not being percolated and teachers are not on continuous professional development path to understand the philosophy of curriculum and principles based on which the textbooks have been developed.

Other Challenges Faced

- Providing adequate resources for the implementation of new curriculum and textbooks.
- Equipping the textbook writers to produce in tune with the NCF and SCF. A shift from information mode to knowledge.
- How to create more space for children to think and construct their own knowledge?
- Making teachers, field functionaries and other supervisors to understand the curriculum shift and its implications.
- Curriculum transaction reflecting academic standards and developing standard based assessment procedures.
- Teacher preparation – Value addition to the textual material in

terms of new examples, activities, questions, etc.

- Resources for teaching new textbooks – Equipping the schools with required teaching learning material to support teaching.
- Augmenting the professional support structures and make it more professionally oriented i.e. DIETs, BRCs, CRCs and line department officers, i.e. DEO, BEO.
- The challenge of on job support to the teachers as a follow up of trainings and orientation for effective implementation of new curriculum.
- Parallel structures for the same cause of improvement of quality of School Education i.e. SCERT, SSA, RMSA and District Collectors etc., working in isolation.
- Normative support to the SCERT from MHRD.
- Issue of decentralization and capacity building down the districts and sub-district level.

What did the Team Learn in the Process of Undertaking Curricular Reforms?

The state has formulated state core groups, subject specific resource groups and involved them in the development of State Curriculum Framework and position papers. The teams continued till the development of textbooks. The same teams have developed teacher handbooks and acted as State Resource Group members and oriented District level Subject Specific Resource Groups to undertake teacher training subsequently at sub-district level. The core team and subject specific teams are being continued since 2010 i.e., beginning of undertaking curricular reforms. The teams have been

continuously in interaction with Editors and experts from National level during development of curriculum framework, position papers and textbooks. The sustainability of subject specific resource groups across 10 years from DPEP period i.e., 1998 onwards is the greatest advantage for the State for the implementation of curriculum reforms in its real spirit and subsequent reforms in the areas of assessments, examinations, implementation of co-curricular activities, etc.

There were much discussions on the existing practices of writing lesson plans, teacher reflections, teaching learning process among the core group and subject specific groups. The existing practices of writing lesson plans, teaching learning process has been transformed duly reflecting the pedagogical renewal processes and made these meaningful and easy to practice.

Web References

- <https://mvfindia.in/wp-content/uploads/2014/07/ABF-Impact-Assessment-of-the-Quality-Improvement-in-Primary-Education-Programme.pdf>
- <http://www.andhraspider.com/resources/3202-Education-changes-at-primary-level-Andhra-Pradesh.aspx>

Note: This was written in 2013 before the bifurcation of Andhra Pradesh into Telangana and Andhra Pradesh.