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Curriculum and Textbook Development

1. Research Abstract

1. Theme/Subject:	Curriculum and Textbook Development
2. Stage of Education:	Secondary Stage
3. Topic of Research:	Study of the State Curriculum Framework of Tripura under RMSA
4. Name and Address of the Investigators(s) with email:	Dr. Ch. Sarajubala Devi sarajubala@yahoo.com
5. Name of the Institution where the Research was conducted	NERIE, Shillong
6. Category: (Research study/ Action research/Other)	Research Study
7. Language of Research Report:	English
8. Year of Completion:	2015
9. Published/Unpublished:	Unpublished
10. Introduction:	<p>To respond to the changing needs of the Society as well as per National Policy on Education 1986's mandate of periodic review of curriculum framework, NCERT developed NCF 2005 and accompanying syllabus. While doing so it has incorporated subject specific perspectives and focused on the pedagogic concerns based on the 5 guiding principles. Almost all the States and UTs have revised their curriculum and the curricular materials in the light of the NCF 2005. As all the states need to follow the goals of NCF 2005, an analysis of the curricular materials available for use in the schools were analyzed in order to understand the problems in the implementation of curricular policies and goals. It is also hoped that this exercise will help the national as well as state level bodies to improve the curricular materials.</p>
11. Objectives:	<ol style="list-style-type: none">1. To analyse the process of development of curriculum for the state of Tripura for Secondary stage2. To analyse the Curriculum (Secondary level) of the state.3. To analyse all curriculum materials including syllabus and textbooks.To conduct curriculum analysis in order to look into the infusion of locally relevant materials and integration of constructivist pedagogy4. To share the study findings with the State Educational Functionaries.

12. Methodology:

A 5-day workshop was conducted in SCERT, Agartala to analyse the textbooks prescribed by the Tripura Board of Secondary Education (TBSE) for the classes IX and X using the standard tool for textbook analysis developed by the RMSA, Cell, NCERT.

The textbooks were analysed by using two sets of tools: (a) Tool on Curriculum Reform Process and (b) Tool on Curricular Material in - Languages, Social Science, Science and Mathematics. The second tool contained items related to: Process related concerns, Content and Pedagogic Concerns, Socio-political Concerns and Perspectives and Visual aesthetics. The experts invited include University Teachers, SCERT and DIET fFaculty members and tTeachers.

13. Findings:

The state has developed the State Curriculum Framework following NCFSE 2000 in 2005-06 and the same was revised in 2013-14. In the revised version they have incorporated the recommendations of NCF 2005. The core curriculum of science and mathematics is almost the same with that of the NCERT, the Social Science and the Language Curriculum is developed as per recommendations of NCF 2005. The SCF of the state which was developed in 2005-06 was revised in 2013-14 in the line of NCF 2005. The syllabus from classes III- XII has been developed and new textbooks have been prepared from class III-VIII, the textbooks for class IX & X will be published shortly.

One of the major findings of the research is that the Tripura Board of Secondary Education (TBSE) has provided a syllabus and on the basis of many authors have developed textbooks and published independently by different publishers, therefore, multiple books are used in different schools. e.g 11 textbooks are available for life science. The books used were either by the West Bengal Board of Secondary Education (WBSE) or by Mizoram Board of Secondary Education, Kokborok book is published by the Directorate of Kokborok and Minority Languages, and for Hindi chapters are selected from NCERT textbook, *Katha Rupak* and Hindi *Sahitya ki itihās* both by the WBSE and Byakaran by CBSE. Except for the English textbook, all the textbooks were teacher centric and there is less scope for activities which will encourage critical and analytical thinking. The books provide less scope for applying the concepts in real life situations.

Overall, all the textbooks need a revision and it is hoped that the state will come up with books which are child-centric and children can construct knowledge.

14. Implications:

Based on the analysis, Tripura's secondary school curriculum was in transition. The state revised its framework in line with NCF-2005 in 2013-14, but new textbooks were not yet published. Consequently, schools use multiple, commercially published books approved by the Tripura Board (TBSE), creating inconsistency – up to 11 different Life Science textbooks.

The Language books (English and Bengali) are pre-NCF 2005 imports from West Bengal. The English textbook is commended for its communicative, child-centric approach. In contrast, the Bengali literary anthology lacks pedagogical guidance. Science textbooks are heavily critiqued as teacher-centric, information-dense, and devoid of activities, local context, or constructivist design, failing to build a scientific temper. Social Science uses separate History and Geography books; they are descriptive, lack critical activities or significant local integration, and omit Political Science entirely. Mathematics covers the syllabus but is poorly organized, hindering learners, and lacks integration between topics like algebra and geometry.

Overall, the reliance on these disparate, outdated commercial texts—which are largely information-based, lack NCF-2005 principles like critical thinking and local relevance, and offer no uniform pedagogical direction—severely undermines curriculum reform goals. The imminent publication of state-developed textbooks needs to ensure alignment with the revised framework and provide coherent, standardized learning materials. It is hoped that a better set of textbooks will come out by following the recommendations of NCF 2005.

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16. Keywords: curriculum, textbook, child- centric, critical thinking, constructivism

2. Research Abstract

1.Theme/Subject:	Curriculum and Textbook Development
2.Stage of Education:	Secondary Stage
3.Topic of Research:	Study of the State Curriculum Framework of Manipur under RMSA
4.Name and Address of the Investigators(s) with email:	Dr. Ch. Sarajubala Devi (PI) & Dr. Basansy Kahrlukhi , Dr. Sima Saigal (Co PIs) sarajubala@yahoo.com
5.Name of the Institution where the Research was conducted	NERIE, Shillong
6.Category: (Research study/ Action research/Other)	Research Study
7.Language of Research Report:	English
8.Year of Completion:	2015
9.Published/Unpublished:	Unpublished
10.Introduction:	<p>To respond to the changing needs of the Society as well as per National Policy on Education 1986's mandate of periodic review of curriculum framework, NCERT developed NCF 2005 and accompanying syllabus. While doing so it has incorporated subject-specific perspectives and focused on the pedagogic concerns based on the 5 guiding principles. Almost all the states and UTs have revised their curriculum and the curricular materials in the light of the NCF 2005. As all the states need to follow the goals of NCF 2005, an analysis of the curricular materials available for use in the schools were analyzed in order to understand the problems in the implementation of curricular policies and goals. it is also hoped the exercise will help the national as well as state-level bodies to improve the curricular materials.</p>
Objectives:	<ol style="list-style-type: none"> 1. The process of development of curriculum for the state of Manipur for Secondary stage will be analysed. 2. Curriculum (Secondary level) of the state will be analysed 3. All curriculum materials including syllabus and textbooks will be analysed

4. Curriculum analysis will also look into the infusion of locally relevant materials
5. Curriculum analysis will also focus on constructivist pedagogy of the curriculum and other materials

Sharing of the finding with the State Educational Functionaries.

12. Methodology:

A 5-day workshop was conducted in Directorate of School Education, Manipur to analyse the textbooks prescribed by the Board of Secondary Education Manipur (BSEM) for the classes IX and X using the standard tool for textbook analysis developed by the RMSA, Cell, NCERT.

The textbooks were analysed by using two sets of tools: (a) Tool on Curriculum Reform Process and (b) Tool on Curricular Material in – Languages, Social Science, Science and Mathematics. The second tool contained items related to: Process related concerns, Content and Pedagogic Concerns, Socio-political Concerns and Perspectives and Visual aesthetics.

The experts invited include University Teachers, SCERT and DIET faculty members, Members of Tribal Literature Societies and teachers.

13. Findings:

The study found that although Manipur does not have its own State Curriculum Framework, it follows the National Curriculum Framework (NCF) 2005. Accordingly, the syllabi for major subjects at the secondary level (Classes IX and X) has been revised in alignment with NCF 2005. Overall, the textbooks are updated, content-rich, and largely meet teaching-learning objectives. English and Manipuri language textbooks are well-structured, activity-based, and learner-centered, encouraging knowledge construction. However, tribal language textbooks require significant review and improvement.

Science textbooks include contextualized real-life examples, clear introductions, in-text questions, and summaries that support conceptual understanding. Social Science textbooks provide case studies and informational boxes, but need improvement in addressing issues of gender, inclusion, environment, and critical pedagogy. Mathematics textbooks are conceptually strong, interactive, and supportive of higher-level learning, though they lack local examples and social relevance.

14. Implications:

It is revealed that Manipur's curriculum reform has progressed significantly. The Board of Secondary Education revised its syllabus in line with NCF-2005 by 2013. Textbooks, authored by local experts, have been developed for all major subjects.

The Language curriculum is notably inclusive, recognizing 18 first languages, including 11 indigenous ones. While aiming to follow NCF principles, the analysis finds a need for more critical thinking questions, better gender representation, and greater focus on communicative functions, especially for tribal languages. Science textbooks are well-regarded, praised for being activity-oriented, linking concepts to local examples, and promoting logical reasoning. Suggested improvements include better diagram quality and inclusion of women scientists. Social Science integrates subjects into a single textbook. While it incorporates local concerns, it is criticized for an inconsistent structure, an overly narrative history section lacking primary sources, and insufficient student engagement activities. Only the Economics section effectively reflects NCF-2005. Mathematics books successfully build a strong conceptual foundation with clear explanations but lack social context, local examples, and integration of algebra with geometry.

In summary, Manipur has systematically implemented a locally contextualized curriculum. The primary strengths are in science and the inclusive language policy, while key areas for revision are Social Science pedagogy and enhancing critical thinking and gender sensitivity across all subjects.

If the textbooks are revised for some few lacunas as mentioned in the report, it could serve as a good curricular material for promoting critical and creative thinking and construction of knowledge. It is hoped that with the inclusion of the real-life examples and local examples the textbooks enabled the children to connect to the new knowledge.

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16. Keywords: curriculum, textbook, child-centric, critical thinking, constructivism

3. Research Abstract

1. Theme/Subject:	Curriculum and Textbook Development
2. Stage of Education:	Foundational Stage
3. Topic of Research:	A Study of the Textbooks of FLN prepared by Maharashtra in light of NEP 2020 Recommendations
4. Name and Address of the Investigators(s) with email:	Dr. Shruti Tripathi shruti05071980@gmail.com
5. Name of the Institution where the Research was conducted	RIE Bhopal
6. Category: (Research study/ Action research/Other)	Research Study
7. Language of Research Report:	English
8. Year of Completion:	2023
9. Published/Unpublished:	Unpublished
<p>10. Introduction:</p> <p>Foundational Literacy and Numeracy (FLN) has emerged as the cornerstone of early education in India, particularly under the <i>NIPUN Bharat Mission</i>, which emphasizes ensuring that every child achieves basic literacy and numeracy skills by the end of Grade 3. Textbooks serve as the most important resource for facilitating learning in the early grades, as they not only present subject content but also shape the learning environment and motivation of young learners. In this context, Maharashtra has developed FLN textbooks that are expected to align with the prescribed Learning Outcomes and guidelines of NIPUN Bharat.</p> <p>The quality of these textbooks is crucial, as engaging illustrations, child-friendly fonts, appropriate printing, and clear organization of content play a significant role in sustaining children’s interest and enhancing their learning experiences. Moreover, textbooks are not just instructional materials for students but also key pedagogical tools for teachers. Hence, a critical study of their structure, content, and presentation becomes essential.</p> <p>This research aims to analyze Maharashtra’s FLN textbooks to determine their alignment with national learning goals, assess their effectiveness in motivating learners, and provide constructive suggestions for improvement. The findings will not only support the state but also serve as valuable input for other states reviewing their own FLN materials.</p>	

11. **Objectives:** The present study seeks to critically examine the Foundational Literacy and Numeracy (FLN) textbooks developed by the state of Maharashtra with reference to their alignment with the *NIPUN Bharat Mission* and Learning Outcomes prescribed at the national level. The objectives of the study are multidimensional, aiming not only to review the academic and pedagogical aspects of the textbooks but also to evaluate their design and usability for young learners.

1. **To study the FLN textbooks prepared by Maharashtra** - This involves a comprehensive review of the content, structure, and themes of the textbooks to understand how they address the foundational skills in reading, writing, and numeracy.

2. **To assess the alignment of the textbooks with Learning Outcomes and NIPUN Bharat guidelines** - The study will analyze whether the textbooks are designed in accordance with the competencies expected of children in early grades, ensuring that they provide adequate scope for progressive and measurable learning.

3. **To examine the quality of presentation** - The study will evaluate illustrations, font size, layout, printing quality, and overall design, as these elements directly influence motivation, comprehension, and learner engagement.

4. **To suggest improvements** - Based on the analysis, the study will provide concrete recommendations for enhancing the effectiveness and child-friendliness of the textbooks, thereby improving their contribution to foundational learning.

12. Methodology:

The present study adopted an analytical research design using both qualitative and quantitative approaches to evaluate the FLN textbooks prepared by Maharashtra. The purpose is to systematically analyze the textbooks in terms of content, structure, and alignment with the *NIPUN Bharat Mission* and prescribed Learning Outcomes.

The study begins the collection of FLN textbooks across relevant classes/levels. These textbooks were subjected to a content analysis framework developed by the researcher to examine coverage of competencies, sequence of topics, inclusivity, language level, and relevance to learners' socio-cultural contexts. Special focus was given to whether the textbooks provide opportunities for activity-based, experiential, and competency-driven learning.

In addition, the quantitative analysis focuses on measurable elements such as the number of activities aligned to each learning outcome, distribution of themes across lessons, and frequency/variety of exercises that develop literacy and numeracy skills.

A qualitative study of illustrations, layout, font size, color scheme, and printing quality was also conducted, since these directly affect the attractiveness and readability of textbooks for young learners.

To support the analysis, research tools such as checklists, rating scales, and evaluation schedules were developed. The outcomes of both analyses were integrated through triangulation, ensuring validity and reliability of the findings.

13. Findings:

The analysis of the FLN textbooks prepared by Maharashtra revealed several important insights. First, the textbooks were broadly aligned with the Learning Outcomes prescribed under NIPUN Bharat, especially in the domains of literacy and numeracy. The sequencing of topics generally followed a logical progression, with adequate scaffolding to support young learners' understanding. However, in some cases, the linkage between specific outcomes and activities was not explicitly highlighted, which could make it difficult for teachers to track learning progression.

The study found that the textbooks included colorful illustrations and simple, child-friendly fonts, which enhanced their attractiveness for learners in the foundational stage. The quality of printing was satisfactory, though some inconsistencies in font size and color saturation were observed across editions. The illustrations often reflected real-life contexts, helping children connect learning with their immediate surroundings, but certain cultural and regional diversities were underrepresented.

Quantitative analysis indicated that while a majority of activities promoted basic literacy and numeracy skills, fewer tasks were designed to develop higher-order competencies such as reasoning, problem-solving, and creativity. Teachers reported that supplementary materials or teacher guidance notes were limited, which restricted effective use of textbooks.

Overall, while the textbooks provided a strong base for foundational learning, improvements in inclusivity, activity diversity, and teacher support mechanisms were suggested.

14. Implications:

The findings of this study have significant implications for enhancing foundational learning in Maharashtra and beyond.

First, aligning textbooks more explicitly with Learning Outcomes and NIPUN Bharat guidelines will enable teachers to track and support students' progress more effectively. Clear mapping of outcomes to classroom activities can strengthen learning continuity and assessment.

Second, improving the diversity and inclusivity of illustrations and examples will help children from different cultural, linguistic, and regional backgrounds relate better to the content. Incorporating more real-life contexts and locally relevant scenarios can make learning more meaningful and engaging.

Third, expanding activity types to include higher-order thinking, problem-solving, and creative tasks can support holistic development in young learners. This will encourage not only literacy and numeracy but also critical thinking, collaboration, and independent learning skills.

Fourth, providing teacher support materials, such as guidance notes, activity suggestions, and assessment rubrics, will empower teachers to use textbooks effectively and adapt activities to the needs of diverse learners.

Finally, the findings suggest that continuous textbook review and feedback mechanisms are essential to ensure that resources remain current, pedagogically sound, and learner-friendly. Other states can adopt similar approaches when designing or revising foundational learning resources.

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16. Keywords: FLN, Textbooks, NIPUN Bharat, Learning Outcomes, Early Literacy, Pedagogy