

## **The Process of Textbook Approval: A Critical Analysis**

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### **Abstract**

Up to the recent past, Textbook Boards were the only institutions in Pakistan that had the mandate to develop textbooks for both government and private schools affiliated with public examination bodies of the country. These boards have been working under their respective provincial governments. This situation developed a culture of using a single-textbook<sup>1</sup> in schools across the country. However, availing the provision given in the recent National Educational Policies of Pakistan, various private publishers have also been developing textbooks for both private and government schools. As per policy, before launching any textbook in the government schools, it is presented to the Ministry of Education for review and approval. Under this policy decision, the Curriculum Wing, Ministry of Education, Government of Pakistan has approved various textbook series by private sector for classes 1 to 5 along with that of the Textbook Boards' during 2001-2004. This study analyzes these approved textbooks and their approval procedure by using CIPP Model. Data were collected through (a) interviews of the officials of the Textbook Boards, textbook developers and the Ministry of Education (b) analysis of the approved textbooks and (c) document analysis. The study discovered that there is a need to improve the existing procedure of the ministry for acquiring textbook approval.

**Keywords:** Textbook; textbook evaluation, textbook development, Pakistan.

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### **Background**

When Pakistan came into being, the use of multi-textbooks was a very common practice in the country. However, this practice was stopped after the establishment of Textbook Boards in the government sector. The quality and effectiveness of textbooks requires a healthy competition in their development. In the mid 80s keeping in view the positive effects of using multiple textbooks around the Globe, the use of multi-textbooks in Pakistan was also allowed (Govt. of Pakistan 1992 & 1998) in all schools both

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government and private. Under this policy decision the Ministry of Education, Curriculum Wing (MoECW) Government of Pakistan has been approving various textbook series for classes 1 to 5 developed by private publishers along with the Textbook Boards during 2001-2004.

Approval of the different textbooks in Pakistan is a memorable event. It is an encouraging sign for the quality textbooks. Nevertheless, it is essential to have an objective criterion to evaluate the extent to which these books are meeting the national objectives of the education and technical aspects of textbook development. There is a lot of controversy over textbooks in terms of their approval from the MoECW (see Daily Times, April 12, 2004; Daily Dawn, April 18, 2004; Daily The Nation, April 14 & December 10, 2004; SDPI Research & News Bulletin, July – August 2005; etc.). There may be a variety of reasons behind it. Data from the Third International Science and Mathematics Study (Schmidt, McKnight, and Raizen, 1997) demonstrate that most textbooks material suffers from a lack of coherence and focus. While publishers of the approved textbooks in Pakistan are eager to claim that their books are; (a) focused in terms of scope and objectives given in the National Curriculum and (b) aligned with educational requirements at the level for which they have been approved (Interview with officials of Punjab and Sindh Textbook Boards, July 20, 2004). In order to understand these claims, there is a need to analyze the textbooks development and approval processes, and approved textbooks themselves.

This study aims at the critical analysis of the textbooks development process both in government and private sectors, and their approval procedure adopted by the MoECW. The study also analyzes the contents of the approved textbooks. The study, specifically discussed the questions: (a) To what extent is the textbook approval procedure of the Ministry of Education effective? And (b) To what extent do the approved books cover the scope of content mentioned in the intact National Curriculum 2000'?

## **Literature review**

### *What is a textbook?*

Text is designed to teach students what the educators believe ought to exist in other words, textbooks “tell children what their elders want them to know” (Kalmus, 2004) and these books are the visible, tangible and practical manifestation of the curriculum (Hussain & Mahmood, 2002).

According to The Collins English Dictionary (1998), “textbook” is a book used as a standard source of information on a particular subject. While answering the question, “What is a textbook?” Hamilton (1990) in *Paradigm — a Journal of the Textbook Colloquium* — argues that a

textbook may be any book or a book substitute, including hard-covered or paperback books, workbooks designed to be written in and used up, certain newspapers, news magazines and manuals which a student is required to use as a text or a text-substitute in a particular class or programme as a primary source of study material intended to implement a major part of the curriculum.

There is also some debate in literature over what constitutes a school textbook. Questions have been raised about whether textual materials held in school and local libraries are textbooks or reference books. Similarly it can be asked whether novels studied in classrooms are textbooks or not. Warren's (1981) answer to such questions provided the following definition.

“A textbook is printed instructional material in bound form, the contents of which are properly organized and intended for use in elementary or high school curricula.”  
(p. 43)

Apart from the obvious statement about textbooks' bound form, this definition emphasizes that it is the planned use which determines whether a book is a textbook or not. If we accept Warren's definition, any book which is specifically written for use in classroom instruction can be considered a school textbook. Likewise, if a book is used in the teaching and learning process it can be considered a textbook while it is being used in that way. As a result novels, anthologies of poems, collections of plays and short stories, as well as reference books can be classified as textbooks depending upon the situation and purpose for which they are being used.

However, for the purpose of this study “textbook” is a book that a school uses for classroom instruction to teach a subject in order to cover the curriculum set for the subject at a particular grade.

### *Why textbooks?*

Being the base material used in teaching and learning process, textbooks play an important role in improving education. All-Wright (1999) views textbooks as “resource books for ideas and activities” rather than as “instructional material” (p.25). This perspective is supported by Cunningsworth (1984) as he believes that “published material provides the initial framework, which must be adapted by each individual teacher to match the needs of their students” (p. 65).

Studying textbooks cannot be neglected either. Textbooks have many purposes. They are “powerful media for teaching and learning” (Tanner, 1988, p. 141), they “determine what is school [subject e.g.] mathematics (in a similar way to syllabuses and examinations)” (Darfler and MeLone, 1986, p. 93); and they are “necessary tool for regular students” and

“guide for the inexperienced teachers” (Govt. of Pakistan, 2000, p. 23). Because what students learn from textbooks and the practicality of that learning are mediated by the school context (teachers, peers, instruction, assignments), the textbook is a source of potential learning.

The textbooks have an enormous influence on what is taught in primary, elementary and secondary classes and how it is taught. These are the backbone of classroom instruction, especially at the primary level in developing countries including Pakistan. Research shows that a majority of teachers use textbooks as their principal curriculum guide and source of lessons (St. John, 2001). New and in-experienced teachers, or those who lack adequate time for lesson planning, may actually teach from the first page of the textbook to the last, skipping little or nothing (Tyson, 1997). Sheldon (1988) believes that textbooks are heavily utilized. He identified three main reasons for it: firstly, developing their own classroom materials is an extremely difficult and arduous process for teachers; secondly, teachers have limited time in which to develop new materials is just not possible due to the nature of their profession; and thirdly, external pressure restricts many teachers.

“An approved textbook may easily become the curriculum in the classroom” (Lime, 1991, website). Skierso (1991) concedes that “most of teachers tend to follow the text’s sequence, methodology, pacing and vocabulary to the letter” (p.432). This extremeness in the utilization of textbooks expected a lot from the materials utilized in them especially with respect to comprehension in terms of content and pedagogy; gradually ascending vocabulary; ambiguity free sentence structures; relevant, attractive and self explanatory illustration; nature and pleasant design; horizontal and vertical coordination etc. (Hussain & Mahmood, 2002).

### *Textbook analysis*

The textbook is the core of all materials and activities. Better organization of the content and methods in the textbooks assure better information of basic principles and fundamental relations. Portway & Lane (1997) list characteristics of a quality textbook. According to them textbook should: be acceptable; be as attractive as other textbooks to hold attention; be of high quality, well presented and lavishly illustrated; be up to date; available on time; have a clear role in course design; the author’s credentials should be appropriate and recognized; should encourage students to learn; etc. A textbook analysis could focus a few or all these characteristics. These characteristics can be put into two broad categories i.e. internal and external for analysis purpose.

Herbst (1995) also characterizes textbook analyses as either external or internal critiques. External critiques treat the textbook “as a piece of

technology inside the educational system” (p. 2) “a technological product, a container, or a funnel of [a subject, e.g.] the mathematics to be learned” (p. 3). Those analyses “refer the textbook to its external environment, that being the educational system, the [subject e.g.] mathematics of the [subject specialist e.g.] mathematician, or the process of transposition” (p. 3). In contrast, internal critiques consider the textbook as an “environment for construction of knowledge” (p. 3); the interactions of the elements inside the textbook (e.g. diagrams, examples and explanations) are seen “as a product of the conflict between the temporal and spatial nature of texts” (p. 3).

The work reported in this paper discusses both internal and external criticism.

### *Textbook Evaluation*

Williams (2002) stresses the importance of making evaluation an integral part of a design process. The evaluation of both individual material and a complete instructional programme is a key to the success of any instructional activity. The appropriate evaluation approach and/or method depend on the context of the application and the data sets available. I reviewed a number of approaches to evaluation of textbooks and other deliverables in the field of education. These approaches include; the consumer-oriented, expertise-oriented, objectives-oriented and participant-oriented approaches discussed by Bell (2000); Breen & Candlin (1987); Fitzpatrick, Sanders & Worthen (2004); Kemp, Morrison & Ross (1996); Nesbit, Belfer & Vargo (2002); Morrow (1977); Sheldon (1988); and Stufflebeam (2000). Here is a brief description of these approaches.

Consumer-oriented evaluations of educational materials are mostly conducted by governmental organizations and non-profit associations that train evaluators, to apply standard criteria, checklists or rating scales, to examine the materials and produce reviews in a highly structured format. Whereas in expertise-oriented the judgment of experts is the main source of information. Expertise-oriented approaches can provide a simple way to evaluate something that is complex if the stakeholders are satisfied with expert opinion (Fitzpatrick, et al., 2004). These approaches have been criticized as being especially vulnerable to the subjective biases of the evaluators. And, they often show low inter-evaluator consistency because individual expert evaluators tend to place greater importance on the specific factors that form the basis of their own expertise (McDougall & Squires, 1995; Reiser & Dick, 1990). Objectives-oriented approaches couple detailed analysis and definition of goals with empirical, quantitative studies using pre-post or comparative designs that test the extent to which the goals have been attained. Participant-oriented approaches to educational evaluation explicitly acknowledge that learning is a social process dependent on social

context. The methodology of participant-oriented evaluation is drawn from naturalistic and ethnographic research. Data are gathered by prolonged and persistent observation, informal interviews, and document analysis; and reported as detailed descriptions or direct quotations (Neuman, 1989; Patton, 1980). This approach takes a broad perspective on the nature of most kinds of evaluands (things being evaluated), ranging from organizations to instructional products (including textbook) and from their conception to their completion, as first proposed by Stufflebeam (1971) in his CIPP (context, input, process, product) Model.

I used CIPP model for the study. The logic behind the use of this model for textbook development and evaluation is very basic. The model is useful for making important decisions concerning the value and worth of the textbook and is equally useful in the development of a textbook. I also believe that certain benefits are realized by using the same model for textbook development and evaluation. More specifically, when the framework for the textbook evaluation is grounded in the textbook development, interpretation of the evaluation results can be directly linked to specific curriculum components. The essential feedback loop of any successful model is clearly an integrated feature of the overall model. Therefore, I consider using the CIPP Model for textbook evaluation as a very feasible approach for this study.

### *What is CIPP?*

The CIPP model of evaluation was developed by Daniel Stufflebeam and his colleagues in the 1960s, out of their experience of evaluating education projects in a district. This model went through different phases of its development. The Model's current version (Stufflebeam, 2002 & 2003a; Stufflebeam, Gullickson & Wingate, 2002) reflects a continuous efforts and gradual progress to develop a sound evaluation theory which is "coherent set of conceptual, hypothetical, pragmatic, and ethical principles forming a general framework to guide the study and practice of evaluation" (Stufflebeam, 2003b).

The CIPP Model is a comprehensive framework for guiding formative and summative evaluations of projects, programs, personnel, products, institutions, and systems. The model is configured for use in internal evaluations conducted by an organization's evaluators, self-evaluations conducted by project teams or individual service providers, and contracted or mandated external evaluations. The core concepts of the model are; Context, Input, Process, and Product Evaluations which are denoted by the acronym CIPP. (Stufflebeam, 2003b) describes these concepts as:

- *Context evaluations* assess needs, problems, assets, and opportunities to help decision makers define goals and priorities and help the broader

- group of users judge goals, priorities, and outcomes.
- *Input evaluations* assess alternative approaches, competing action plans, staffing plans, and budgets for their feasibility and potential cost-effectiveness to meet targeted needs and achieve goals. Decision makers use input evaluations in choosing among competing plans, writing funding proposals, allocating resources, assigning staff, scheduling work, and ultimately in helping others judge an effort's plans and budget.
  - *Process evaluations* assess the implementation of plans to help staff carry out activities and later help the broad group of users judge program performance and interpret outcomes.
  - *Product evaluations* identify and assess outcomes—intended and unintended, short term and long term—both to help a staff keep an enterprise focused on achieving important outcomes and ultimately to help the broader group of users gauge the effort's success in meeting targeted needs.

### **Textbook development and their approval in Pakistan**

A centralized curriculum is being followed in Pakistan. The MoECW, in consultation with the provinces, develops curriculum for each grade and subject up to grade 12. This curriculum is called National Curriculum and follows throughout the country. Whosoever wants to develop textbooks for government and private schools affiliated with public examination bodies of Pakistan has to follow the National Curriculum.

As mentioned earlier, responsibility of the textbook development in Pakistan remained with the Textbook boards until recent past. These days' private publishers are also developing textbooks inspired by the provision given under the recent National Educational policies. The Textbook Boards and the private publishers develop textbooks following the guidelines given in the intact National Curriculum<sup>2</sup>. Some of the guidelines are specifically for publishers. For example MoECW guides:

“For creating interest among the students, the textual materials should be presented through attractive and proper diagrams/ maps/illustrations. Font size and setting of the textual materials should properly be checked. It should be with respect to the age level of the students. The arrangement of pages, exercises and model test items at the end of each chapter should be correct.”  
(Govt. of Pakistan, 2002, p-16)

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Some of the guidelines are specifically for the textbook writers. For example regarding organization of textbooks and content selection, MoECW guides:

“While developing textual material graded vocabulary should be used. The language should be simple, clear and logical. The time limit for the course completion should be considered. The book should be student centered as well as teacher centered and avoid unnecessary details while developing the material. The sequential development of topics as suggested in the curriculum should be kept in mind. The activities and guidelines for teachers should be given at proper places. There should be glossary at the end of the textbook to clarify the key terms”.  
(Govt. of Pakistan, 2002, p.16)

Both the Textbook Boards and the private publishers have to follow the guidelines given in the National Curriculum but they have their own procedure for textbook development. They develop textbooks and present these books to MoECW for their review and approval. The MoECW constitute a National Curriculum Review Committee (NCRC) for this purpose. Each time on a presentation of a series of textbooks (or a book) a new NCRC is constituted. The textbook development and approval procedures are given in following figures 1 & 2 for Textbook Boards and private publishers respectively.



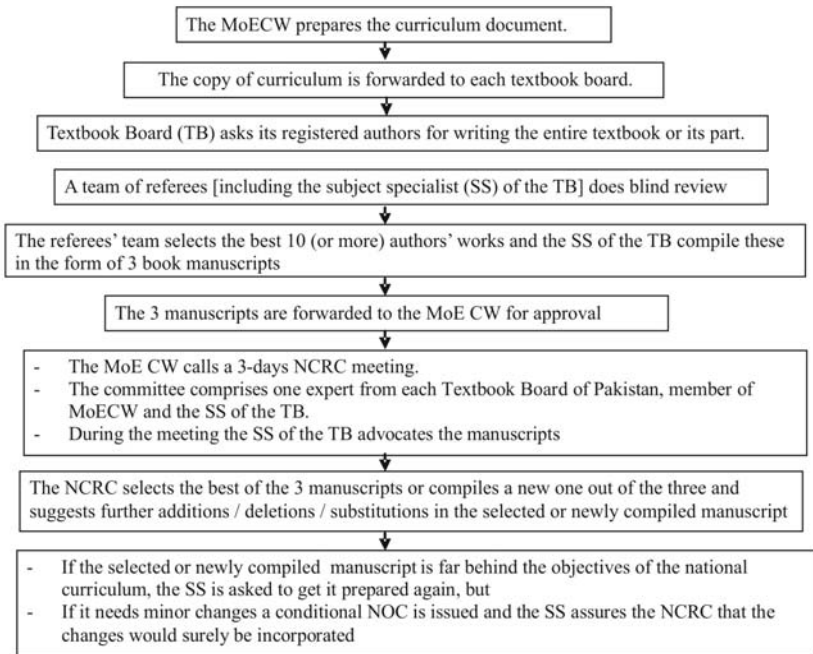


Figure 1: Current practice for textbook development and approval in government sector

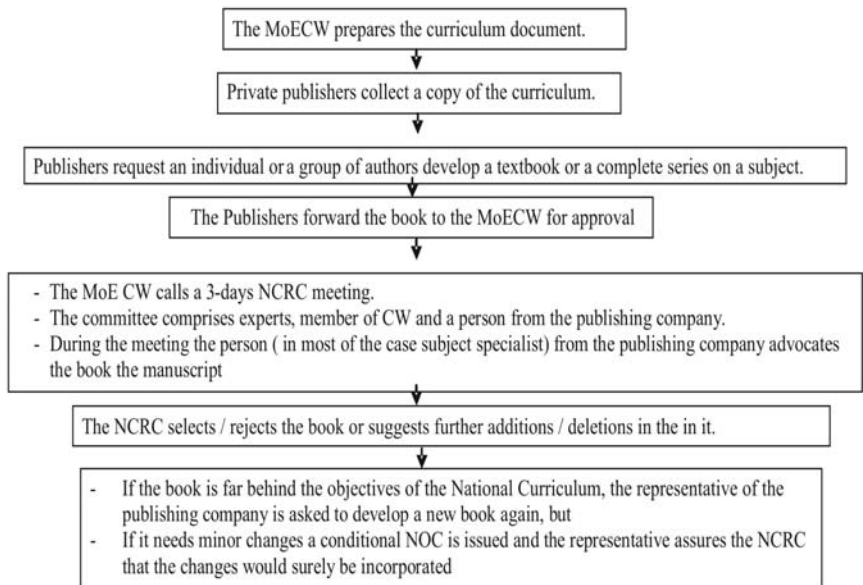


Figure 2: Current practices for textbook development and approval in private sector

## Methodology

### *Sample*

The MoECW has approved textbooks for classes 1 to 5 of five Textbook Boards of Pakistan — Punjab Textbook Board; Sindh Textbook Board; Balochistan Textbook Board; NWFP Textbook Board; and Azad Jammu & Kashmir Textbook Board— and seven private textbook publishers – Oxford University Press Karachi, National Book Trust Karachi, National Book Foundation Islamabad, Paramount Publisher Karachi, Far Eastern Publications (FEP) Karachi, Ferozsons Limited Lahore and Gaba Publishers Lahore. It was not possible for me to evaluate all the books of each series, due to time constraints and competency needed for all subjects. I selected Punjab Textbook Board and Sindh Textbook Boards being the largest Textbook Boards of Pakistan with regard to their number of books and one among the private textbook publishers i.e. Oxford University Press being its relatively more popularity with respect to other private publishers in the country. Grade 3 mathematics books were selected for the analysis as it is the middle stage of primary class (1-5) and I have expertise in the subject.

Each of the Textbook Boards has at least one subject specialist in mathematics. One subject specialist along with two senior official from each of the two selected Textbook Boards and three officials (an Assistant Education Advisor, a senior official dealing with formation of NCRC and the person dealing mathematics) of the MoECW were interviewed for this study.

### **Instruments used and area of concern**

Following were the deliberations for each component of the model.

- Context Evaluation – Questions regarding context usually deal why textbooks are needed? However, no contextual evaluation was done for this study.
- Input Evaluation – For this study questions with regard to input deal with (a) expertise available with textbooks developers (both the Textbook Boards and private publishers) and the MoECW and (b) guidelines for textbook developers and reviewers.
- Process Evaluation– In this study questions with respect to the process deal with the development and approval processes for textbooks.
- Product Evaluation– For this study questions related to product are about analysis of the final product i.e. approved textbooks.

### *Instruments and data collection*

Following tools were used to collect the data:

- Document analysis - Document analysis of educational files, records, reports, could prove to be an extremely valuable source of data (Bell 1993). In this study, document analysis provided a basic source for collecting data. I tried to look for documents both print and electronic about the existing practices and procedures of the Textbook Boards and the MoECW about the development, review and approval of textbooks. These included correspondence with the different persons who have been involved in textbooks development and review, guidelines for NCRC members, and the National Curriculum handbooks.
- Interview – Interview allows us for further probing and clarifications (Bell, 1993). Interviews confirmed and validated the information collected through document analysis (especially, in case of non-availability of certain documents). These also helped in learning more about the practices of the Textbook Boards and the MoE(CW) regarding development, review and approval of textbooks.

Data collected from both the above-mentioned tools helped in understanding the inputs and processes of textbooks development and review. In order to know about the product of these processes, I analyzed the approved textbooks.

- Analysis of approved textbooks – This analysis helped to gauge the extent of content coverage on various topics given in the textbook and demanded in the National Curriculum. It also helped to compare understanding (based on Bloom's (1971) Taxonomy) demanded in each approved textbook and spread of the topic(s) in terms of time required to discuss the topic in a classroom and to attempt the exercises given in it.

## **Data analysis and interpretation**

### *Input and processes*

Figures 1 & 2 reveal that the MoECW has the same procedure for review and approval of textbooks produced by private publishers and the Textbook Boards. However, there is a difference in the development of the textbooks under both sectors. Figure 1 further demonstrates that textbooks development procedure of the Textbook Boards perhaps had better quality assurance mechanisms.

I tried hard to get a copy of review and approval procedures being practiced at MoECW but could not. Criteria for NCRC membership and the committee's the TORs were also not available in black and white. However there was a common understanding about the qualification and experience of

the persons usually invited for membership of this committee. Regarding formation of the NCRC and its TORs, it was informed:

“We select experts for all over Pakistan, representing all provinces and other areas to constitute the review committee [NCRC]. The copy of national curriculum is provided to the committee members. They are briefed about the critical aspects including culture and ideology of Pakistan in general and the provinces in particular.” (Interview with the MoECW officials dated August 24, 2004)

It was observed that the individuals invited for the various NCRC memberships for different meetings that most of the time desired academic qualification, relevant experience and hence the expertise was not observed. However, a selection criterion for the NCRC membership, as emerged through the analysis of the interviews, was:

“The experts in the field all over the country are requested to work in the review committee [NCRC]. Majority of the members, we requested are known by us. The committee is constituted including the teachers, the teacher educators, subject specialists from provincial textbook boards, colleges and university professors.” (Interview with the MoECW officials dated August 24, 2004)

Many factors might have been responsible for ignoring the criteria for the NCRC membership but lack of qualified and experienced workforce could be one obvious reason. Even at times, the MoECW representation on the NCRC did not fulfill the criteria. While responding to the question about the professional capacity of MoECW, it was informed;

“Although it is supposed that subject specialists at the Wing [MoECW] review textbooks of their relevant subjects but due to shortage of the manpower a subject specialist also reviews other subjects than her/his own, e.g. subject specialist mathematics reviews the subjects of mathematics, science etc.” (Interview with MoE CW officials dated August 25, 2004)

There was no formal mechanism in place and/or existed for the professional development of the NCRC members. In response to the question regarding professional development of the NCRC members, the explanation was:

“We know the people who can work on this committee. The ministry does not have any formal pool of experts for such kind of membership. So the ministry does not have any formal training programme for the professional development of review committee [NCRC] members. However, these persons become experienced person after their involvement in so many review [NCRC] meetings.” (Interview with the MoECW officials dated August 25, 2004)

### *Product*

The analysis of textbook, regarding the coverage of content is given below:

Table 1

Unit and book-wise content coverage in the approved textbooks as demanded in the National Curriculum 2000

Scope given in the National Curriculum 2000	Coverage in the Punjab Textbook Boards' Book Class3 approved by the MoE (2002, 2004)	Coverage in the Oxford Book Class3 –Get Ahead approved by the MoE (2002)	Coverage in the Sindh Textbook Boards' Book Class3 approved by the MoE (2004)
Unit: Number Theory			
Even and odd natural numbers up to 100	<i>Yes p.12</i>	<i>No</i>	<i>Yes p.8</i>
Reading and writing Roman numbers up to 12	<i>Yes p.14</i>	<i>No</i>	<i>Yes p.11</i>
Concept of a dozen	<i>Yes p.16</i>	<i>No</i>	<i>Yes p.12</i>
Unit: Common Fraction			
Comparison of fractions with equal denominator	<i>Yes p.24</i>	<i>No</i>	<i>Yes p.15</i>
Comparison of fractions with equal numerator	<i>Yes p.25</i>	<i>No</i>	<i>Yes p.15</i>

Unit: Decimal Fraction			
Concept of decimal fractions	<i>Yes p.27</i>	<i>No</i>	<i>Yes p.17</i>
Conversion of a decimal fraction into proper common fraction and vice versa	<i>Yes p.29, 30</i>	<i>No</i>	<i>Yes p.22</i>
Unit: Algebraic operations			
Rules of addition and subtraction for even and odd numbers	<i>Yes p.45</i>	<i>No</i>	<i>Yes p.35</i>
Addition and subtraction of decimal fractions	<i>Yes p.72</i>	<i>No</i>	<i>Yes p.35</i>
Geometry			
Identification of kinds of triangles with respect to sides	<i>Yes p.116</i>	<i>No</i>	<i>Yes p.103</i>
Measuring the sides of a quadrilateral	<i>Yes p.119</i>	<i>No</i>	<i>No</i>
Drawing the figure of a triangle, square, rectangle and circle with the help of familiar objects	<i>Yes p.120-125</i>	<i>Yes to some extent p.68</i>	<i>Yes p.106</i>

Table 1 reveals that the textbooks developed by the Textbook Boards gave coverage to different topics as demanded in the National Curriculum; however the books developed by the private publisher did not. This situation reflects that NCRC did not care about the content coverage demanded in the National Curriculum as the scope of the unit and its coverage in the textbooks while their review and approval.

Table 2  
Topic and book-wise understanding demanded in the approved textbooks

Concepts	Understanding demanded in Punjab Textbook Boards' (PTB) Book Class3 approved by the MoE (2002, 2004)	Understanding demanded in Oxford Book Class3 –Get Ahead approved by the MoE (2002)	Understanding demanded in Sindh Textbook Boards' (STB) Book Class3 approved by the MoE (2004)
Natural Number	<i>Comprehension</i>	<i>comprehension</i>	<i>Analysis (p.22)</i>
Common Fraction	<i>Application (p.22)</i>	<i>comprehension</i>	<i>comprehension</i>
Decimal Fraction	<i>comprehension</i>	-	<i>comprehension</i>
Algebraic operations	<i>Application</i>	<i>Application</i>	<i>Application</i>
Algebra operations	---	<i>Rate (per kilometer p.34) in multiplication</i>	<i>Shares in terms of parts are given, find actual amount (p.65)</i>

Table 2 depicts that homogeneity with regard to the level of understanding demanded by each of the approved textbook among these books was missing. Nevertheless, the end users of all the textbooks share almost the same background and academic support available to them. This phenomenon reflects that guidelines given to the NCRC as not explicit for everyone.

Table 3

Topic-wise weighing and time demanded in the national Curriculum for mathematics class 3 and spread of the topic in the approved textbooks

Main Concept	Sub concept	Demanded in the National Curriculum 2000		Coverage in term of number of					
		Weighing	No. Of periods each of 35 minutes duration	Exercises			pages		
				PTB	Oxford	STB	PTB	Oxford	STB
<b>Numbers</b>	Natural Numbers	10%	27	7	5	6	17	11	12
	Common fractions	10%	27	3	1	2	7	3	4
	Decimal fractions	10%	27	3	-	3	5	-	8
<b>Operations on</b>	Natural Numbers	10%	27	18	20	19	35	22	34
	Common fractions [& decimal fraction]	10%	27	6	-	5	10	-	7
<b>Measurements</b>	Concepts	8%	22	4	2	3	7	3	7
	Operations			5	4	6	10	6	7
<b>Time</b>		6%	16	6	4	5	13	7	15
<b>Money</b>		6%	16	2	3	2	3	6	4
<b>Geometry</b>	Concepts	10%	27	4	2	2	8	1	4
	Construction	10%	27	3	1	5	10	1	6
<b>Information Handling</b>		10%	27	1	1	1	9	8	6

Table 3 indicates that the approved textbooks have given different amount of space for the explanation of same topics and exercises for them. Although the amount of time allocated for the teaching of each topic is the same as it has been fixed by the MoECW. This phenomenon again figures out the un-objectivity of the procedures practiced for textbooks review and approval at the MoECW.

## Findings

- An explicit criterion for the membership of the NCRC is missing at the MoECW. There is no formal pool of reviewers available at the MoECW. There is no setup and/or opportunities are available for the professional development of textbook writers and reviewers at the MoECW.
- Since objectivity is missing in the review and approval procedure there was inconsistencies in review and/or approval of textbooks. Absence of explicit procedures for textbook review / evaluation and approval was the major cause for overlooking less/over coverage of contents given in the approved textbooks especially in books developed by the private publisher, as demanded in the National Curriculum.
- A majority of the NCRC members consists of subject fellows who work together while reviewing and evaluating textbooks of each other's board for approval since long. They influenced (by supporting each other or otherwise) decisions about the approval of the textbooks.



## Recommendations

Keeping in view the findings of the study, I feel that (a) the MoECW should have a pool of textbook developers / reviewer / evaluators across the country and arrangements for their continuous professional development and (b) there is a dire need to revisit the NCRC membership criteria and procedures for textbook review and approval at the MoECW. For this purpose, I propose the following model for textbook review and approval along with the criteria for the NCRC membership.

### *Proposed model for textbook review and approval*

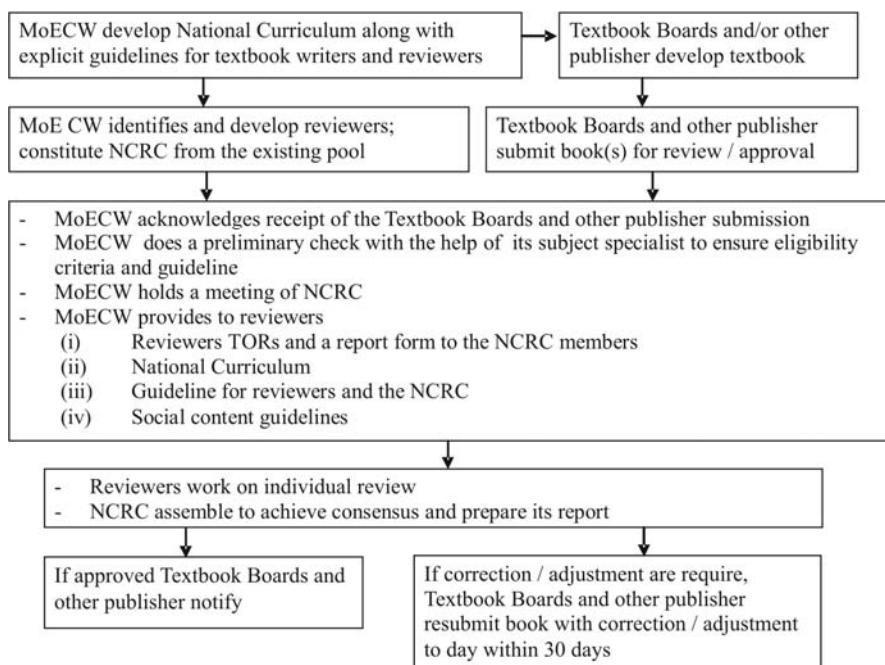


Figure 3: Proposed model for textbook review and approval

### *Criteria for Evaluation Committee membership*

- Must be a Pakistani national
- Must be a teacher, subject specialist / supervisor (i.e., with at least five years experience in a specific subject or a high school/college/university teacher with a masters' in a specific subject) and/or curriculum expert
- Must have been trained on textbook review/evaluation or must have served as a textbook reviewer in a previous NCRC

- Must not be a writer, contributor, consultant, or editor of any textbook already approved and/or submitted to the MoE CW for the approval and must reveal personal information necessary to ensure no conflict of interest.

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