



Development of a Tool for the Evaluation of a Textbook

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Abstract

This paper reflects on the process of evaluation of a quality textbook along with the development of a tool for the same. Textbook preparation and its evaluation are difficult tasks which take a lot of time, effort, and wholehearted commitment of the working team. There is a dire need of the evaluation of textbooks according to the present needs of the society as well as updating due to changes in the current scenario of the technological advancements. The main objective of the present paper was to develop a tool to evaluate the textbook. For this, the Investigator organised three workshops in three phases with the users, publishers, method masters/teacher educators and authors in the specific field of school education. In the first workshop brainstorming focussed on the various dimensions of textbook evaluation, subsequent workshop items on various dimensions were framed. These developed items for evaluation tool were mostly open ended. The items/questions on these five dimensions were collected and shuffled to have a draft of the evaluation tool. This draft was presented before the vetting experts identified by the Investigator. The items selected in the tool were easily understandable to all concerned stakeholders and finally linguistic experts edited it so that it may be utilized for the purpose.

Key Words: Content Coverage, Physical, Visual, Style of Presentation, Textbook, Tool, Evaluation aspects

Introduction:

In a developing country like ours, where even the minimum essential requirements of a classroom hardly provided despite OPERATION BLACKBOARD – N.P.E – 1986, the need for quality textbooks can not over emphasized. In fact, textbook is the one useful instructional tool which is easily available both to the teachers and the taught, the two principal users of textbooks.

It serves as a reference guide for the teacher when they are in the classroom, offers ideas for various roles, and encourages both inside- and outside-the classroom activities. It provides the teacher with helpful principles along which he can plan his daily instruction. The student uses the textbook to get ready for class, refers to it while in class, reviews and reinforces what they learned in class, completes homework assignments at home, etc. ready for exams, enjoys leisure reading, and looks for advice and resources for additional study. The textbook is also meant for self-learning by individual students, either in the classroom or at home. The learning that takes place in the home can be fruitful with the help of the textbooks as no other instructional material is available in our homes. For the teacher, the book acts as a syllabus DE FACTO, with the help of which he defines and delimits his teaching content. Thus, the textbook assumes a place of paramount importance in the field of formal education.

The Secondary Education Commission (1952-53) on the standard of production of textbooks for secondary schools in India observes -



“We are dissatisfied with the present production standard of school textbooks and consider it essential that this be radically improved. Mostly books submitted and prescribed are poor specimens in every way-the paper is usually bad, the printing is unsatisfactory, the illustrations are poor and there are numerous printing mistakes. If such books placed in the hands of students, it is idle to expect that they would acquire any love for books or feel interest in them or experience the joy that comes from managing an attractively produced publication.”

The value of textbook as an effective tool of learning and of diffusion of improved teaching methods have been by the Kothari Commission (1964-66) in the following paragraph.

“A good textbook written by a qualified and competent expert in the subject, and produce with due regard to quality of printing, illustrations, and general look, stimulates the students’ interest and supports the facilitator in his work. The provision of quality textbooks, and other teaching and learning materials, can thus be an effective programme for raising standards. The need to emphasize it is all the greater because it requires only a small investment of resources. Moreover, a quality book need not cost appreciably more than one that is produce innovatively.”

The production of quality textbook through frequent evaluation and revision is particularly important in the case of school subject textbook world.

Rationale of the study:

As it is a common belief that the country's future is being shaped in her class rooms hence the researchers is curious enough to know about the overall evaluation of textbooks in all aspects viz. Physical, visual, content coverage, style of presentation and evaluation aspects, so that students can easily understand the content and concepts hence India can accelerate its progress in every sphere of knowledge and the vision of a developed nation comes to be true.

In this context, the researchers could infer that the objectives of the curriculum must be well defined, and they must be reflected in the textbook. The textbook often does not serve the purpose they are supposed to serve. The method of preparation of the textbooks itself leaves much to be desired; only a few studies have reported on the evaluation of the textbooks. The investigator identified this research gap and attempted to fill it in this line for the present investigation.

As the N.C.E.R.T, the apex body working for a qualitative improvement of textbooks at the school level, the materials developed by the NCERT are adopted by different states and India. Therefore, textbooks for scholastic areas of school education in relation to the content and material and style of presentation and Physical and visual aspects must be evaluated, As the Evaluation of textbook has to be done in near future, the researchers is curious enough to evaluate and appraise the worth of the textbook with the help of those very people, who are authors of similar books at +2 stage, the method masters of teacher education departments and those who use them in the classroom both the teacher and taught to find out the difference of opinion among them if any.

Objectives of the Study:

The study has following objectives:

- (i) To define and describe what is going to be measure.
- (ii) To provide a tool for textbook evaluation.

Major Procedures for Evaluation of Textbooks:



The major procedures for evaluation of textbooks are:

- (a) Evaluation by a panel of experts
- (b) Tryout of textbook.
- (c) Pooling the opinions of practicing teachers, administrators, supervisors, and pupils.
- (d) Content analysis technique.
- (e) Empirical or experimental approach; and
- (f) Action research design technique.

Operational definitions of the terms Used:

- i. **Physical** – Its concern's a book's mechanical or physical features. It includes the quality of paper; number of pages, page size, cover, weight, binding, and the price of the textbook is also including in physical feature.
- ii. **Visual** – It includes the look, printing, graphs, charts, diagrams and pictures, size of the letters of a textbook.
- iii. **Content Coverage** – It includes the subject's material and the topics covered and distinct aspects of the subjects as prescribed in the curriculum.
- iv. **Style Of Presentation** – It includes the study material and pattern of presenting of the content. Organization of content may be logical, and child centered and project/practical oriented and illustrative examples.
- v. **Evaluation** – It is the process of ascertaining or judging the value or amount or something by use of a standard appraisal. It is not just a testing programme when applied to textbooks; evaluation implies the process of collecting evidence of strengths and weaknesses of the textbook against specified criteria. Textbook evaluation therefore helps to determine the extent to which a textbook has attained the expected standard and provides the basis and guidelines for further betterment & improvement.

Methodology:

The Investigator formed a panel of experts from the field of textbook publication along with the prime users of the textbooks, teachers and taught. The Investigator organized three workshops to finalize the tool for textbook evaluation. In very first workshop the Investigator focused to finalize the initial parameters for the evaluation of the textbooks. The sample of the evaluators consisting of four teachers four students four teacher educators, four authors, two publishers and two linguistic experts. These panelists suggested to work on physical, visual, content coverage and style of presentation as well as evaluation aspects. The teachers' comment was specific to the conceptual and typographical mistakes or errors and suggested to have a detailed observation with the suggestive changes in an analytical table. Students emphasized that the textbook should be evaluate in terms of its visuals presented in the textbooks. The questionnaire developed based on opinion of the panelist placed for the vetting of the tool and finally presented for the use to evaluate a textbook. The collected data through this tool may be analyze for the improvement of the textbook. The Investigator presented the following tool after conducting three workshops and found it fruitful exercise and the tool has been presented for the benefit of one and all to conduct textbook analysis. The quality textbook production has been a challenge always. Publication remains to be a lucrative business as the publishers wishes to produce qualitative textbooks and would like to multiply their textbooks in the hands of teachers and students.

Experts Panel of tool Construction:



The Investigator formed a panel of evaluators consisting of Teachers and Taught, experience authors, teacher educators as well as publishers for this study in hand. The Task in hand have been initiate purposefully to evaluate class XII Textbooks. The Investigator selected brilliant teachers and students considering them as a prime user of the textbook. Authors and method experts along with two publishers included in the panel. The different stakeholders selected for the opinion about the qualitative aspects were as follows

1. Experienced Teachers -4
2. Intelligent Students of class XII- 4
3. Senior Teacher Educators-4
4. Renowned Authors-4
5. Established Publishers -2
6. Linguistic Experts-2

In this way a panel of 20 Experienced persons provided their Opinion about quality textbooks and their constructive feedback about the best textbooks have been consider in the development of the tool for evaluation of the textbooks.

Construction of Tool:

EVALUATION TOOL FOR TEXTBOOKS:

General Information about the Textbook:

1. Title of the book :
2. Author / Authors :
3. Publisher :
4. Subject :
5. Class :
6. Price (Rs.) :
7. Year of Publication :
8. Evaluator's Signature :
9. Name (in Capitals) :
10. Address :

Instructions For Evaluators:

1. Evaluative criteria (expectations in terms of characteristics of textbooks-Physical and Academic) for Textbooks must be gone through and kept in view while evaluating the book by means of this Evaluation Tool.
2. The Evaluation Tool should be understandable thoroughly and kept in view while going through the book. In case of certain aspects, the recording should made as and when reading the books demands.
3. Otherwise, entries in the tool should recorded by the evaluator after the perusal of the book and, if required, certain portions of the book may be re-look to make the recordings.
4. Wherever, the space given for observation and suggestions is not sufficient, additional entries should also be on the corresponding back page by referring to the portion concerned.



5. Observation and suggestions should be objectively as possible. Subjective response should avoid.

Content Analysis:

Chapter headings	Sub-topic covered

Details of Errors:

S.No.	Page No.	Errors	Suggested modifications

EVALUATIONS OF ACADEMIC ASPECTS OF A TEXTBOOK

A-Textual Content:

Academic aspects	Observations	Suggestions for improvement
1. What is the coverage of syllabus and instructional objectives in the content?		
2. How far the subject-matter is selected? (i) No gaps between subtopics. (ii) Transition is proper or not. (iii) Variety of different areas. (iv) Scope.		
3. To what extent do the topics conform to class standard? (Treatment of the topics)		
4.		

B-Visual aspects:

Academic aspects	Observations	Suggestions for improvement
1. What is the suitability of content to the interest of the pupils? (i) According to Age & background of their interest. (ii) Variety for rural and urban students.		
2. How far the content is selected up to date?		
3. How far the content is treated accurate?		

C-Content organization:

Academic aspects	Observations	Suggestions for improvement
1. How far is the arrangement of content logical?		
2. How far is the content organized according to professed methodology of teaching?		



Academic aspects	Observations	Suggestions for improvement
3. To what extent are pedagogical considerations followed in content organization? (According to maxims of teaching)		
4. How far is the content organization functional? Can it be tried out by the teacher in the class? (Practically-> logical-> Psychological with language as a factor.)		
5. How far is the subject-matter articulated? (Sufficiency in chapters i.e. sufficient background for coming chapter)		
6. How far does the content organization conform to the structure of the subject? (Logical and coherent)		

D-Content Presentation:

Academic aspects	Observations	Suggestions for improvement
1. How far is the text readable and comprehensible?		
2. How far is the continuity of content development properly maintained?		
3. To what extent are verbal explanations clear?		
4. To what extent are verbal explanations accurate?		
5. To what extent are verbal explanations adequate?		
6. How far are standard symbols and abbreviations used?		
7. How far are the solve examples correct and adequate?		
8. How far are puzzles and riddles interesting?		

E-Textual Illustrations:

Academic aspects	Observations	Suggestions for improvement
1. How far are the figures and graphs accurate?		
2. What is the appropriate size and labelling of illustrations?		
3. How far are the illustrations correct to the scale?		



Academic aspects	Observations	Suggestions for improvement
4. To what extent are illustrations printed at appropriate places in the text?		
5. To what degree are the illustrations attractive?		
6. How far the illustrations and abbreviations attractive?		
7. How far are the various parts of figures proportional?		
8. How far do the given illustrations lead to better understanding of the content?		
9. How far are the given illustrations essential for understanding the text?		
10. How far has the variety of illustrations being maintained without resulting in undue increase of cost?		

F- Instructional Exercises:

Academic aspects	Observations	Suggestions for improvement
1. How far are the exercises distributed over realistic situations? (i.e., situations should not be odd).		
2. How far are the variety forms of the exercises essential? (Questions should be easy type, objective type, oral, written, and practical type)		
3. How far do several types of exercises serve their purpose? (For drill, recapitulation, application, diagnosis, motivation etc.)		
4. How far are the exercises sufficient? (All the teaching points should be covered. There should be coverage of all the objectives. There should not be too many exercises.)		
5. How far are the exercises graded? (Both for slow learners and gifted students.)		
6. How far is the placement of the exercise proper? (Should be of difficulty-wise, sequential & content-wise).		
7. What is the accuracy of the answers to the problems?		



G-Additional Aspects:

Academic aspects	Observations	Suggestions for improvement
1. How far is the title brief and meaningful?		
2. What distinctive features are given in the preface/ foreword/ instructions?		
3. How detailed is the table of content?		
4. How has the syllabus been provided?		
5. How exhaustive are the instructional objectives given?		
6. To what extent is the list of abbreviation/ symbols exhaustive?		

H-Evaluation of Physical Aspects:

Academic aspects	Observations	Suggestions for improvement
1. How far is the book size convenient to manage?		
2. How far is the design of printing appropriate? (Margin, spacing and generalization boxes etc.)		
3. What is the suitability of the type-size of the text?		
4. How far is the quality of paper satisfactory?		
5. How far is the cover page attractive?		
6. How much is the binding durable?		
7. What is the reasonableness of the price?		

Discussion:

A textbook is a tool for a teacher to teach what is prescribe in the textbook. It helps the teacher to provide home assignment to his students. It helps him to set question papers. Therefore, they are interested in quality textbooks even their prices are high. The teacher expected to suggest their improvement by pointing the errors.

The Evaluation tool will be useful for the teachers who are using these textbooks as they will be aware of the numerical errors and conceptual mistakes. They can correct themselves and read other textbooks prepared by other organizations.

This evaluation tool has developed with keeping in mind all necessary aspects generated after keen observations of panelists for the purpose and the Investigator. Various subject textbooks mentioned in the school curriculum may be evaluate with the help of this tool. This tool is comprehensive enough for textbook analysis. It considers content analysis, physical analysis, and visual aspects. A textbook is a tool for the teacher to teach what is given in the textbook. It helps the teacher to provide home assignments to his students. It helps him to set question papers. Therefore, they are interested in quality textbooks even if their prices are high. The teacher is supposed to suggest improvement by pointing out the errors. Both textbook writers and publishers will benefit by knowing the



errors/mistakes and suggestions for the improvement of the textbook so they can modify the textbook.

Conclusion:

The present questionnaire will be helpful in evaluating the textbooks. Moreover, it will be helpful for teachers and student teachers(trainees) to complete their assignments on textbook analysis during their school experience programme. This evaluation tool is comprehensive enough for researchers to undertake studies related to the appraisal/evaluation of the textbooks. Different scholastic textbooks may be evaluated with the help of this tool. For ensuring quality textbooks, it is necessary to undertake research studies for evaluation of textbooks so that contextualised improvements can be incorporated.

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