CHAPTER III

CURRICULUM LOAD AND TRANSACTION THROUGH TEXT BOOK ANALYSIS

3.1 Introduction
3.2 Effective Criteria of a Textbook
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3.4 Analysis of Different Text Book Models Realizing Curriculum Load and Transaction
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3.1 Introduction

The transaction of school level-based curriculum in Commerce considers the use of evaluating textbooks of class XI. It provides the information about the functions of corporate bodies and social organizations as well; the textbooks also consist of learning guiding in the form of activities which guide the students to achieve the competency in Commerce. Textbooks are best seen as a source in achieving aims and objectives that have already been set in terms of learner needs.

A text book means a created material design as materials the learner’s knowledge and experience. Text book also can be defined as a book prepared for school is students in teaching learning process. Good textbooks should be relevant with the curriculum. It also can support the implementation of curriculum.

Teachers and students can build and develop their competency in Accountancy better if they use qualified textbooks which provide and support the material needed. Moreover it will transact better on the basis of demands of learners. There are many publishers that have published accountancy textbooks for the first year students of Senior High School. The textbooks should hold a main instrument to do the curriculum which has been arranged before. However, sometimes some of them are not appropriate with the standard of curriculum yet. Teachers should think of textbooks as tools — they are only as good as the person using them. A hammer in the hands of a competent carpenter can be used to create a great cathedral or an exquisite piece of furniture. In the hands of someone else, the result may be a rundown shack or a rickety bench. How you decide to use textbooks will depend on many factors. Textbooks are
intended to teach not only facts but also to influence values and behavior.

Textbooks play an important part in education, transmitting not only facts and figures, but ideas and cultural values. The words and pictures children see in school influence the development of the attitudes they carry into adult life. These words and pictures not only express ideas, but are part of the educational experience which shapes ideas. During the early years of textbook studies, textbooks were often regarded as quasi-independent entities.

The examination focused almost exclusively on the content and the written text. Schoolbooks, however, are constructed as educational tools. How do teachers and students use them? Are textbooks at the focus of classroom teaching do pupils learn parts of the text by heart? Do teachers have to follow the text chapter by chapter or are they free to choose whatever coincides with the students' interests and desires? On the one hand, teachers rely on textbooks and 'textbooks provide expertise, are time savers, and provide security for both teachers and students in outlining content, scope and sequence'. On the other hand, to summarize the main function of textbooks in such a short formula would certainly provoke the protest of many teachers who do not feel dependent on textbooks as textbooks provide 'primarily ... a source of information rather than ... the structure of a course'. But most of the time all the necessary quantitative and qualitative virtues are missing. So it is the intention of the researcher whether textbooks can really meet the criteria or not.

3.2 Effective Criteria of a Textbook

Before the lesson:

1. Teachers refer to the learning objectives on the introductory page to have a better picture of what the students will learn in the chapter.

2. Teachers may refer to the "Key words" section on the introductory page of each chapter for the correct mathematical terms used in teaching and learning process.
3. Teachers may refer to the "Exploring" section on the introductory page for other resources related to the chapter. Teacher may use the same section, and asks students to do some reading before starting a new chapter. The idea of this section is to cultivate the habit of reading and encourage self-access learning.

4. Teachers refer to the learning outcome section at the beginning of each learning objective. The learning outcomes describe the mathematical skills students should be able to master after the teaching and learning process.

5. Teachers identify the learning outcome/outcomes that will be achieved in a lesson.

6. Teachers prepare lesson accordingly, using the materials, examples and exercises in the textbook.

**During the lesson:**

7. The textbook is organized such that
   i) There is at least one example and one exercise (practice) for each learning outcome.
   ii) There is one formative exercise covering all the learning outcomes after each learning objective.

8. The lesson may proceed according to the organization of the textbook.

9. Teachers may use the well-planned activities in the textbook suggested in the textbook so that students have hands-on experience in the learning process.

10. Activities involving the use of the Geometer's sketchpad (GSP), scientific calculators and graphing calculators are inserted where appropriate. Teachers are encouraged to use these activities in their lesson.
At the end of each chapter:

11. Teachers use the “Review” section of the textbook, which is presented in the form of a concept map, for students to have a quick review of what have been learnt in the chapter.

12. Teachers use the “Chapter Review Exercise” to test students on the understanding of concept learnt in the chapter.

Quality education is one of the modern demands as well as slogan of all over the world. Development of professionalism among the teacher is considered essential condition for quality education and quality learning. Along this requirement quality textbook is another component for quality education.

This study is expected to have two kinds of benefit

1. Practical Benefits:
   a. The writer and readers will get the knowledge about how to make the textbooks for effective and attractive to the students.
   b. The teacher knows how far the textbook follows the curriculum demand.

2. Theoretical Benefits:
   a. Based on the result of this research, it can give contribution to material design and material development in teaching accountancy in high schools.
   b. The result of this study might be used as a reference for others who conduct the similar research.

As a central disseminator of knowledge, the textbook has maintained its position in spite of the emergence of electrical data transmission and access to digital educational resources. The majority of teachers rely on the teaching of the subject matter knowledge that is available in the textbook (ref. Sanchez & Valcárcel 1999). However, it is very rare that the teachers of the subject evaluate the textbooks themselves, although they would benefit most from the concrete results of textbook evaluations. As groups of students are different as
far as their knowledge, skills and experiences are concerned, the study of textbooks will facilitate lesson planning and aid in finding and applying versatile work methods and facilitate individualization of instruction. Both in teaching and in textbooks, it is important that scientific concepts are made accessible to the students in a number of different ways so that each student discovers his or her own optimal approach to studying and learning. This is important on the one hand because students need to find an approach that is compatible with their individual worlds of experience and on the other hand to avoid leaving the student with the unfortunate impression that concepts can be defined on the basis of a single occurrence of the concept. The teaching should widen sometimes even change – the student’s world of mental states in such a way that the student, as a result of instruction, will be able to understand the bi-directional dynamics (induction-deduction) between real world phenomena and theory.

Main objectives of UNESCO-strategy for text book analysis:

1. Building of quality assurance systems,
2. Development of higher technology,
3. Lower cost publishing capacities and distribution systems,

(Comprehensive Strategy for Textbooks and other Learning Materials, UNESCO, 2005).

It is not very easy to define how the quality of a text book will be maintained properly. In this study we are trying to visualize the quality of a text book on the basis of curriculum load and transaction.

3.3 UNESCO – Strategy for Textbook Analysis

1. In its support of the right to quality education for all.
2. Textbooks for the 21st century must reflect more inclusive pedagogies.
3. Diversified content which not only impact academic knowledge, but also
4. Engage learners in interaction leading to the acquisition of life skills and universally shared values.

5. It is also important to recognize that in a rapidly changing world, the need for people of all ages to grasp new concepts, understand different perspectives, and acquire more complex technical skills is more pressing than ever before.

6. Hence it is increasingly important to respond to learners in ways that acknowledge their life experiences, abilities and knowledge of the world and to equip them with the tools needed to become life-long learners. (Comprehensive Strategy for Textbooks and other Learning Materials, UNESCO, 2005).

So what are more important for analyzing a text book may be mentioned in two dimensions:

1) Curriculum should be life centric.

2) Pedagogical practices and academic knowledge must go hand in hand.

A textbook is a collection of the knowledge, concepts, and principles of a selected topic or course field. Most textbooks provide teaching materials, and activities to use throughout the academic year.

Textbooks provide several advantages in the classroom:

- Textbooks are especially helpful for beginning teachers. The material to be covered and the design of each lesson are carefully spelled out in detail.

- Textbooks provide organized units of work. A textbook gives you all the plans and lessons you need to cover a topic in some detail.

- A textbook series provides you with a balanced, chronological presentation of information.

- Textbooks are a detailed sequence of teaching procedures that tell you what to do and when to do it. There are no surprises everything is carefully spelled out.
• Textbooks provide administrators and teachers with a complete program. The series is typically based on the latest research and teaching strategies.
• Good textbooks are excellent teaching aids. They are a resource for both teachers and students.

For removing curriculum load and for better understandability following points are mentionable:
1. Understanding and learning of factual knowledge.
2. Learning to apply knowledge.
3. Analyzing and learning to solve problems.
4. Learning how to learn.
5. Learning procedures of thinking.

In the process of analysis of textbook it needs to be examined that how the textbook helps understand factual knowledge (1.), what conditions it provides for learning to apply this knowledge (2.) and to solve problems (3.), whether it provides appropriate learning strategies and methods (4.), develops thinking embedded in knowledge (5.) and is able to affect learners’ personality and attitudes.

**Definition of Textbook:**

Textbook may be defined as a teaching tool (material) which presents the subject matter defined by the curriculum.

A textbook is a manual of instruction or a standard book in any branch of study. They are produced according to the demand of the educational institutions. Textbooks are usually published by one of the four major publishing companies. Although most textbooks are only published in printed format, some can now be viewed online.
A textbook is a collection of the knowledge, concepts, and principles of a selected topic or course. It's usually written by one or more teachers, college professors, or education experts who are authorities in a specific field.

Textbook means a standard book about a branch of study. textbook means a book used in schools and colleges for the formal study of the subject.

### 3.4 Analysis of Different Text Book Models Realizing Curriculum Load and Transaction

1. In the 1980’s, researchers devoted a lot of attention to the issue of textbook components. This line of research was in harmony with the widespread idea which defined textbooks as a special type of text with a specific function. Therefore, they assigned a unique importance to the presence of certain elements characteristic of textbooks (e.g. basic text, explanatory text; advance organizer, didactical apparatus). According to this approach, if a researcher wanted to design a good textbook, he/she simply had to be aware of the special components that were typical of textbooks.

<table>
<thead>
<tr>
<th>Structural Components of Textbooks</th>
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<tbody>
<tr>
<td><strong>Text</strong></td>
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<tr>
<td>Basic text</td>
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<tr>
<td>Supplement text</td>
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<tr>
<td>Explanatory text</td>
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<tr>
<td>Parallel with Teacher’s lecture.</td>
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<tr>
<td>Source</td>
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<tr>
<td>Summary</td>
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<tr>
<td>Reading</td>
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<tr>
<td>Explanation, Comment, Note,</td>
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<tr>
<td>Explanation</td>
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<tr>
<td>Footnote etc.</td>
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</table>

Researchers put together several parallel descriptions and lists about the structural elements of textbooks. One of those lists was the widely used survey
prepared by Dmitrij Sujev about the structural components of the “modern textbook” in 1986 (Bamberger, 1998). His categorization was based on the distinction of texts and components outside of texts.

The Structural Components of Textbooks by D. Sujev:

When the assessment is based on the examination of structural elements, textbook experts, first of all, check if the textbook has all the components that a textbook is generally expected to have (e.g. are there enough pictures / illustrations in the textbook?). Then, they carefully examine if the design of each element corresponds to its function in the textbook (e.g. Do the pictures correspond well to the contents of the text?). They may verify if the various textbook elements contribute sufficiently to the accomplishment of the teaching-learning objectives (e.g. Do the illustrations provide enough opportunities for individual student work?). Last, but not least, they evaluate each and every element of the book from the perspective of the age specificities of students (e.g. are the charts and the maps understandable for children?). The main feature of these inquiries is that the quality criteria for the textbook are strongly related to the components of the textbook.

The numerous elements of the list of criteria are also arranged around the following keywords: texts, illustrations, questions and exercises, informing apparatus, etc. When relying on such a set of criteria, experts focus mostly on the textbook itself; they examine whether it meets the traditional formal and content-specific requirements. As opposed to the above static approach, a more dynamic view is reflected when the quality requirements of the assessment are deduced from the functions expected of a textbook, and not from its structural elements.
The Functional Approach of Textbook Quality Reflected through the Study of J. Mikk:

In the case of the functional approach of quality, researchers first have to define the functions that can be required of a textbook. Next, they have to select those components and quality features of a textbook that may play a role in the accomplishment of the individual functions. The quality criteria concerning the structural elements receive a new meaning with respect to textbook functions. For instance, in the function-based sets of criteria, the requirement of text comprehensibility appears as a condition of transferring knowledge, while the requirement of interesting tasks is a prerequisite to motivation (Mikk, 2000). The sets of assessment criteria based on textbook functions can be constantly developed in two directions.

<table>
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<tr>
<th>Function</th>
<th>Characteristic</th>
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<tr>
<td>Motivation</td>
<td>Illustrated</td>
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<td></td>
<td>Interesting</td>
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<td></td>
<td>Containing problems</td>
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<tr>
<td>Information</td>
<td>Easily readable</td>
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<td></td>
<td>Life-related</td>
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<td></td>
<td>Scientific correctness</td>
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<tr>
<td>Systematization</td>
<td>Structured</td>
</tr>
<tr>
<td>Co-ordination</td>
<td>Related to other textbooks</td>
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<tr>
<td>Differentiation</td>
<td>Graded material</td>
</tr>
<tr>
<td>Guiding learning</td>
<td>Instruction for learning</td>
</tr>
<tr>
<td>Learning strategies</td>
<td>Fostering thinking</td>
</tr>
<tr>
<td>Self-assessment</td>
<td>Question and test</td>
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<tr>
<td>Value education</td>
<td>Personification</td>
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On the one hand, the list of textbook functions can be updated and specified, following the changes of thinking about knowledge, teaching, learning, and the learning environment. On the other, with the help of research based on pedagogical measuring and assessment, it can be stated more precisely under what conditions the textbook components can best fulfill their role. It can be tested, for example, by classroom experiments what kinds of visual elements improve the most the performance of students from the perspective of understanding pieces of knowledge.

**Sets of Assessment Criteria based on Textbook Functions (J. Mikk):**

Several lists have been drawn up about textbook functions in international literature. The following are usually common to each of them:

1. Knowledge transfer (representation, transformation, information).
2. Learning orientation (direction, process orientation).
3. Practice (assuring results, fixing).
4. Structuring.
5. Coordination (organizing connections).
7. Differentiation (rationalizing).
8. Self-evaluation (checking).
9. Education of values (personality development).

When assessing a textbook from the perspective of the fulfillment of textbook functions, we are mostly interested in its effect on the teaching-learning process. This is an important step forward compared to the sets of criteria based on structural elements, examining the textbook itself.

At the same time, we have to note that the list of functions regarded processes principally from the point of view of the activities of teachers and not from that of students. Knowledge transfer, learning orientation, motivation, differentiation, and the education of values are the tasks of teachers, and in this
context, even the functions of practice, structuring, and coordination may be
interpreted in that way. Self-evaluation is the only function that is undoubtedly
related to the activities of students. Thus, the lists of textbook functions of the
1980's answered the question of what role the textbook fulfills in teaching and
not what role it fulfills in learning. Since then, the teaching-centered approach
has been replaced by the learning-centered approach. Nowadays, when we
evaluate the work in the classroom, our main concern is not what the teacher
does, but what the students do. We want to know how efficient or inefficient are
the activities taking place in a class. The professional level of a teacher's work
is also judged on the basis of this principle. This change of mentality has also
transformed the notion of textbook quality. Taking into consideration the needs
of learning-centered instruction has become an important task of pedagogical
textbook modernization.

Textbook Assessment Giving Priority to Systematicity:

Putting learners and learning in the centre and interpreting learning as a
constructive learner activity raised new questions about textbooks. How does a
textbook affect the way students think about the world and what they
understand from it? How does it affect the students’ ways of thinking and
learning? How can the role of textbooks be emphasized in the domain of the
development of thinking and the acquisition of learning strategies and methods?
The responses to these questions brought about a paradigm shift in the system of
textbook assessment as well.

Study of Chambliss and Calfee:

The title of the book of M. Chambliss and R. C. Calfee, “Textbooks for
Learning – Nurturing Children’s Mind” expresses well the intention of the
authors. In their opinion, textbooks should shape the ways students think and
help them learn as efficiently as possible. Thus, they regard textbooks “as a
device for conveying intellectual ideas". (Chambliss & Calfee, 1998). Educating students' mind is often hindered by the idea still very much part of common wisdom that by acquiring the sufficient amount of knowledge, somehow and some day, students will be able to understand and apply the global principles, models, and theories of a given area of education or science. In other words, at one point, quantity will turn into quality. However, this pedagogical belief is supported neither by theory, nor by practice. According to M. Chambliss and R. C. Calfee, textbooks can have a key role in encouraging teachers to follow a different strategy and concentrate on establishing the essential links from the beginning, so that by going over these connections again and again, they could develop their students' mind and thinking more efficiently than before.

<table>
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<tr>
<th>THEMES</th>
<th>ELEMENTS</th>
<th>LINKAGES</th>
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<tbody>
<tr>
<td>COMPREHENSIBILITY</td>
<td>Familiar Content</td>
<td>Words</td>
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<td></td>
<td>Interesting</td>
<td>Sentences</td>
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<td></td>
<td>Content</td>
<td>Paragraphs</td>
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<td></td>
<td>Coherent Content</td>
<td>Texts</td>
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<td>CURRICULUM</td>
<td>Expert lens</td>
<td>Knowledge</td>
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<td></td>
<td>Models</td>
<td>Skills</td>
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<td></td>
<td>Principles</td>
<td>Attitudes</td>
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<tr>
<td>INSTRUCTION</td>
<td>Student Centered</td>
<td>Connection</td>
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<td></td>
<td>Community of inquiry</td>
<td>Organization</td>
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<td></td>
<td>Constructivism</td>
<td>Reflection</td>
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<td></td>
<td>Zoom lens</td>
<td>Extension</td>
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The authors believe that a textbook may become such an instrument only if some well-chosen design principles are consistently observed in it regarding the choice of content, the wording of lessons, and the illustrations. Designers must be consistent also in the sense that the whole of a series of textbooks, the
individual textbooks of the series, the topics of the textbooks, and their lessons should all be carried out according to the same design principles. Therefore, it is a prerequisite to effectiveness that the makers of the textbook series know exactly what they would like to make an impact on and by what means and that they also keep all of that in mind while putting together the textbooks. Chambliss and Calfee recommend three design principles to textbook designers: comprehensibility, exemplary curriculum, and student-centred instruction.

**Design features (Chambliss and Calfee):**

The central idea of the design principle called “exemplary curriculum” is that textbooks should focus on the acquisition of the most adaptive theories and notions of an area of education.

To give an example for adaptive theories, the authors mention the adaptation of living organisms to their exterior environment from the subject of biology and plate tectonics from geography.

By being familiar with these theories, we can better understand the causes and the functioning of many specific natural phenomena. In the case of plate tectonics, let us just think about understanding the connections between earthquakes, volcanoes, oceanic trenches and the shape of continents.

According to Chambliss and Calfee, institutional education has the task to prepare students to be able to see the world in a way different from the usual models of interpretation. Looking through the “expert lens”, they may become capable of capturing an infinite number of phenomena as coherent systems, and in that way, scientific theories come alive for them as adaptive knowledge helping to understand new information and phenomena.

However, for the sake of success, theories, notions, and principles must be carefully selected for the syllabus, as they will only be helpful to the students if there is enough time to understand them. Then, textbooks have to take every opportunity to present and apply the theories, notions, and principles chosen.
They have to allow students to try the advantages of knowing and using a well-applicable model of interpretation as many times as possible for understanding new phenomena and reflecting on them. The design principle of "student-centered instruction" is inseparable from the principles of "comprehensibility" and "exemplary curriculum".

Student-centered instruction establishes connections with the student's knowledge (connecting), it organizes new contents into comprehensible structures which are easy to recall (organizing), it allows students to think independently (reflecting), and it provides an opportunity to extend what has been learned and use it in new contexts (extending). Based on the initials of the English words describing the four phases of the learning procedure, this educational strategy is called CORE.

The most important message of the model for textbook design and assessment created by Chambliss and Calfee is that textbook designers must comply with the new approach of knowledge according to which knowledge is a system composed of certain elements (knowledge, abilities, attitudes) the quality of which is determined not so much by the amount of the elements, but by how well the system is organized. Therefore, the knowledge of students must also be developed as a system in the course of learning. Textbooks can contribute effectively to that only if they, too, become more than the sum of their components. Textbooks must also represent a system of knowledge and instruments structured on the basis of certain principles, and in order for that to happen, they must put the criteria favoring systematicity in the foreground in the course of development and assessment.

3.5 Textbook Assessment

In 1985, a large-scale reform initiative was launched in the United States with the objective of improving the scientific knowledge of the youth. In 1993, the developers of the program that became known as Project 2061 reformulated
the material that American high school graduates should know. Scientists and pedagogical experts equally supported the new set of criteria that defined the objective of understanding key ideas essential for comprehending the phenomena of the natural environment. Before selecting the items of knowledge, they determined which key ideas and principles were worth knowing and which were essential to know and how many of these could actually be acquired by the students within the given time frame.

<table>
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<tr>
<th>Content Analysis</th>
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<tbody>
<tr>
<td>Alignment</td>
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<td>Building a Case</td>
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<tr>
<td>Coherence</td>
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<td>Beyond Literacy</td>
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<tr>
<td>Accuracy</td>
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The seven principal categories of the set of criteria of the pedagogical analysis are divided into further sub points, and there are indicators belonging to each sub point. The indicators specify it for the experts carrying out the study the presence of which component or quality indicator they are supposed to check in order to assess the fulfillment of the given criterion. The fifth main category of the pedagogical assessment is “Promoting Students’ Thinking about Phenomena, Experiences, and Knowledge”. One of the sub-points of this category is entitled “Guiding student interpretation and reasoning”. When evaluating the textbook from this aspect, the experts performing the assessment took into consideration the following indicators:
Guiding student interpretation and reasoning

Does the material include tasks and / or question sequences to guide student interpretation and reasoning about experiences with phenomena and readings?

Indicators of meeting the criterion

1. The material includes **specific** and **relevant** tasks and / or questions for the experience or reading.
2. The questions or tasks have **helpful characteristics** such as
   a. framing important issues
   b. helping students to relate their experiences with phenomena or representations to presented scientific ideas
   c. helping students to make connections between their own ideas and the phenomena or representations observed
   d. helping students to make connections between their own ideas and the presented scientific ideas
   e. anticipating common student misconceptions
   f. Focusing on contrasts between student misconceptions and scientific alternatives.

Rating Scheme

**Excellent**: Material consistently meets all three indicators.

**Satisfactory**: Material consistently meets indicators 1 and 2.

**Poor**: Material meets indicator 1 at best.

Textbook Assessment Focusing on the Components of Learning:

Putting into practice new teaching and learning methods based on the results of pedagogical research is an important condition for the modernization of textbooks. Sets of criteria used for the assessment of textbooks may contribute significantly to accelerating this process if they are able to translate the new pedagogical principles and proposals into the language of textbooks.

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They need to formulate it very precisely what textbooks should be like in order
to be in harmony with the new learning-centered pedagogical approach. Sets of
assessment criteria reflecting a modern approach can help textbook designers
also to have the courage to break away from the traditional textbook patterns,
and experiment with new solutions. The new development-oriented sets of
criteria should capture the problem of the quality and the user-friendliness of
textbooks from the perspective of learning and learners. Therefore, as opposed
to former sets of criteria, they should not be organized around textbook
components (texts, illustrations, didactical apparatus, and information tools) or
teaching functions (knowledge transfer, motivation, organization, coordination,
differentiation, learning orientation), but around the components of learning:
1. Understanding and acquiring knowledge.
2. Learning the operations allowing for the application of knowledge.
3. Learning to analyze problems, problematic situations and how to solve them.
4. Learning to learn.
5. Learning ways of thinking.
6. Learning social relations and attitudes.

Sets of criteria for textbooks should be constructed and elaborated in such
a way that they clearly reveal the array of tools that a textbook uses to facilitate
the comprehension and application of knowledge, the development of problem-
solving abilities, the learning of learning, the evolution of the ability to think
and the shaping of positive attitudes. With the help of a set of criteria having
this kind of structure, the whole content, the structure, and the components of a
textbook could be evaluated simultaneously from various points of view. Then,
on the basis of the evaluation, it could be stated whether the textbook provides
the appropriate conditions for each essential component of learning. Does it take
every opportunity that a textbook may have to help students in sensible
learning? Whether we can put into practice textbook assessment based on the
components of learning depends on the fact if we manage to assign adequate assessment criteria to the individual components of learning.

<table>
<thead>
<tr>
<th>Aspects of Textbook Analysis</th>
<th>Criteria of Aspects</th>
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| 1. Understanding and learning of factual knowledge | Structuring of Content  
Structuring of Components  
Content of Factual Knowledge  
Quantity of Factual Knowledge  
Explanation of Factual Knowledge  
Presentation of Notions  
General Quality of Wording  
Adjustment of Texts to Age Group Characteristics  
Didactic Tools Serving Understanding  
Illustrations and Pictures Helping to Understand  
Information  
Helpful Tools for Adjusting to Learners' Preliminary Knowledge |
| 2. Learning to apply knowledge | Tools for Developing Skills and Competencies  
Tools for Integrated Development of Knowledge and Competencies  
Conditions of Applying Notions  
Conditions for Developing Knowledge Elements to a Knowledge System  
Tools for Helping the Application of |
<table>
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<tr>
<th>Aspects of Textbook Analysis</th>
<th>Criteria of Aspects</th>
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<tbody>
<tr>
<td></td>
<td>Acquired Knowledge in Everyday Life</td>
</tr>
<tr>
<td>3. Analyzing and learning to solve problems</td>
<td>Tools for Helping to Learn Problem Solving</td>
</tr>
<tr>
<td>5. Learning procedures of thinking</td>
<td>Tools for Developing Thinking Abilities Tools for Learning Procedures of Thinking</td>
</tr>
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</table>

The right indicators to the proper interpretation of those criteria. When elaborating these criteria and indicators, knowledge about learning theory and learning methodology must be linked to the empirical experiences in the area of textbook design. As a matter of fact, that is how designing should work in the case of each and every textbook.
Applying Sets of Criteria in the Procedure of Textbook Certification and in Textbook Development:

Although the creators of sets of criteria usually do their best to collect every important quality component, the list can always be extended. Therefore, we must consider whether it is necessary to include all the possible quality requirements among the criteria of the procedure of certification. There are three arguments against it. First of all, there is no textbook that could or would want to satisfy all needs simultaneously. Secondly, there are some otherwise important requirements of quality which are hard to identify exactly in the course of textbook certification. Thirdly, having too many criteria can divide the assessors' attention. In our opinion, textbook certification should be centered on the issues of comprehensibility and student activity; this is where pedagogical reviews should be the most thorough, severe, and consistent in the future. At the same time, we also believe that it is important that following the reform of the criteria of certification, a wide-ranging professional debate be started about every fundamental question of textbook quality. Apart from textbook designers and textbook experts, these professional discussions should involve teachers and pedagogical researchers as well. It is together with them that we would go over all the elements that are quintessential for a textbook in order to be an effective and reliable tool of school education. We could reconsider the issue of textbooks by concentrating especially on the questions of learn ability, ability development, and the changed learning environment.

3.6 The UNESCO Guidebook on Textbook Research

Textbook Research by Falk Pingel of the George Eckert Institute:

After decades of involvement in textbook research UNESCO has at long last produced a methodological guidebook. In the book author Falk Pingel outlines many of the considerations that textbook analysts need to take before and while embarking on research projects. Essentially, Pingel emphasizes the
complexity of textbook research and the need for researchers to consider all eventualities during their preparation to conduct a project.

**Defining a Textbook Sample:**

In any textbook study there are few things more important than a precisely defined sample. For Pingel, the type and quantity of textbooks to be analyzed are essential considerations for analysts wishing to generalize on the basis of research findings. Practical considerations such as the number of countries to be included in an international study are also important details for a research project in its preparatory stages (pp. 21-22).

**Quantitative and Qualitative Analytical Techniques:**

How can we analyze textbooks having defined and selected a sample? Before describing specific research methods and techniques, Pingel gives a brief outline of the two major concerns in textbook research. The first concern regards the pedagogical implications of the text. In other words, how are textbooks used by teachers and received by students? The second concern regards the content of 'the text itself'. In other words, what is included in the text, what is omitted and why? Having made this distinction Pingel proceeds to give a 'short overview about methodological approaches, with a few examples of categories for analysis' (p. 22). Pingel emphasizes the fact that different methods reflect different purposes and that 'each approach provides answers to different questions'. Pingel then proceeds to outline the key features of quantitative and qualitative methods used in textbook research.

Overall, Pingel stresses the complimentary nature of both quantitative and qualitative techniques. Quantitative methods are used to measure aspects of the text in terms of frequency and space. This may take the form of quantifying how frequently particular words or names, places or dates appear across a sample of texts. It may also involve measuring how much (or how little) space is allocated
to a particular theme, event or topic. As in other fields of social research, quantitative methods are useful when analyzing large samples. However, they enable breadth at the expense of depth telling ‘us a great deal about where the emphasis lies, about selection criteria, but nothing [in themselves] about values and interpretation’ (p. 45).

Pingel describes qualitative methods in greater detail. With qualitative methods of textbook analysis depth presides over breadth. As such, the results tend to be richer with regard to understanding the way that information is presented in a text yet more difficult from which to make generalisations. Pingel then goes on to list different qualitative approaches to textbook analysis. First he describes hermeneutic analysis, used to unearth hidden meanings and messages in textbooks. He then briefly outlines linguistic analysis, involving the examination of words and terminology with controversial meanings and cross-cultural analysis, where all sides in a bilateral or multilateral study examine each other’s textbooks to identify bias. Finally, he discusses discourse analysis, where the researcher deconstructs textbook content to identify what information, groups and events the author values, takes for granted, valorize or regards as unimportant. Pingel also refers to contingency analysis, a new method combining qualitative and quantitative techniques to analyze the representation of both text and images. However, his description of this last method is extremely vague (p. 45). Unfortunately, there are many qualitative methods for textbook research that Pingel fails to mention all together. These include disciplinary or historiographical analysis, used to investigate the manner in which the discipline of history is conveyed, visual analysis, used to evaluate the ways in which images, charts and maps are employed, and question analysis, used to assess whether in-text questions facilitate the development of students’ memorization or critical thinking skills. In addition, critical analysis, used to identify and expose textbook portrayals that perpetuate unequal social relations in society and structural analysis, used to investigate exactly how historical
events and processes are structured or ‘delivered’ across textbooks, are not mentioned (Foster, 2002). Finally, there is the whole issue of semiotic analysis to identify signs and signifiers in texts, as theorized by cultural theorists such as Roland Barthes (1976). Although a popular tool for textual analysis in cultural and literary theory, the relevance of semiotic techniques for textbook analysis is not explicitly acknowledged by Pingel.

**Designing an Analytical Instrument – Categories and Questions:**

As William Fetsko, the American textbook analyst, comments, ‘Time spent in designing the analysis instrument will pay great dividends throughout the process’ (Fetsko, 1992, p. 133). To ‘design’ the ‘instrument’ researchers must formulate a framework or criteria of categories and questions fine-tuned to the specific aims and objectives of a particular textbook project. The categories and questions are then applied to all the textbooks in the sample from which analysis of the results may proceed. In the UNESCO Guidebook Pingel refrains from giving examples of completed analytical instruments stating that the ‘categories and methods for analysis can only be presented in a very general way’ (1999, p. 47) due to the very specific nature of every project. Instead, Pingel gives a much more general ‘List of Criteria for Analysis’ which is set out (quoted directly) below:

**Textbook Sector Components:**

- Educational system.
- Guidelines / curriculum.
- Adoption procedures.
- Structures of publishing houses.
- Formal criteria.
- Bibliographic references.
- Target group (school level, type of school).
- Dissemination.
Types of Texts / Mode of Presentation:
- Author’s intentions (if specified).
- Descriptive author’s text (narrative).
- Illustrations / photos / maps.
- Tables/statistics.
- Sources.
- Exercises.

Analysis of Content:
- Factual accuracy / completeness / errors.
- Up-to-date portrayal.
- Topic selection / emphasis (balance) / representativeness.
- Extent of differentiation.
- Proportion of facts and views / interpretation.
- Perspective of presentation.
- Comparative / contrastive approach.
- Problem-oriented.

The list is composed of 5 main focus categories (main criteria). Within each category a series of sub-headings (sub-criteria) are listed around which probing questions could be formulated in accordance with the specific aims and objectives of a given project. The list of criteria is useful but, in the attempt to provide a generic overview, perhaps overly general.

Additional Considerations:

Finally, Pingel discusses other dimensions and practical considerations essential to the textbook research process. Pingel writes of the implications of a country’s economic circumstances for the production and physical quality of textbooks. He also talks about the very difficult task of determining what
“pseudo-factual” content should be included in texts. Although the process of including and omitting specific content virtually guarantees contention, Pingel emphasises the difficulties involved in those cases where disagreements appear irreconcilable (pp. 24–26). Pingel then goes on to describe spatial and time variables within textbook research. Spatial and time dimensions refer to the dynamic between the locality of the textbook and of the textbook researcher (pp. 26–27). In other words, textbook researchers with different backgrounds may evaluate textbooks from different places and at different times in different ways. Finally, Pingel draws attention to the idea of official public memory and the ways in which these memories are ‘masked by the different ways in which textbooks are used’ (p. 27).

3.7 Assessing the UNESCO Guidebook

The UNESCO Guidebook on Textbook Research and Textbook Revision is the first of its kind and in this sense an important step. Falk Pingel provides an overview – a general methodological framework – on how to go about conducting textbook research from conceptualization, to design, to practice, to findings and finally their dissemination. He raises many questions and rightly brings attention to the numerous practical and methodological pitfalls faced by the textbook researcher. To this extent there is much that is useful in Pingel’s guidebook.

However, what Pingel does too little of is guide the prospective textbook researcher in how to analyze texts. Two or three examples of methodological instruments used for analyzing specific aspects of a given text or sample of texts together with clear explanations would have sufficed. Pingel does have an answer to this, however, when he refers to the methods of analysis presented in the book as ‘a minimum standard for textbook analysis’. He then explains that this is due to the fact that, ‘Often our questions and aims are more specific and we [ourselves] have to further refine the instruments to be used in the study’
There is some truth in this. However, a minimum standard is perhaps not enough to enable potential researchers to understand the processes involved. More examples were needed to illustrate Pingel’s discussion of methods and procedures. This is a guidebook, the most important function of which is to guide.

Study of Robert Stradling:

Critique implies an ideal or at least a ‘provisional’ or ‘located’ ideal. The act of arguing what is problematic about a thing is simultaneously to imply what is not problematic or at least “less problematic”. As such, when we critique, judge or evaluate an object or a relationship between things we implicitly suggest a hierarchy. To make improvements on x or y, to suggest ways in which things may be presented more clearly than before, to increase awareness of particular issues by doing this or that and so on. Critique of an object is, therefore, based on the implicit orientation of the researcher, the located subject, and implies a ‘located’ ideal. In his recent book, Teaching 20th-century European history, published in collaboration with the Council of Europe (Stradling, 2001), Robert Stradling confesses at the beginning of the chapter ‘Evaluating History Textbooks’ that, ‘It is not written with the intention of seeking to offer a definitive answer to the question ‘What is a good history textbook ?’’. Stradling recognizes that what counts as being a good textbook in one place by a certain group of people is likely to be perceived differently in another place by other people and that ‘a definitive answer usually leads to little more than broad and rather platitudinous generalizations’. Indeed, the idea of defining a set of core principles that every history textbook should include is, as Stradling argues, unlikely to be satisfactory for all situations, offering no more than ‘a stimulus for further discussion’.

Nevertheless, Stradling proceeds to set out a series of categories and questions for evaluating history textbooks that, I would suggest, imply a
provisional' ideal (p. 257). Stradling’s book is a Pan-European guide for history teachers and, therefore, not aimed specifically at textbook researchers. However, by providing an analytical tool for teachers, a framework for evaluating textbooks, Stradling acknowledges that teachers are as much textbook researchers as scholars. For this reason Stradling’s categories and questions are of interest to all involved in the research, analysis, critique and evaluation of textbooks. As part of his analytical framework Stradling constructs four main categories across which there are forty probing questions. Within each category Stradling offers questions that will guide the evaluation of the researcher. Category one, dealing with the evaluation of textbook content, includes questions on coverage, sequencing and the curriculum, space allocation, the incorporation of multiple-perspectives, cultural and regional identity, and omissions. Category two, identifying the textbook’s pedagogical value, includes questions on students’ prior skills and knowledge, on whether the textbook encourages memorizations or skills development, on the use of charts and pictures, on the explication of historical concepts in the text, and on the facilitation of comparative thinking. The third category, identifying intrinsic qualities in history textbooks, includes questions on assessing textbook pitch, on whether a text relies on reductionism, and on the possibilities for identifying author bias in texts.

The last category deals with extrinsic factors that may impact on the textbook. Questions to ascertain when the book first appeared on the market, the price and robustness of the textbook, whether the book is aimed at a specific group of students, and the extent to which the textbook will need to be complimented with alternative resources, are included in this category (pp. 258-263). Stradling provides an example of guidelines criteria based on categories and questions – for analyzing history textbooks. Perhaps Stradling’s categories could be redefined and the questions appropriately re-clustered.
In addition, questions would need to be fine tuned according to the specific focus of a given project. This may require the formulation of additional categories. William Fetsko, for example, suggests a set of generic categories different to Stradling's including 'Readability', 'Format' and 'Quality of the Text' but his questions are more or less the same (Fetsko, 1992, pp. 132-133). Likewise, Crismore argues for the inclusion of categories that evaluate "the rhetorical form of textbooks" beyond merely the analysis of what information is included and omitted, in order to measure 'the way the content is presented' (Crismore, 1989, p. 133). Like Stradling, however, both Fetsko and Crismore refer to analytical criteria to be used by teachers and / or textbook selection committees. They are not writing for the benefit of the academic textbook researcher and their ideas must be adapted accordingly.

Nevertheless, Stradling's categories and questions for evaluating textbooks represent an important and much needed example: a criterion from which to work from, a reference point from which to locate oneself, a beginning open to further discussion, just as Stradling intended. There is another side to 'making categories' and 'asking questions', however, that throws light on the important connection between methodology and the epistemological and indeed socio-political orientation of the researcher. To begin with, the process of asking particular types of questions can be and often is evaluative involving the assessment of what is 'good' or 'better' and what is not. From Stradling's questions this is clearly implied in the sense that he favours textbooks that, among other things, offer multiple perspectives, social and cultural history as much as political history, and offer information consistent with the latest research findings. Textbooks including these elements are therefore, by implication, better than those that offer nationalistic, monocausal interpretations of history focusing on the military/political pursuits of famous men. Whether he likes it or not Stradling's criteria are thus based on a 'provisional' ideal of what
constitutes good knowledge and what makes a good textbook and what does not.

In addition, the criteria tell us much about Stradling’s socio-political orientation with regard to the function of history education in democratic societies: views should be expressed in all their plurality while actively interpreted by a critically engaged student populace. Thus, Stradling’s methodology, like all methodologies, is intimately connected to an epistemology – a theory of knowledge – that, in turn, expresses an implicit sociopolitical orientation. In the senses described above, Stradling offers more to the prospective researcher than Pingel. Unlike Pingel, however, Stradling does not give details on the many other practical and methodological aspects involved in textbook research. He does not discuss sampling or parity for instance. This being said, Stradling is, after all, writing for teachers involved in selecting textbooks as and when the school budget allows. Yet the concerns of Stradling and the teachers on behalf of whom he is writing are not so dissimilar to those of the academic textbook researcher. I would suggest combining aspects of both Pingel and Stradling’s work, UNESCO and the Council of Europe, for a more complete framework.

3.8 Other Contributions

Since the collapse of the Soviet Union, many Eastern European states have been involved in an intense effort to re-write their textbooks, particularly in the fields of history, geography and civics. However, while textbook research in Eastern Europe is a flourishing field, few works are published focusing specifically on methods. **Textbook: Research and Writing** by Estonian Jaan Mikk (2000) is an exception. Although not an easy read and in places poorly translated, the author devotes over 400 pages to ‘methods of textbook evaluation and...recommendations for writing...textbooks’ (p. 9). On the whole, Mikk emphasizes the importance of quantitative techniques for the
analysis of textual structures (pp. 77–103) stressing ultimately that ‘methods must be reliable and valid’ (p. 78). This gives the book a positivist / empiricist flavour not necessarily conducive to researchers of, say, ideology in history textbooks. Moreover, much of the book is devoted to textbook writing. However, in his discussion of methods for ‘the analysis of....value forming’ textbook content Mikk outlines some qualitative approaches (p. 101). Like Pingel and Straddling Mikk describes the need to formulate topics and subtopics, a framework of categories, to guide content analyses.

This being said, Mikk goes a step further when he proceeds to explain how ‘there are two possibilities for developing a list of [guiding] topics’ (p. 103). The first possibility is rational and conceptual, involving the formulation of a set of topics prior to textbook analysis. The second possibility is empirical and practical, involving the provisional analysis of a sample of textbooks upon which to formulate a set of topics. Importantly, Mikk reminds us of the intimate relationship between methodology and epistemology. In other words, do we construct an analytical instrument based on an idea of what is to be analyzed or on our experience of what is to be analyzed? The answer, I would suggest, has something to do with both. Peter Weinbrenner’s essay, ‘Methodologies of Textbook Analysis used to date’ (2990) is useful because he describes with such clarity what is lacking in textbook research. Weinbrenner is indeed quick to point out that textbook ‘research is incomplete’ and that there remain many gaps in the field that need to be filled (p. 21).

To begin with, he argues, textbook research has not been sufficiently theorized. There is no ‘theory of the schoolbook’ upon which to construct solid methodologies. Secondly, there are ‘empirical limitations’. In other words, we continue to know very little about the effects of using school textbooks.

Finally, writes Weinbrenner, ‘we do not yet have a set of reliable methods and instruments for the measurement and assessment of investigations in the field of schoolbook research’ (p. 22). In order to fill these gaps Weinbrenner
suggests a series of dimensions and categories in school textbook research where future developments, often involving new understandings of the meaning of textbook research, might take place. Beyond these offerings, American scholars have made important contributions to textbook research.

Since the 1970s, Michael Apple’s highly influential work has, to some extent, dominated the agenda. In books such as *Teachers and Texts* (1986) and *Official Knowledge* (1993) Apple develops a highly critical analysis of the hegemonic processes that characterize the production and consumption of textbooks both inside and outside of the United States.

Unfortunately, where Apple has devoted himself to producing a rich theoretical perspective, he rarely gives explicit and detailed accounts concerning methodology, either generic or specific to his own work.

Apple has written extensively on the theme of school textbooks but one can never be sure of exactly which ones since he almost never defines his sample more specifically than all the textbooks in capitalist America. This is not always the case with Apple’s colleagues. In *The Politics of the Textbook*, co-edited by Apple (Apple & Christian-Smith, 1991), Christine Sleeter and Carl Grant give a precise account of methods used in their critical study of representations of diversity in US school textbooks. However, their submission is the only one to cover methods in the entire volume (Sleeter & Grant, pp. 78 – 110).

In the US, Apple is not alone in neglecting the discussion of methodological approaches in textbook research. Across the board, in key works by leaders in the field, methodological procedures and processes receive little attention and rarely anything close to an explicit and detailed description. In *Language, Authority and Criticism*, edited by De Castell et al only one of the essays, ‘Rhetorical Form, Selection and the Use of Textbooks’ by Avon Crismore, approaches the issue of analysing/evaluating textbooks using criteria based on the formulation of categories and questions (1989). Likewise, in The
Textbook Controversy – Issues, Aspects, Perspectives, edited by John Herlihy, only one of the submissions focuses on the methodological processes involved in textbook evaluation and selection.

The article by William Fetsko, 'Approaching Textbook Selection Systematically', is only 6 pages long (Fetsko, 1992, pp. 129-136). It doesn’t take expert frequency and space analysis to realise that published discussions of generic methods in textbook research are under-represented. Textbook comparison can even become a student activity rather than an exclusively academic undertaking.

To stimulate classroom discussion, the 1988 UNESCO conference in Braunschweig recommended that authors should ‘include in history textbooks on a given subject points of view expressed by other textbooks’. Such an exercise enables students to step into the shoes of others. Students can also perform some basic linguistic evaluation and discover whether their own images of other people are biased or not. Philip J. BRODY in his book named “Research on Pictures in Instructional Texts” described his thought on Classroom exercises on textbooks:

1. Ask the students to write down a few words describing attitudes, behavior and other characteristics of boys/men compared to those of girls/women (or other groups).

2. Let the students consult their textbooks: how do they characterize the same groups (identify words and terms used, attitudes ascribed to them, context in which they are presented: work, leisure time, family surroundings). Ask them to list, for each group or country separately, the words used and to consider whether these have negative or positive connotations.

3. Open discussion about images, bias and stereotypes about one’s own group and other people. Focus should be on ‘hidden messages’: portraying others implies telling something about how you perceive yourself.

84
4. Introduce new information about the groups dealt with. Does this change the image as described before?

5. Possible conclusion: to overcome prejudice about others it seems to be essential to revise one’s self-conception at the same time.

He also expressed his thought upon — **Towards variety in designing schoolbooks:**

In the past, textbooks concentrated on the narrative. But the design of schoolbooks has changed considerably. Many of them are now full of pictures, maps, caricatures, photos and drawings.

Our children are used to being exposed to television, videos and computers; illustrations attract their attention more than a written text. Pictures are like catchwords; they can serve as keys that give the memory access to a chapter. The function of illustrations is therefore an important topic: Do they add new perspectives? Do they change the angle of approach? Do they complement the text? Often illustrations affect the observers’ emotions and stimulate them to express their feelings, a response that might not result from mere reading. Pictures can aid free expression, although probably in a less controlled way, especially when sensitive issues are raised and emotions are involved.

Hence, illustrations are more likely to foster deeply rooted prejudices; they help to create images in the minds of the students, which are more persistent than the written text. For example, if a text advocates women’s rights and equality of the sexes but the illustrations display men only, the text will probably have no effect.

The same applies to minority groups, who are often neglected in illustrations or depicted in a less favorable light. This means that text analysis should be complemented by an examination of illustrations.
The researcher decided to select questionnaire for the analysis. Researcher made a questionnaire for textbook analysis.

**Design of the Study:**

The appropriate design of the study might be stated as:

Firstly, the investigator prepared a questionnaire for textbook analysis. Secondly, the investigator analyzed each of the Accountancy textbook as per above stated questionnaire. Thirdly, the researcher tabulated the obtained data as per schedule of the questionnaire. Fourthly, the investigator makes a comparative study of all those data to select the best book in accountancy of class XII and ranked them.

Finally, the researcher tries to suggest some criteria to make a good quality textbook through a questionnaire with the following categories:

**Book Analysis (Sample No. 2)**

[A–Highly Agreed, B–Agreed, C–Indifferent, D–Disagreed, E–Highly Disagreed]

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<td>A. CURRICULUM LOAD:</td>
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<td>Content Analysis</td>
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<td>2. Content is concept based</td>
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<td>3. Language is comprehensible</td>
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<td>4. Content is heavily loaded</td>
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<td>5. Contents are correlated</td>
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<td>6. Active learning appealing to a wide range of abilities and interests.</td>
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<td>7. Contents encourage critical thinking</td>
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8. This textbook could be used for several years
9. Content is presented deductively
10. Scope of Sufficient development of new concept
11. Real-life applications are given
12. Non text content (maps, graphs, pictures) are accurate and well integrated into the text

B. DIFFICULTY LEVEL:

13. New terms, formulas are not conceptually explained properly
14. Generally difficult for most of the students
15. New terms (in share/company) are highlighted properly (i.e. bold or underlined)
16. Curriculum is difficult enough for organizing in a classroom situation.

C. ORGANIZATIONAL FACTORS:

17. Institution provides supportive environment to the students.
18. Does the content of a text book show a logical arrangement and development of subject?
19. The textbook is uniform in Appearance and content layout throughout the book as well as within each chapter?
20. Size and format of print is appropriate.
21. Library and laboratory are well equipped.
22. It contains references, bibliographies, and other resources Are they helpful and sufficient?
23. The chapters provide proper introductions and summaries those are clear and comprehensive
24. Activities apply to a diversity of student abilities, interests and learning styles

25. Organization of content material is not well organized.

D. TRANSACTIONAL EFFICACY

26. Good command over the subject

27. Most of the teachers are very much interactive in classroom situation.

28. Teacher is helpful, comprehensive, organized and easy to understand.

29. Most of the content is theoretically presented without having any relation with the reality.

30. Attitude of the teachers are negative.

31. Feedback mechanism is almost absent in transactional phase.

[A–Highly Agreed, B–Agreed, C–Indifferent, D–Disagreed, E–Highly Disagreed]

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<td>A. CURRICULUM LOAD: Content Analysis</td>
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<tr>
<td>1. Content is structured and objective based.</td>
<td>70%</td>
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<td>2. Content is concept based</td>
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<td>3. Language is comprehensible</td>
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<td>50%</td>
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<tr>
<td>4. Content is heavily loaded</td>
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<td>5. Contents are correlated</td>
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<td>6.</td>
<td>Active learning appealing to a wide range of abilities and interests.</td>
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<td>7.</td>
<td>Contents encourage critical thinking</td>
<td>40%</td>
<td>60%</td>
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<td>8.</td>
<td>This textbook could be used for several years</td>
<td>50%</td>
<td>50%</td>
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<td>9.</td>
<td>Content is presented deductively</td>
<td>80%</td>
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<td>10.</td>
<td>Scope of Sufficient development of new concept</td>
<td>30%</td>
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<td>11.</td>
<td>Real-life applications are given</td>
<td>60%</td>
<td>40%</td>
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<td>12.</td>
<td>Non text content (maps, graphs, pictures) are accurate and well integrated into the text</td>
<td>70%</td>
<td>20%</td>
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<td>B. DIFFICULTY LEVEL:</td>
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<tr>
<td>13.</td>
<td>New terms, formulas are not conceptually explained properly</td>
<td>60%</td>
<td>20%</td>
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<td>14.</td>
<td>Generally difficult for most of the students</td>
<td>80%</td>
<td>10%</td>
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<td>15.</td>
<td>New terms (in share / company) are highlighted properly (i.e. bold or underlined)</td>
<td>80%</td>
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<td>16.</td>
<td>Curriculum is difficult enough for organizing in a classroom situation.</td>
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<td>20%</td>
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<td>C. ORGANIZATIONAL FACTORS:</td>
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<tr>
<td>17.</td>
<td>Institution provides supportive environment to the students.</td>
<td>90%</td>
<td>10%</td>
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<tr>
<td>18.</td>
<td>Does the content of a text book show a logical arrangement and development of subject?</td>
<td>60%</td>
<td>20%</td>
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<tr>
<td>19.</td>
<td>The textbook is uniform in appearance and content layout throughout the book as well as within each chapter?</td>
<td>70%</td>
<td>30%</td>
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<tr>
<td>20.</td>
<td>Size and format of print is appropriate.</td>
<td>100%</td>
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<td>21.</td>
<td>Library and laboratory are well equipped.</td>
<td>70%</td>
<td>20%</td>
<td>5%</td>
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<tr>
<td>22.</td>
<td>It contains references, bibliographies, and other resources Are they helpful and sufficient?</td>
<td>70%</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
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<td>23.</td>
<td>The chapters provide proper introductions and summaries those are clear and comprehensive</td>
<td>60%</td>
<td>20%</td>
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<td>24.</td>
<td>Activities apply to a diversity of student abilities, interests and learning styles</td>
<td></td>
<td>40%</td>
<td>60%</td>
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<tr>
<td>25.</td>
<td>Organization of content material is not well organized.</td>
<td>40%</td>
<td>20%</td>
<td>36%</td>
<td>2%</td>
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<td></td>
<td><strong>D. TRANSACTIONAL EFFICACY</strong></td>
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<td>26.</td>
<td>Good command over the subject</td>
<td>30%</td>
<td>20%</td>
<td>25%</td>
<td>15%</td>
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<tr>
<td>27.</td>
<td>Most of the teachers are very much interactive in classroom situation.</td>
<td>70%</td>
<td>20%</td>
<td>10%</td>
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<tr>
<td>28.</td>
<td>Teacher is helpful, comprehensive, organized and easy to understand.</td>
<td>70%</td>
<td>30%</td>
<td></td>
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<tr>
<td>29.</td>
<td>Most of the content is theoretically presented without having any relation with the reality.</td>
<td>80%</td>
<td>20%</td>
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<td>30.</td>
<td>Attitude of the teachers are negative.</td>
<td>60%</td>
<td>20%</td>
<td>10%</td>
<td>10%</td>
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<tr>
<td>31.</td>
<td>Feedback mechanism is almost absent in transactional phase.</td>
<td>70%</td>
<td>20%</td>
<td>10%</td>
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</tbody>
</table>
4.14 Graphical Analysis – Through Survey Method:

Item No. 1: “The content of the curriculum of class XI in West Bengal Council of Higher Secondary Education is overloaded” (Graph No. 1).

From the graph, it is clear that 41.18% and 19.67% of the students rural and urban respectively showing total agreement towards the item. 38.24% and 52.46% students rural and urban respectively showing partially agreed. 29.4% and 3.28% students rural and urban respectively showing neutral.

5.88% and 4.92% students rural and urban respectively showing partially disagreed.

11.76% and 19.67% students rural and urban respectively showing totally disagreed.

So, it indicates that the statement is true.
Item No. 2: “The knowledge of curriculum of class XI help the students to grow positive attitude towards education” (Graph No. 2).

From the graph, it is clear that 11.76% and 21.31% of the students rural and urban respectively showing total agreeeness towards the item. 47.06% and 34.43% students rural and urban respectively showing partially agreed. 11.76% and 8.20% students rural and urban respectively are showing neutral.

11.76% and 11.48% students rural and urban respectively showing partially disagreed.

17.65% and 24.59% students rural and urban respectively showing totally disagreed.

So, it indicates that the statement is true.
Item No. 3: “The presentation of content of the curriculum of class XI in West Bengal Council of Higher Secondary Education can able to create interest among the students” (Graph No. 3).

From the graph, it is clear that 32.35% and 18.03% of the students rural and urban respectively showing total agreeeness towards the item. 41.18% and 47.54% students rural and urban respectively showing partially agreed. 5.88% and 11.48% students rural and urban respectively showing neutral.

5.88% and 13.11% students rural and urban respectively showing partially disagreed.

14.71% and 9.84% students rural and urban respectively showing totally disagreed.

So, it indicates that the statement is true.
Item No. 4: "Curriculum of class XI is appropriate for entering higher study" (Graph No. 4).

From the graph, it is clear that 38.24% and 26.23% of the students rural and urban respectively showing total agreement towards the item. 23.53% and 22.95% students rural and urban respectively showing partially agreed. 5.88% and 1.64% students rural and urban respectively showing neutral.

8.82% and 21.31% students rural and urban respectively showing partially disagreed.

23.53% and 27.87% students rural and urban respectively showing totally disagreed.

So, it indicates that the statement is true.
Item No. 5: “Curriculum of class XI is not structured properly” (Graph No. 5).

From the graph, it is clear that 23.53% and 11.48% of the students rural and urban respectively showing total agreeeness towards the item. 14.71% and 18.03% students rural and urban respectively showing partially agreed. 17.65% and 11.48% students rural and urban respectively showing neutral.

14.71% and 16.39% students rural and urban respectively showing partially disagreed.

29.41% and 42.62% students rural and urban respectively showing totally disagreed.

So, it indicates that the statement is not true. Hence the curriculum needs some modifications.
Item No. 6: “Curriculum of class XI is quite helpful to the students for different competitive examinations” (Graph No. 6).

From the graph, it is clear that 11.76% and 18.03% of the students rural and urban respectively showing total agreeness towards the item. 29.41% and 21.31% students rural and urban respectively showing partially agreed. 8.82% and 8.20% students rural and urban respectively showing neutral.

11.76% and 18.03% students rural and urban respectively showing partially disagreed.

38.24% and 34.43% students rural and urban respectively showing totally disagreed.

So, it indicates that the statement is not true. Hence the curriculum needs some modifications.
Item No. 7: “Curriculum of class XI helps to develop vocational ability among the students who are not taking higher education” (Graph No. 7).

From the graph, it is clear that 5.88% and 8.20% of the students rural and urban respectively showing total agreeness towards the item. 8.82% and 16.39% students rural and urban respectively showing partially agreed. 14.71% and 11.48% students rural and urban respectively showing neutral.

11.76% and 14.75% students rural and urban respectively showing partially disagreed.

58.82% and 49.18% students rural and urban respectively showing totally disagreed.

So, it indicates that the statement is not true. Hence the curriculum needs some modifications.
Item No. 8: “The curriculum of class XI in West Bengal Council of Higher Secondary Education is similar to those of C. B. S. E and I. C. S. E. Boards” (Graph No. 8).

From the graph, it is clear that 8.82% and 4.92% of the students rural and urban respectively showing total agreeeness towards the item. 32.35% and 16.39% students rural and urban respectively showing partially agreed. 23.53% and 22.95% students rural and urban respectively showing neutral.

14.71% and 27.87% students rural and urban respectively showing partially disagreed.

20.59% and 27.87% students rural and urban respectively showing totally disagreed.

So, it indicates that the statement is not true. Hence the curriculum needs some modifications.
Item No. 9: "The curriculum of class XI is difficult enough for fulfilling the objectives of curriculum" (Graph No. 9).

From the graph, it is clear that 2.94% and 3.28% of the students rural and urban respectively showing total agreeness towards the item. 11.76% and 9.84% students rural and urban respectively showing partially agreed. 26.47% and 16.39% students rural and urban respectively showing neutral.

14.71% and 13.11% students rural and urban respectively showing partially disagreed.

44.12% and 57.38% students rural and urban respectively showing totally disagreed.

So, it indicates that the statement is not true. Hence the curriculum needs some modifications.
**Item No. 10**: “The transaction of curriculum of class XI helps student to use the knowledge for their up gradation in different schools of West Bengal” (Graph No. 10).

From the graph, it is clear that 2.94% and 0.00% of the students rural and urban respectively showing total agreement towards the item. 14.71% and 8.20% students rural and urban respectively showing partially agreed. 29.41% and 19.67% students rural and urban respectively showing neutral.

14.71% and 9.84% students rural and urban respectively showing partially disagreed.

38.24% and 62.30% students rural and urban respectively showing totally disagreed.

So, it indicates that the statement is not true. Hence the curriculum needs some modifications.
**Item No. 11**: “The curriculum of class XI brings fatigue among the students”  
(Graph No. 11).

From the graph, it is clear that 17.65% and 14.75% of the students rural and urban respectively showing total agreeeness towards the item. 41.18% and 27.87% students rural and urban respectively showing partially agreed. 11.76% and 9.84% students rural and urban respectively showing neutral.

11.76% and 14.75% students rural and urban respectively showing partially disagreed.

17.65% and 32.79% students rural and urban respectively showing totally disagreed.

So, it indicates that the statement is true.
Item No. 12: "The curriculum of class XI develops creativity among the students". (Graph No. 12).

From the graph, it is clear that 17.65% and 18.03% of the students rural and urban respectively showing total agreement towards the item. 26.47% and 34.43% students rural and urban respectively showing partially agreed. 11.76% and 14.75% students rural and urban respectively showing neutral.

11.76% and 14.75% students rural and urban respectively showing partially disagreed.

32.35% and 18.03% students rural and urban respectively showing totally disagreed.

So, it indicates that the statement is true.
Item No. 13: “The curriculum of class XI initiated problem solving ability among the students” (Graph No. 13).

From the graph, it is clear that 23.53% and 18.03% of the students rural and urban respectively showing total agreement towards the item. 38.24% and 22.95% students rural and urban respectively showing partially agreed. 8.82% and 9.84% students rural and urban respectively showing neutral.

8.82% and 19.67% students rural and urban respectively showing partially disagreed.

20.59% and 29.59% students rural and urban respectively showing totally disagreed.

So, it indicates that the statement is true.
Item No. 14: "The curriculum of class XI develops thinking ability and imagination power among the students" (Graph No. 14).

From the graph, it is clear that 29.41% and 13.11% of the students rural and urban respectively showing total agreeness towards the item. 35.29% and 32.79% students rural and urban respectively showing partially agreed. 11.76% and 11.48% students rural and urban respectively showing neutral.

2.94% and 19.67% students rural and urban respectively showing partially disagreed.

20.59% and 22.95% students rural and urban respectively showing totally disagreed.

So, it indicates that the statement is true.
Item No. 15: "The curriculum of class XI just enough for high intelligent and low intelligent students" (Graph No. 15).

From the graph, it is clear that 8.82% and 18.03% of the students rural and urban respectively showing total agreement towards the item. 55.88% and 22.95% students rural and urban respectively showing partially agreed. 11.76% and 18.03% students rural and urban respectively showing neutral.

5.88% and 18.03% students rural and urban respectively showing partially disagreed.

17.65% and 22.95% students rural and urban respectively showing totally disagreed.

So, it indicates that the statement is true.
Item No. 16: “The transaction of curriculum of class XI is not effective for the students achievement” (Graph No. 16).

From the graph, it is clear that 26.47% and 26.23% of the students rural and urban respectively showing total agreeness towards the item. 44.12% and 18.03% students rural and urban respectively showing partially agreed. 8.82% and 18.03% students rural and urban respectively showing neutral.

11.76% and 14.75% students rural and urban respectively showing partially disagreed.

8.82% and 22.95% students rural and urban respectively showing totally disagreed.

So, it indicates that the statement is true.
Item No. 17: "The curriculum of class XI in present condition is too lengthy to be completed in time by the teachers" (Graph No. 17).

From the graph, it is clear that 14.71% and 8.20% of the students rural and urban respectively showing total agreeeness towards the item. 47.06% and 27.87% students rural and urban respectively showing partially agreed. 11.76% and 8.20% students rural and urban respectively showing neutral. 5.88% and 21.33% students rural and urban respectively showing partially disagreed.

20.59% and 34.43% students rural and urban respectively showing totally disagreed.

So, it indicates that the statement is true.
Item No. 18: “The language used in the text book is incomprehensible”

(Graph No. 18).

From the graph, it is clear that 17.65% and 4.92% of the students rural and urban respectively showing total agreeeness towards the item. 23.53% and 18.03% students rural and urban respectively showing partially agreed. 5.88% and 11.48% students rural and urban respectively showing neutral.

14.71% and 22.95% students rural and urban respectively showing partially disagreed.

38.24% and 42.62% students rural and urban respectively showing totally disagreed.

So, it indicates that the statement is not true. Hence the curriculum needs some modifications.
**Item No. 19**: “The curriculum to evaluate the students of class XI is just enough to measure their knowledge, understanding, ability and applicability” (Graph No. 19).

![Graph](image)

From the graph, it is clear that 29.41% and 9.84% of the students rural and urban respectively showing total agreeeness towards the item. 32.35% and 32.79% students rural and urban respectively showing partially agreed. 14.71% and 11.48% students rural and urban respectively showing neutral.

11.76% and 16.39% students rural and urban respectively showing partially disagreed.

11.76% and 29.51% students rural and urban respectively showing totally disagreed.

So, it indicates that the statement is true.
**Item No. 20:** “The curriculum of class XI in West Bengal is matched with the age and mental stage of the students of this stage” (Graph No. 20).

From the graph, it is clear that 20.59% and 3.28% of the students rural and urban respectively showing total agreeeness towards the item. 23.53% and 19.67% students rural and urban respectively showing partially agreed. 23.53% and 27.87% students rural and urban respectively showing neutral.

17.65% and 18.03% students rural and urban respectively showing partially disagreed.

14.71% and 31.15% students rural and urban respectively showing totally disagreed.

So, it indicates that the statement is not true. Hence the curriculum needs some modifications.
**Item No. 21**: "In transaction of the curriculum of class XI pedagogical equipments are used properly" (Graph No. 21).

From the graph, it is clear that 23.53% and 11.48% of the students rural and urban respectively showing total agreeness towards the item. 17.65% and 34.43% students rural and urban respectively showing partially agreed. 17.65% and 16.39% students rural and urban respectively showing neutral.

20.59% and 6.56% students rural and urban respectively showing partially disagreed.

20.59% and 31.15% students rural and urban respectively showing totally disagreed.

So, it indicates that the statement is true.
Item No. 22: "The examination system presently at of class XI curriculum may create curriculum load among students" (Graph No. 22).

From the graph, it is clear that 23.53% and 9.84% of the students rural and urban respectively showing total agreeness towards the item. 29.41% and 42.62% students rural and urban respectively showing partially agreed. 20.59% and 11.48% students rural and urban respectively showing neutral.

17.65% and 19.67% students rural and urban respectively showing partially disagreed.

8.82% and 16.39% students rural and urban respectively showing totally disagreed.

So, it indicates that the statement is true.
Item No. 23: "An overwhelming majority of schools do not have minimum essential facilities for teaching and learning" (Graph No. 23).

From the graph, it is clear that 35.29% and 11.48% of the students rural and urban respectively showing total agreeeness towards the item. 23.53% and 27.87% students rural and urban respectively showing partially agreed. 14.71% and 16.39% students rural and urban respectively showing neutral.
Causes for Curriculum Load:

1) The examination system presently of class XI curriculum may create curriculum load among students (Graph No. 22).

2) The curriculum of class XI in West Bengal is somewhat mismatched with the age and mental stage of the students causes anxiety.

3) The language used in the text book is incomprehensible causing curriculum load.

4) The curriculum of class XI in present condition is too lengthy to be completed in time by the teachers (Graph No. 17).

5) The transaction of curriculum of class XI is not effective for the student’s achievement where transaction of curriculum itself may create load (Graph No. 16).

6) The curriculum of class XI is not just enough for high intelligent and low intelligent students leading to lacking of integration (Graph No. 15).

7) The curriculum of class XI brings fatigue among the students due to excessive expectations among students and teachers (Graph No. 11).

8) The curriculum of class XI is difficult enough for fulfilling the objectives of curriculum (Graph No. 9).

9) Curriculum of class XI helps to develop vocational ability among the students who are not taking higher education (Graph No. 7).

10) Curriculum of class XI is quite helpful to the students for different competitive examinations (Graph No. 6).

11) Curriculum of class XI of education is not structured properly (Graph No. 5).

12) Curriculum of class XI is appropriate for entering higher study (Graph No. 4).

13) The presentation of content of the curriculum of class XI in West Bengal Council of Higher Secondary Education can able to create interest among the students (Graph No. 3).
14) The knowledge of curriculum in class XI helps the students to grow positive attitude towards education (Graph No. 2).

15) The content of the curriculum in class XI of West Bengal Council of Higher Secondary Education is overloaded (Graph No. 1).

Some Realistic Findings in Curriculum Transaction:

1) An overwhelming majority of schools do not have minimum essential facilities for teaching and learning (Graph No. 23).

2) In transaction of the curriculum of class XI pedagogical equipments are used properly (Graph No. 21).

3) The curriculum to evaluate the students of class XI is just enough to measure their knowledge, understanding, ability and applicability (Graph No. 19).

4) The curriculum of class XI develops thinking ability and imagination power among the students (Graph No. 14).

5) The curriculum of class XI initiated problem solving ability among the students (Graph No. 13).

6) The curriculum of class XI develops creativity among the students (Graph No. 12).

7) The transaction of curriculum of class XI helps student to use the knowledge for their up gradation in different schools of West Bengal (Graph No. 8).

8) The curriculum in West Bengal Council of Higher Secondary Education is similar to those of C. B. S. E and I. C. S. E. Boards (Graph No. 8).

On the basis of the score of curriculum load and transaction following dimensions can be determined and further it has been analysed by preparing a standardised questionnaire through survey method in the next methodological chapter.
Twelve dimensions were selected by the present researcher for the determination of the load and transaction curriculum of class XI in West Bengal. These twelve dimensions are:

- Difficulty level.
- Joyless learning.
- Psychological anxiety.
- Lack of integrated curriculum.
- Lack of proper exposure.
- Attitude of the students.
- Excessive expectations of the parents.
- Irrelevance.
- Assessment process.
- Mode of transaction.
- Nature of text book.
- Incomprehensibility.