

## **Critical Thinking Skills in a Secondary School Pakistan Studies Textbook: A**

### **Qualitative Content Analysis**

\* Hamna Naseer

\*\* Yaar Muhammad (Corresponding Author)

\*\*\* Sajid Masood

#### ***Abstract***

The purpose of this study was to examine the critical thinking skills incorporated in text-based questions and tasks in the Pakistan Studies textbooks of secondary level. The Pakistan Studies textbook produced by the Punjab Textbook Board for ninth was analyzed using qualitative content analysis based on cognitive domains derived from six levels of revised Bloom's taxonomy. Moreover, the text-based questions were then analyzed by categorizing them under the nine pre-determined analytic categories of Socratic taxonomy. These categories depicted the questions that challenge the critical thinking skills of learners. The findings revealed that the text-based question incorporated in the selected textbook of Pakistan Studies was not conducive to developing critical thinking skills among students. Except for one question, none of the questions fell under higher-order thinking levels of revised Bloom's taxonomy. Furthermore, based on analytic categories, text-based questions showed a little inclination towards the questions of clarification, whereas none represented other categories. Therefore, textbook developers need to focus on the induction of critical thinking skills in the text-based questions and tasks of textbooks.

**Keywords:** Pakistan Studies, Critical Thinking, Secondary School, Qualitative Content Analysis, Textbook Analysis

#### **Introduction**

To keep pace with the world, the production of young Pakistanis having qualities and skills of the 21st century, like creativity, critical thinking, problem-solving, innovation, confidence, and enthusiasm is required (Mahmood, Iqbal, & Saeed, 2009). For this, educational institutions are the main sources to develop higher-order thinking skills through the curriculum to build a rational and logical individual out of the learners. It means that critical thinking is not static, rather dynamic, which can be enhanced through practicing different questions and giving reasons irrespective of the students' IQ (Fisher, 2005).

To fulfill the purpose of producing certain qualities, skills, and attributes in young Pakistanis, educational goals must clearly define them while pedagogical practices must be aligned to those stated goals, rather it is an ongoing, well-defined process. As mentioned in the curriculum reforms section of National Education Policy, "curriculum shall closely reflect important social issues; provide more room for developing the capacity for self-directed learning, the spirit of inquiry, critical thinking, problem-solving and team-work" (Education, 2009, p. 45). Thus, it is an educational goal of the Pakistani education system to produce "critical thinkers."

It is a curriculum that defines the intended learning outcomes while instructions suggest the methods and strategies to achieve them. The alignment of national policies with curriculum goals and then instructional objectives is essential. Nonetheless, the implementation gap cannot be neglected in the Pakistani context due to certain problems like lack of resources, low professional quality of teachers, or lack of awareness (Mahmood, 2017). Therefore, research demonstrates that curriculum applied in schools, may define the goals of developing critical thinking skills, but teachers may fail to achieve that learning outcome as students is unable to possess higher-order thinking skills (Dean, 2005) and educators find it challenging (Cassum, McGrath, Gul, Dilshad, & Syeda, 2013). Besides,

\* University of Management and Technology, Lahore Email: [hamnanaseer30@gmail.com](mailto:hamnanaseer30@gmail.com)

\*\* University of Management and Technology, Lahore Email: [edyaar2008@yahoo.com](mailto:edyaar2008@yahoo.com)

\*\*\* University of Management and Technology, Lahore Email: [sajid@umt.edu.pk](mailto:sajid@umt.edu.pk)

textbooks are the most significant part of the curriculum; therefore, student's critical thinking skills must be encouraged and enhanced through such content in textbooks that prompts one's critical thinking skills (Irafahmi, Nuris, Zahroh, & Nagari, 2018).

As quality curriculum leads to quality education, a quality textbook, along with quality instructors, must provide society with plenty of quality learners having a constructive approach. However, textbooks provide a set of instructions to teachers having less or no experience. Therefore, textbook evaluation is required for the continuous improvement of an essential part of education as Hawkes (1996) suggested that evaluation can lead to goal improvement, documentation, program refinement, and determination of effects.

Lack of research-based materials can be observed in the Pakistani educational context, which suggests the need of the hour to fulfill the implementation gap found within policies and practices. Thus, if it is mentioned to develop students' critical thinking skills as curriculum objective or learning outcome, instructions, and textbook content must be focused. Mahmood (2017) states: "If students lack in critical thinking skills, the simplest way to implant such skills is infusing them in the course content and drill" (p.5).

As it is clear that in the 21<sup>st</sup> century, the incorporation of critical thinking skills in the curriculum is considered as an educational goal, not only in the Pakistani context but also in multiple developed or underdeveloped countries, Thus, teachers need to learn how to raise critical thinkers, and schools need to provide such a creative system, and textbooks shall reflect such content that enhances students' critical thinking skills.

Moreover, research indicates that in the Pakistani context, very few research studies have been done regarding the development of critical thinking skills in students. The inclination of research is mostly towards instructional practices and teachers' effectiveness to incorporate such skills. A few touched the area of textbooks, and those who did so, no study explicitly evaluated the reflection of critical thinking skills in textbooks produced by the Punjab Textbook Board.

This study critically reviews a Pakistan Studies textbook by analyzing the text-based questions so that the reflection of critical thinking skills could be evaluated in them. Such a phenomenon has not been studied yet in the Pakistani context but demands much attention to examine the existing content and explain whether content depicts enough or needs to be improved in the future regarding the development of critical thinking skills. This information could be useful for curriculum developers and textbook writers. This study is designed to explore this phenomenon and fill the gap in the literature.

### **Related Research Studies Examining Critical Thinking Skills in Curriculum/Textbooks in Pakistan**

Literature provides recent studies regarding critical thinking skills and their relation with learners, curriculum, or pedagogy. Acknowledging the need to develop skills like critical thinking, the researchers understood well decision making or problem-solving in the 21<sup>st</sup> century, even belonging to underdeveloped countries like Pakistan. Though few, but in-depth studies could be found in the Pakistani context regarding the development of critical thinking skills, however, this area needs much more consideration.

As discussed above, textbooks tend to reflect certain ideas and concepts to be developed in students, thus along with appropriate pedagogical strategies, the content of textbooks is of worth importance to foster various skills among students. Literature provides few qualitative studies regarding the analysis of textbooks in Pakistani contexts like Hina, Ajmal, Rahman, and Jumani (2011) analyzed Social Studies textbooks at secondary level but concerning citizenship education, not the critical thinking skills. Similarly, S. A. Awan, Parveen, and Abdullah (2018) tend to focus on the extent to which the curriculum reflects critical thinking questions for citizenship education by analyzing textbooks of secondary level. Another research in Pakistani context-focused Pakistan Studies textbooks' alignment with curriculum policy concerning Pakistani national identity (Muhammad & Brett, 2015). Moreover, Jabeen, Chaudhary, and Omar (2014) studied textbooks to analyze gender disparity in the Pakistani context following comparative discourse analysis. Besides, Tehreem (2017) evaluated English textbooks of 7<sup>th</sup> and 8<sup>th</sup> intending to examine language skill development. However, Gulzar and Mahmood (2018) analyzed mathematics textbooks and their alignment with SLOs of National Curriculum about the development of higher-order thinking skills

among students concluding that, "Virtually, no practice of mental processing is offered to students in these textbooks" (p.14), in respect to a specific school and single subject.

Thus, few studies have been conducted analyzing textbooks mostly for citizenship education, national identity, or gender discrimination, lacking the focus towards the reflection of critical thinking skills in textbooks. Therefore, the literature suggests a clear gap regarding critical thinking. Reflection of higher-order thinking skills in Pakistan Studies textbooks needs attention in the Pakistani context for further research at various levels because Pakistan Studies is aimed at creating critical and reflective citizenship among youth.

### Conceptual Framework of the Study

In the previous section, we proposed and reviewed the major theoretical underpinnings of revised Bloom's taxonomy and the analytic categories derived from the questions of Socratic taxonomy which was a framework used by Ilyas (2015). In this section, key points in the content analysis of textbooks used to explore the reflection of critical thinking skills in the text-based questions incorporated in the textbooks are summarized based on the connection and linkage of six levels of revised Bloom's taxonomy and Socratic questioning.

In addition, the researcher clearly defines the theoretical lens used to frame the current study. The six levels of Bloom's taxonomy suggest that the first three levels (remembering, understanding, applying) can be considered as lower-order thinking states, whereas the last three levels (analyze, evaluate, and create) depict higher-order thinking states. Hence, this approach provided a guideline regarding what to identify in critical thinking skills. As critical thinking is one of the higher-order thinking skills, it suggests that the ability to think critically must include the ability to analyze, evaluate, synthesize and generate. The components dealing with memorization, remembering, knowledge, understanding, and application of what is learned represent lower-order thinking skills, though needed but when it is said that education is essential to develop students into critical beings and problem solvers, the higher-order thinking skills are bring focused. Therefore, the conceptual framework of this study is comprised of two parts. Firstly, it is derived from the cognitive domains depicting six levels of revised Bloom's taxonomy. Secondly, the interconnection of those cognitive domains with the nine analytic categories derived from Socratic questioning.

Moreover, a schematic diagram of the conceptual framework is summarized and displayed in Figure 1.

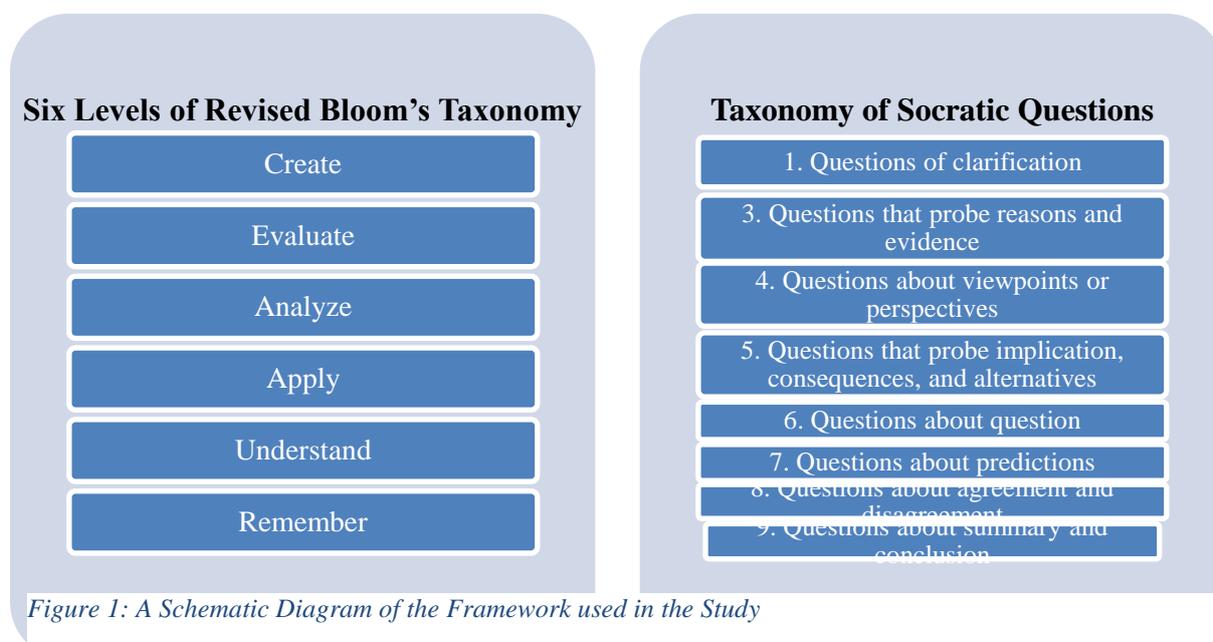


Figure 1: A Schematic Diagram of the Framework used in the Study

This figure is based on a concept map created to visually illustrate the relationships among the main concepts and ideas explored in this study. Analysis of text-based questions and categorizing them under the six levels of revised Bloom's Taxonomy, then relating them with the above framework of questions falling under pre-determined analytic categories which are agreed to be the questions

focusing critical thinking skills (Ilyas, 2015) to understand the type and quantity of questions conducive to develop critical thinking skills within students.

### **Methods and Materials**

The purpose of this study was to determine the extent to which the text-based questions and tasks incorporated in a secondary level textbook of Pakistan Studies are conducive to the development of students' critical thinking skills. Content analysis was used to answer the research questions of the study. There are two approaches to content analysis, quantitative and qualitative, described by different authors, but having common meaning regarding content analysis quantitatively or qualitatively. For qualitative content analysis, the researcher tends to interpret the textual data systematically, going through the text, again and again, identifying certain properties and making meaningful patterns (Hsieh & Shannon, 2005); differing from quantitative content analysis as it is all about quantifying the content and numerical representation of any repeated words or concepts (Bryman, 2012).

Moreover, qualitative content analysis is a process in which the researcher tends to follow a systematic approach, with guided techniques, to analyze textual content and interpret meanings to make sense (Forman & Damschroder, 2007). Also, the key point is to logically represent the abstraction level of categories and themes, their interpretation, and their connection with the purpose of the research (Granehim, Lindgren, & Lundman, 2017). While, Mayring (2014) is of the view that qualitative content analysis does not mean to be used as a research design for already existing textual information like newspapers, documents, textbooks etc. rather, it can be used for studies that produce their textual content like interview transcriptions. Nevertheless, document analysis, falling under the type of qualitative content analysis, is used as a research methodology for studies with vast textual materials, e.g. newspaper, institutional or government documentations, textbooks, webpages etc.

In addition, qualitative content analysis is a type of research method in which data is analyzed by defining it into categories based on similar meanings (Moretti et al., 2011). However, this method was criticized, because of its procedure to divide and simplify data into different categories which suggest jotting down information into quantifiable units (Cho & Lee, 2014). However, literature provides different debates advocating the use of content analysis qualitatively; for instance, Shreier (2012) is of the view that this method suggests a description of qualitative data in a systematic manner.

### **Data Collection Methods**

As the aim of the study reveals that the sample for this study is textbooks, not humans; therefore, data were collected simply from the Punjab Textbook Board textbook for ninth classes of Pakistan Studies taught at the secondary level.

The textbook used in this study was developed by the Punjab Curriculum and Textbook Board (PCTB) which develops textbooks based on the National Curriculum. The matriculation system of Pakistan consists of ninth and tenth classes. Islamic Studies, Urdu, English, and Pakistan Studies are considered as compulsory subjects, whereas other subjects are opted by the students as per the courses selected either science (with biology or computer) or humanities. Each subject consisted of one textbook published by the PTB board which was also available on official websites of PCTB. However, in this study, one textbook of Pakistan Studies was chosen for the study to analyze the extent to which text-based questions and tasks incorporated in them were conducive to the development of critical thinking skills in students. The selection of small sample was to do detailed content analysis to identify critical thinking related questions and tasks incorporated in the textbook.

### **Data Analysis Methods**

Qualitative content analysis is used for this study as a research design to have a deep and close reading of the textbooks, focusing on text-based questions and mentioned tasks for students, analyzing the questions, identifying characteristics regarding the development of critical thinking skills, and making meaningful patterns. This process followed the newly constructed framework by Ilyas (2015), which tends to focus on textbook task evaluation concerning critical thinking development based on theories provided by Bloom and Freeman taxonomies. Therefore, data is analyzed using a content analysis approach and analytic categories for coding the textual data.

Text-based questions in the two textbooks under study were firstly categorized under the six levels of revised Bloom's taxonomy, considering the first three (*Remembering, understanding, application*) as lower-order thinking levels while the last three (*analysis, evaluation, creation*) as

higher-order thinking levels, which were then analyzed based on certain elements present in them or not, that is, questions regarding *clarification, assumptions, reasons, evidence, viewpoints, perspectives, implications, consequences, alternatives, questions, predictions, agreement, disagreement, summaries and conclusions* (Ilyas, 2015).

The researcher read and reread all the exercise questions based on the text of the chapters, which was then analyzed and sorted based on six levels of revised Bloom's taxonomy. The levels could be stated as, remembering, understanding, applying, analyzing, evaluating, and creating a level. Remembering level deals with the memorization of the content, whereas the ability to comprehend the materials taught depict understanding level. Moreover, the third level deals with the application or usage of any known task. Leading to higher-order thinking skills, analyzing can be described as, "Analysing is the ability to breaking material into constituent parts, determining how the parts relate to one another and an overall structure or purpose through differentiating, organizing, and attributing" (Putri & Komariah, 2018, p. 149). However, the last two levels tend to focus on the ability to evaluate or make judgments and to create something new, respectively. The researcher coded the above-mentioned cognitive domains or levels as CR as remembering, CU as understanding, CAP as applying, CAN as analyzing, CE as evaluating, and CC as creating.

### Findings

In this study, a qualitative content analysis of one textbook was done to find out the reflection of critical thinking skills in text-based questions mentioned at the end of each chapter. The researcher analyzed the 9<sup>th</sup> grade Pakistan Studies textbook of Punjab Textbook Board published in 2017. The analysis was made based on revised Bloom's taxonomy levels and analytic categories derived from questions of Socratic taxonomy.

#### Analysis of Ninth Grade Pakistan Studies Textbook

The textbook was divided into five chapters naming *Ideological basis of Pakistan, Making of Pakistan, Land and Environment, History of Pakistan, and Protection of Women Rights*. Each chapter provided text related to topics falling under a similar category, given specific students learning outcomes before each chapter. At the end of the chapter, exercises were included which contained text-based questions, divided into four types, that is, *multiple-choice questions, match the columns, fill in the blanks, short answer questions, and detailed answer questions*. Each type was analyzed under the six levels of Bloom's taxonomy to explore whether text-based questions were conducive to the development of critical thinking skills or not.

The researcher analyzed the whole textbook based on the above-mentioned analysis criteria. Pakistan Studies textbook for ninth grade provided exercise text-based questions at the end of each chapter, which included MCQs, match the columns, fill in the blanks, short answer questions, and detailed answer questions which could be numerically represented as:

Table 1: Types and Chapter-wise Quantity of Text-based Exercise Questions

Types of exercise questions	Ch.1	Ch.2	Ch.3	Ch.4	Ch.5	Total
MCQs	12	14	8	15	7	56
Match the columns	5	5	5	5	-	20
Fill in the blanks	10	10	10	10	-	40
Short answer questions	13	15	13	15	4	60
Detailed answer questions	5	6	12	9	4	36

#### Analysis of Multiple-Choice Questions

Multiple Choice Questions are questions in which four options are given to a certain statement, out of which student has to choose the single correct answer. In total, the textbook provided 56 MCQ statements. And the result of the analysis revealed that almost all the MCQs fell in the cognitive domain of remembering level according to the revised Bloom's taxonomy. However, results could be represented in tabular form as:

Table 2: Chapter-wise MCQs Falling under the Levels of Bloom's Taxonomy

MCQs	CR	CU	CAP	CAN	CE	CC
Ch.1	12	-	-	-	-	-
Ch.2	14	-	-	-	-	-
Ch.3	8	-	-	-	-	-
Ch.4	14	1	-	-	-	-
Ch.5	7	-	-	-	-	-

Findings revealed the inclination of MCQs towards CR, that is, the knowledge level of Bloom's taxonomy, only concerned with the recalling of material, without any involvement of the thinking process. Questions like *which language was declared the national language after the establishment of Pakistan? A) Bengali b) Punjabi c) English d) Urdu* or *how much part of the total area of Pakistan is covered with forests? A) 0.5 b) 5 c) 15 d) 25* suggested the concern of textbook writers which seemed to be just the memorization of the content found in the text of a chapter. Along with the inquiry of dates, facts and figures or quantitative data, some too obvious and easy questions for a 9<sup>th</sup> grader were also observed like *the national animal of Pakistan is A) Chakor b) Markhor c) Deer d) Lion*, which could be answered without the involvement of any higher-order thinking skills. Moreover, out of 56 MCQs, only one statement, that is, *the growth of an economy from backward to the advanced economy is known as: a) backwardness b) employment c) economic development d) balance of payments*, seemed to fall under the understanding category in which somehow the understanding of a certain phenomenon was required to choose the right answer. Lastly, most of the MCQs were designed to make students recall and memorize the important times, dates, events, and personalities as the statements focus on "When", "How many", "Who" and "What" for instance, *who presented the Pakistan Resolution? A) A.K Fazl-ul-Haq b) Allama Iqbal c) Moulana Muhammad Ali Johar d) Sir Agha Khan*, *What is the number of the Helpline which can be used to report cases of Violence against Women? A) 1023 b) 1043 c) 1068 d) 1010* and *When was the Battle of Palais fought? A) 1557 b) 1657 c) 1757 d) 1857*.

Therefore, results from the analysis of MCQs in the Pakistan Studies textbook of 9<sup>th</sup> grade were not conducive to developing critical thinking skills in students. Based on text-based multiple-choice questions concerning levels of Bloom's taxonomy, it was concluded that all the questions fell under the domain of CR as none of the questions fell under the pre-determined analytic categories derived from the taxonomy of Socratic questions, as those categories only dealt with the questions encouraging the development of higher-order thinking skills.

#### Analysis of 'match the columns' and 'fill in the blanks'

The two types of questions 'match Column A with Column B' and 'fill in the blanks' dealt with the memorization of the content, as the textbook writers took the exact statements from the text of the chapter and students had to fill in the blank with "that" word written in the text of the chapter, which meant that students are not required to think anything rather just remember and rot learn.

Table 3: Chapter-wise Match the Columns Falling under the Levels of Bloom's Taxonomy

Match the columns	CR	CU	CAP	CAN	CE	CC
Ch.1	5	-	-	-	-	-
Ch.2	5	-	-	-	-	-
Ch.3	5	-	-	-	-	-
Ch.4	5	-	-	-	-	-

Table 3 represents that all the 'match the columns' questions fall under the domain of CR, which can be elaborated using some examples from the Pakistan Studies textbook of ninth grade understudy.

Thus, students need to rot-learn the dates of the important events and decisions to answer the above table correctly. Other chapters' exercises mentioned similar items based on knowledge and remembering level to be solved. Therefore, the researcher concluded that all the match the column items were focusing on lower-order thinking skills. None could be said to be conducive to the development of critical thinking skills.

Table 4: Chapter-wise 'Fill in the Blanks' Questions Falling under the Levels of Bloom's Taxonomy

Fill in the Blanks	CR	CU	CAP	CAN	CE	CC
Ch.1	10	-	-	-	-	-
Ch.2	10	-	-	-	-	-
Ch.3	10	-	-	-	-	-
Ch.4	10	-	-	-	-	-

The researcher analyzed the statements of fill in the blanks mentioned at the end of each chapter like Northern mountain ranges make the Northern \_\_\_\_\_ of Pakistan secured to a great extent, President Ayub Khan introduced a new system of \_\_\_\_\_ in 1959 and Moulvi Tameez-ud-Din was the \_\_\_\_\_ of the first Constitution Assembly of Pakistan, and concluded that all the statements were not only text-based rather the exact text statements and the students were required to

fill the blanks without going through any thinking process but recalling and memorizing of the chapter content would be helpful to fill the blanks with the right missed a word.

Those statements which were not taken as it is from the text, were related to important dates, events, places or personalities like Liaquat-Nehru Pact was made in \_\_\_\_\_, Forests cover \_\_\_\_\_% of the total area in Pakistan or The \_\_\_\_\_ Mission proposed to make India a Union, again dealing with memory and knowledge of students. Therefore, all the forty statements of fill in the blanks provided in the textbook were related to the knowledge-based category, concerned with CR level.

### Analysis of Short Answer Questions

Short answer questions is that category of questions in which students are required to give a two to three line answer to the question without any detail or explanation (Horbach, 2019). It represents the "to the point" answer to any question. The textbook under study provided sixty short answer questions which were then analyzed based on levels of Bloom's taxonomy.

Table 5: Chapter-wise Short-answer Questions Falling under the Levels of Bloom's Taxonomy

Short Answer Questions	CR	CU	CAP	CAN	CE	CC
Ch.1	8	5	-	-	-	-
Ch.2	12	3	-	-	-	-
Ch.3	11	2	-	-	-	-
Ch.4	11	4	-	-	-	-
Ch.5	3	1	-	-	-	-

Above mentioned figures regarding the numbers of short answer questions given in text-based exercises of the textbook under study represents the inclination of each chapter's short answer question towards the enhancement of knowledge and focus on recalling the content, few seemed to fall under the CU domain, that is, could not be answered without an understanding of the phenomenon.

Examples from the short answer questions included in the textbook could give a better understanding and evidence to the claim researcher made. Therefore, questions like *what was the reply of Quaid-e-Azam in Jinnah-Gandhi talks 1944? Write the names of five glaciers located in Pakistan or what were the targets of the 2<sup>nd</sup> Five Year Development Plan*; all suggested that students were required to memorize the information from the text of the chapter. Out of sixty short answer questions, forty-five questions fall under the cognitive domain of CR.

Few questions were designed in a way that students needed understanding and comprehension of the phenomenon to write a few sentences in answer, for instance, *how did India occupy Kashmir? What are the hazards to our environment nowadays? Or What is the importance of Afghanistan and the countries of Central Asia for Pakistan?* Without having clarification of the content or meaning of the concept, it would be impossible for students to answer such questions; therefore, the researcher included such questions in the understanding level of Bloom's taxonomy.

Table 6: Short-answer Questions Categorized under nine Pre-determined Analytic Categories

Nine pre-determined analytic categories	No. of short answer questions
Questions of clarification	15
Questions that probe assumptions	-
Questions that probe reasons and evidence	-
Questions about viewpoints or perspectives	-
Questions that probe implication, consequences, and alternatives	-
Questions about question	-
Questions about predictions	-
Question about agreement and disagreement	-
Questions about summary and conclusion	-

Moreover, when short answer questions were analyzed based on analytic categories derived from taxonomy of Socratic questions, somehow, CU questions like 'what do you mean by Faith in Prophethood?' or 'what do you mean by Economic Development?' fell under the category of "questions of clarification" as these showed correspondence with the sample questions like "what do you mean by \_\_\_\_\_?" enlisted by Paul (1990) while explaining 'questions of clarification'. Therefore, findings revealed that fifteen questions of CU level fell under the category of 'questions of clarification' as such questions required the understanding and comprehension of the phenomenon or concept to answer the question.

### Analysis of Detailed Answer Questions

For answering any question in detail, it is required to discuss, describe and explain different aspects of the phenomenon, process or content asked in the question, for which a clear understanding and comprehension is needed. For the analysis of this part, a researcher focused on the action verbs used in the questions, for instance, narrate, state, describe, discuss, study, etc. as these action verbs define the demand of questions to be answered accordingly. Moreover, various action verbs fall under different levels of Bloom's taxonomy. It is viewed that the action verbs like recalling and recognizing deals with remembering level, understanding level take verbs like explaining, classifying or interpreting, application levels focus on verbs like executing and implementing, whereas three higher order thinking levels, that is, analysis, evaluation, and creation deal with action verbs like differentiating or attributing, checking or critiquing, and generating respectively (Forehand, 2010). Therefore, taking these action verbs into an account, the researcher analyzed the detailed answer questions mentioned in chapter exercises of the Pakistan Studies textbook for 9<sup>th</sup> grade.

Table 7: Chapter-wise Detailed-answer-questions Falling under the Levels of Bloom's Taxonomy

Detailed answer questions	CR	CU	CAP	CAN	CE	CC
Ch.1	-	5	-	-	-	-
Ch.2	3	3	-	-	-	-
Ch.3	4	8	-	-	-	-
Ch.4	2	5	-	-	-	-
Ch.5	-	3	-	1	-	-

Findings revealed that out of thirty-six detailed answer questions twenty-four (24) questions dealt with the understanding and comprehension to be answered appropriately; for instance, questions like 'Describe the background of the Pakistan Resolution, its basic points and the reaction of Hindus at the approval of this Resolution.' And 'Explain in how many temperature regions Pakistan is divided?' therefore, it is clear that to provide description and explanation of any content, process, or phenomenon, clarity and understanding of that particular concept is a must. Hence, such questions fall under the cognitive domain of CU (understanding level). Moreover, questions like 'Elaborate "How does climate affect the human life."' and 'Elaborate important points of Objectives Resolution' depicted that CU level deals with memorization of the content along with the understanding to provide elaboration and description. Similarly, questions in which examples were needed for elaboration, for instance, *what is the status of women in Islam? Answer in the light of examples from Quran/ Hadith* required the understanding of the concept by exemplifying it

Also, the researcher analyzed the questions and concluded that nine detailed answer questions simply fell under the remembering level as those focused only on the memorization of the content, as it is from the text of the chapter. Thus, questions like 'Narrate the main points of the 3<sup>rd</sup> June 1947 Plan'. And 'Write salient features of the Constitution of 1962' demanded students to answer questions through recalling and remembering the content. Along with this, only one question was considered in the CAN analysis level based on the action verb used, and students were required to think it over critically and analyze different aspects or ideas of the phenomenon. The question conducive to develop critical thinking skills; 'Analyse the common ideas about Violence against Women', demanded students to think out of the box and provide various ideas regarding women violence.

Table 8: Detailed-answer-questions Categorized under Nine Pre-determined Analytic Categories

Nine pre-determined analytic categories	No. of short answer questions
Questions of clarification	1
Questions that probe assumptions	-
Questions that probe reasons and evidence	1
Questions about viewpoints or perspectives	1
Questions that probe implication, consequences, and alternatives	-
Questions about question	-
Questions about predictions	-
Question about agreement and disagreement	-
Questions about summary and conclusion	-

The researcher analyzed the detailed answer questions based on nine analytic categories derived from the taxonomy of Socratic questions, which somehow showed inclination of 1 CU level questions towards clarification, that is, 'What is meant by the drainage system? Write in detail.' and 1 CU question towards reasoning question, a question dealing with 'Why' and 'How' of a certain event,

that is, 'Why were the elections of 1945-46 held? How did the results of these elections benefit the Muslims? Whereas 1 CAN question, that is, 'Analyze the common ideas about Violence against Women' fell under the category of 'questions about viewpoints and perspectives', as not explicitly, but different viewpoints and various ideas regarding violence against women were required in answer to these questions.

In conclusion, it was observed and analyzed by the researcher that most of the text-based exercise questions, regardless of their types, were not conducive to develop critical thinking skills among ninth graders. The textbook writers focused on the memorization of the text, either through under the cognitive domain of CU or CR, inclined towards lower-order thinking skills.

### **Discussions**

Though the last three levels of revised Bloom's taxonomy are considered as higher-order thinking levels, in which critical thinking skills are involved; however, the first three levels are of much importance, being hierarchical. The first three levels suggest a student have the content knowledge, develop comprehension and apply accordingly, leading towards the skill development of non-hierarchical levels of analysis (Ahrash & Paula, 2006). Keeping this fact in view, if the inclusion of a greater percentage of questions that challenge critical thinking skills in textbooks is not possible, at least, homogenous distribution of questions should be taken into account while developing exercise questions.

Furthermore, this analysis was carried out on only text-based questions provided at the end of the chapter, which does not mean that the statements of questions must be from the text or exactly require the information mentioned in the chapter if so, no thinking process will be involved. Therefore, based on nine different pre-determined analytic categories mentioning types of questions that challenge high-order thinking, the researcher claimed that there is a need to design the questions appropriately to get the answer accordingly, for instance, the question "*Analyze the relations between Pakistan and India*" could be asked as "Kashmir is the major reason of turbulence in relations between Pakistan and India, describe with your perspective". The part 'describe your perspective' can be replaced with '*could you explain your reasons to us?*' suggesting 'questions that probe reasons and evidence' or '*Can/did anyone see this another way?*' from the 'Questions about viewpoints and perspectives' (Paul, 1990). Thus, the clarity and openness in statements of questions, not only determine the categories but also challenges the critical thinking skills of students explicitly.

Besides, the results suggested the need and necessity of incorporation of critical thinking skills in text-based questions of textbooks, which calls for the importance of the subject selected. It is obvious that studying about one's country is concerned with the development of a sense of citizenship, unity, and patriotism among the learners, and critical thinking is considered as an essential competency to play a successful role in social practices and communities within which they live (Dam & Volman, 2004). Therefore, the main objective of developing citizenship in secondary level graders could only be achieved if they study textbooks (topics and questions) aligned with critical thinking skills.

Previous studies in the Pakistani context, the textbooks of Social Studies and Pakistan Studies were analyzed, focusing on the aspects of national identity, citizenship, or gender discrimination. This study provided not only the reflection of critical thinking skills in textbooks but also an understanding regarding the need for homogeneous distribution of questions among the levels of Bloom's taxonomy. Moreover, the analysis of questions following nine analytic categories gave guidelines to design text-based questions conducive to developing critical thinking skills.

Every study has its limitations and constraints, which calls for continuity in the research process, fulfilling the gaps and addressing the hindrances is required to update different Studies with time. Here, the researcher took a specific textbook and analyzed only text-based questions, ignoring the practical works which were not text-based. Though, not the part of examination but those works were mentioned in the textbooks which could be analyzed based on solo taxonomy to explore the need for alignment between assessments, teaching sessions, and learning outcomes, which could be the future recommendation of this study. In short, it can be stated that Pakistan Studies textbooks still need to be designed to promote and inculcate critical thinking skills to make students critical beings, problem solvers, and decision-makers which is the need of the hour.

## **Conclusion**

Critical thinking is one of the essential and imperative life skills, especially in the educational field as it is the skill through which learners tend to solve problems, make decisions, find evidence, analyze situations and synthesize or generate ideas (Nanik, Maya, & Habibah, 2018). Though this study revealed that the content of the selected textbook showed an inclination towards lower-order thinking skills, but it should be taken into account that to process higher-order thinking skills, one must need the ability to memorize, comprehend and apply; therefore, considering that lower-order thinking skills and higher-order thinking skills are not separable, rather textbooks writers must use a blended and balanced approach (Utami, Liahmad, & Rusnindita, 2019). Furthermore, textbooks are the source through which one achieves the desired learning outcomes of any subject (Khutorskoi, 2006); therefore, if the focus is to achieve the desired learning outcome of inculcating critical thinking skills among the students, a reflection of the desired skills mentioned in curriculum objectives, must be observed in textbook content as stated by Ali, Akhter, and Nawaz (2017, p. 114) "Textbooks are written to facilitate learners to access the curriculum."

In conclusion, the results of this qualitative content analysis for a selected textbook revealed that the text-based questions being introduced in ninth grade failed to meet the criteria and definition of critical thinking or high-order thinking skills mentioned in literature. It might be because of the types of questions as most questions comprised of multiple-choice questions, fill in the blanks, and match the columns which confined the thinking process (Venderhook, 2020), leading towards rote memorization of the content.

## **Recommendations for Policy and Practice**

The analysis of the Pakistan Studies textbook presented in this research revealed that Pakistani curriculum developers and textbook writers need to focus more on the development of higher-order thinking skills within their students. The content of textbooks and the formation of text-based questions is worth attention. To inculcate the desired characteristics into the students of the nation, the textbooks and their alignment with National Curriculum policies play a vital role. There is an immense need of imposing emphasis on the inculcation of such content, conducive to 21<sup>st</sup>-century skills to produce critical thinkers, problem solvers, and decision-makers. The addition of critical and creative questions or activities in the textbooks of any subject would motivate students to think out of the box and observe the topics from different perspectives.

As the analysis suggests that textbooks of secondary level are not conducive to developing critical thinking skills among students, it represents the misalignment of textbooks with the National Curriculum agenda. Therefore, textbooks recommended by the government for educational institutions of Pakistan need to be aligned with the educational policies of the country. The National Curriculum of Pakistan Studies emphasizes the need "to encourage traits of observation, analysis, creativity, analysis, and reflection in students" (Govt. of Pakistan, 2006, p.5). Though the learning outcomes were mentioned at the beginning of each chapter of Pakistan Studies textbooks, they also dealt with the lower order thinking levels. Moreover, the analysis based on levels of revised Bloom's taxonomy gave a clear insight for designing questions, suggesting the level of thinking skills required from students. The nine analytic categories represented how the questions either text-based or the general activities need to fall under certain categories that challenge students' critical thinking skills. Textbooks need to be revised according to the National Educational policies and National Curriculum, to update the topics to make it conducive to developing 21<sup>st</sup>-century skills values or other desired characteristics.

## **Suggestions for Future Research**

Depending on the findings of this research study, suggestions can be mentioned for future studies. Firstly, more research is needed using different subject textbooks, whether the humanities subjects or the science, to get an appropriate and complete insight of reflection of critical thinking skills in textbooks. In addition, a comparison of teacher's perceptions and textbook content regarding the development of critical thinking skills would be interesting as it could reveal how teachers perceive the content of textbooks and text-based questions in relation to critical thinking skills. Secondly, textbooks need to be evaluated, following different theories or taxonomies explaining higher-order thinking processes or else, to maintain the strengths of textbooks and remove weaknesses or flaws within them. Finally, the work on critical thinking skills in the context of Pakistan is much confined which needs to be expanded to understand the definition of critical thinking skills from different

perspectives, which would then broaden the area of critical thinking skills for further studies to be conducted in the Pakistani context.

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